Traditional methods v. new technologies – dilemmas for dietary assessment in large-scale nutrition surveys and studies: a report following an international panel discussion at the 9th International Conference on Diet and Activity Methods (ICDAM9), Brisbane, 3 September 2015

The aim of the present paper is to summarise current and future applications of dietary assessment technologies in nutrition surveys in developed countries. It includes the discussion of key points and highlights of subsequent developments from a panel discussion to address strengths and weaknesses of traditional dietary assessment methods (food records, FFQ, 24 h recalls, diet history with interviewer-assisted data collection) v. new technology-based dietary assessment methods (web-based and mobile device applications). The panel discussion 'Traditional methods v. new technologies: dilemmas for dietary assessment in population surveys’ was held at the 9th International Conference on Diet and Activity Methods (ICDAM9), Brisbane, September 2015. Despite respondent and researcher burden, traditional methods have been most commonly used in nutrition surveys. However, dietary assessment technologies offer potential advantages including faster data processing and better data quality. This is a fast-moving field and there is evidence of increasing demand for the use of new technologies amongst the general public and researchers. There is a need for research and investment to support efforts being made to facilitate the inclusion of new technologies for rapid, accurate and representative data.
Dietary Fat Intake and Fecundability in 2 Preconception Cohort Studies

The association between dietary fat and fertility is not well studied. We evaluated intakes of total fat, saturated fatty acids, monounsaturated fatty acids, polyunsaturated fatty acids, trans fatty acids (TFA), ω-3 fatty acids, and ω-6 fatty acids in relation to fecundability in Danish and North American preconception cohort studies. Women who were attempting to become pregnant completed a validated food frequency questionnaire at baseline. Pregnancy status was updated bimonthly for 12 months or until pregnancy. Fecundability ratios (FR) and 95% confidence intervals were estimated using multivariable proportional probabilities regression. Intakes of total fat and saturated, monounsaturated, polyunsaturated, and ω-6 fatty acids were not appreciably associated with fecundability. TFA intake was associated with reduced fecundability in North American women (for the fourth quartile vs. the first, FR = 0.86, 95% confidence interval (CI): 0.71, 1.04) but not Danish women (for the fourth quartile vs. the first, FR = 1.04, 95% CI: 0.86, 1.25), though intake among Danish women was low. In North America, ω-3 fatty acid intake was associated with higher fecundability, but there was no dose-response relationship (among persons who did not use fish oil supplements: for the fourth quartile vs. the first, FR = 1.40, 95% CI: 1.13, 1.73); no association was found in Danish women, among whom low intake was rare. In the present study, high TFA intake and low ω-3 fatty acid intake were associated with reduced fecundity.

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BFI (2013): BFI-level 2
Scopus rating (2013): SJR 3.033 SNIP 2.09 CiteScore 4.55
ISI indexed (2013): ISI indexed yes
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Scopus rating (2012): SJR 2.866 SNIP 2.01 CiteScore 4.56
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Geographic and socioeconomic diversity of food and nutrient intakes: a comparison of four European countries

Purpose
Public health policies and actions increasingly acknowledge the climate burden of food consumption. The aim of this study is to describe dietary intakes across four European countries, as baseline for further research towards healthier and environmentally-friendlier diets for Europe.

Methods
Individual-level dietary intake data in adults were obtained from nationally-representative surveys from Denmark and France using a 7-day diet record, Italy using a 3-day diet record, and Czech Republic using two replicates of a 24-h recall. Energy-standardised food and nutrient intakes were calculated for each subject from the mean of two randomly selected days.

Results
There was clear geographical variability, with a between-country range for mean fruit intake from 118 to 199 g/day, for vegetables from 95 to 239 g/day, for fish from 12 to 45 g/day, for dairy from 129 to 302 g/day, for sweet beverages from 48 to 224 ml/day, and for alcohol from 8 to 15 g/day, with higher intakes in Italy for fruit, vegetables and fish, and in Denmark for dairy, sweet beverages and alcohol. In all countries, intakes were low for legumes (<20 g/day), and nuts and seeds (<5 g/day), but high for red and processed meat (>80 g/day). Within countries, food intakes also varied by socio-economic factors such as age, gender, and educational level, but less pronounced by anthropometric factors such as overweight status. For nutrients, intakes were low for dietary fibre (15.8–19.4 g/day) and vitamin D (2.4–3.0 µg/day) in all countries, for potassium (2288–2938 mg/day) and magnesium (268–285 mg/day) except in Denmark, for vitamin E in Denmark (6.7 µg/day), and for folate in Czech Republic (212 µg/day).

Conclusions
There is considerable variation in food and nutrient intakes across Europe, not only between, but also within countries. Individual-level dietary data provide insight into the heterogeneity of dietary habits beyond per capita food supply data, and this is crucial to balancing healthy and environmentally-friendly diets for European citizens.
Bag om Måltidsmærket: Udvikling og afprøvning af mærkets principper for sund kantinemad

General information
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Organisations: National Food Institute, Division of Risk Assessment and Nutrition
Authors: Lassen, A. D. (Intern), Christensen, L. M. (Intern), Trolle, E. (Intern)
Number of pages: 10
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Flere grøntsager og fuldkornsprodukter i skolemad

General information
State: Published
Organisations: National Food Institute, Division of Risk Assessment and Nutrition
Authors: Christensen, L. M. (Intern), Trolle, E. (Intern), Lassen, A. D. (Intern)
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Intake and sources of gluten in 20- to 75-year-old Danish adults: a national dietary survey
PURPOSE: Celiac disease, an immunological response triggered by gluten, affects ~1 % of the Western population. Information concerning gluten intake in the general population is scarce. We determined intake of gluten from wheat, barley, rye and oat in the Danish National Survey of Diet and Physical Activity 2005-2008. The study population comprised a random cross-sectional sample of 1494 adults 20-75 years, selected from the Danish Civil Registration System.
METHODS: Protein content in wheat, rye, barley and oat was determined from the National Danish Food Composition Table and multiplied with the amount of cereal used in recipes. Amount of gluten was calculated as amount of cereal protein ×0.80 for wheat and oat, ×0.65 for rye and ×0.50 for barley. Dietary intake was recorded daily during seven consecutive days in pre-coded food diaries with open-answer possibilities. RESULTS: Mean total gluten intake was 10.4 ± 4.4 g/day (10th-90th percentiles; 5.4-16.2 g/day), in men 12.0 ± 4.6 g/day and 9.0 ± 3.4 g/day in women. It was higher among men than among women in all age groups (20-75 years; P <0.0001); however, this difference was eliminated when adjusting for energy intake. Intake of different gluten sources tended to be higher in men than in women with the exception of gluten from barley. Total gluten intake decreased with increasing age (P <0.0001) as did gluten intake from wheat (P <0.0001), whereas intake of gluten from rye (P <0.0001) and barley (P = 0.001) increased with increasing age, also when adjusted for energy intake or body weight. CONCLUSION: This study presents representative population-based data on gluten intake in Danish adults. Total gluten intake decreased with increasing age.

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Danskernes kostvaner nu og i fremtiden

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Organisations: National Food Institute, Division of Risk Assessment and Nutrition
Authors: Fagt, S. (Intern), Biltoft-Jensen, A. P. (Intern), Sørensen, M. R. (Intern), Trolle, E. (Intern), Christensen, T. (Intern), Matthiessen, J. (Intern)
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Dietary adequacy of lunch meals served and consumed at Danish daycare centers

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Dietary adequacy of lunch meals served and consumed at Danish daycare centers

General information
State: Published
Organisations: National Food Institute, Division of Risk Assessment and Nutrition, Research Group for Risk-Benefit
Authors: Tørsleff, E. H. (Intern), Trolle, E. (Intern), Tetens, I. (Intern), Lassen, A. D. (Intern)
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Gender differences in purchase intentions and reasons for meal selection among fast food customers – Opportunities for healthier and more sustainable fast food

Understanding the factors that influence food selection and dietary behavior is fundamental to support the successful translation of dietary goals into consumer behavior. The present study aims to identify gender differences in fast food consumers’ reasons for actual fast food meal selection and their purchase intentions. Based on this background, possible opportunities toward implementing healthier and more sustainable fast food options are discussed. Data were collected at three fast food restaurants from different parts of Denmark among randomly selected customers (aged 15 or above). The customers were approached after having ordered their meal. They filled out a questionnaire on reasons for their actual fast food meal selection and purchase intentions in relation to four hypothesized burger menus, including a regular beef burger menu, a wholegrain beef burger menu, a nutrition labeled beef burger menu and a nutrition labeled chicken burger menu.

Results showed that the majority of the fast food customers expressed a wish for healthier menus (55% males vs. 64% females agree or strongly agree, p < 0.001) and more sustainable menus in terms of environmental impact (43% males vs. 52% females agree or strongly agree, p < 0.001), however only 7% of the participants’ meals included healthier food choices (n = 740). Habits, taste and price were the main drivers among both genders for the actual meal selection. Compared with women, more men expressed that actual food choice was based on offers and promotions (p < 0.001), and on food perceived as the most satiating (p = 0.001). With regard to purchase intentions, the majority of men preferred a beef burger menu (healthier or regular) over a healthier chicken burger menu or a wholegrain burger menu, whereas the majority of women responded positively to either of the healthier-labeled burger menus (p < 0.001). In conclusion, the study shows that having a focus on gender differences is of particular importance in order to improve the food nutrition environment and support healthier food selections among fast food customers.
Infant Gut Microbiota Development Is Driven by Transition to Family Foods Independent of Maternal Obesity

The first years of life are paramount in establishing our endogenous gut microbiota, which is strongly affected by diet and has repeatedly been linked with obesity. However, very few studies have addressed the influence of maternal obesity on infant gut microbiota, which may occur either through vertically transmitted microbes or through the dietary habits of the family. Additionally, very little is known about the effect of diet during the complementary feeding period, which is potentially important for gut microbiota development. Here, the gut microbiotas of two different cohorts of infants, born either of a random sample of healthy mothers (n = 114), or of obese mothers (n = 113), were profiled by 16S rRNA amplicon sequencing. Gut microbiota data were compared to breastfeeding patterns and detailed individual dietary recordings to assess effects of the complementary diet. We found that maternal obesity did not influence microbial diversity or specific taxon abundances during the complementary feeding period. Across cohorts, breastfeeding duration and composition of the complementary diet were found to be the major determinants of gut microbiota development. In
both cohorts, gut microbial composition and alpha diversity were thus strongly affected by introduction of family foods with high protein and fiber contents. Specifically, intake of meats, cheeses, and Danish rye bread, rich in protein and fiber, were associated with increased alpha diversity. Our results reveal that the transition from early infant feeding to family foods is a major determinant for gut microbiota development.

**General information**

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**Organisations:** National Food Institute, Research Group for Gut Microbiology and Immunology, Division of Risk Assessment and Nutrition, University of Copenhagen  
**Authors:** Laursen, M. F. (Intern), Andersen, L. B. B. (Ekstern), Michaelsen, K. F. (Ekstern), Mølgaard, C. (Ekstern), Trolle, E. (Intern), Bahl, M. I. (Intern), Licht, T. R. (Intern)  
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Web of Science (2009): Indexed yes  
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Scopus rating (2007): SJR 2.458 SNIP 0.883  
Scopus rating (2006): SJR 2.667 SNIP 0.912  
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Infant Gut Microbiota Development Is Driven by Transition to Family Foods Independent of Maternal Obesity

The first years of life are paramount in establishing our endogenous gut microbiota, which is strongly affected by diet and has repeatedly been linked with obesity. However, very few studies have addressed the influence of maternal obesity on infant gut microbiota, which may occur either through vertically transmitted microbes or through the dietary habits of the family. Additionally, very little is known about the effect of diet during the complementary feeding period, which is potentially important for gut microbiota development. Here, the gut microbiotas of two different cohorts of infants, born either of a random sample of healthy mothers (n = 114), or of obese mothers (n = 113), were profiled by 16S rRNA amplicon sequencing. Gut microbiota data were compared to breastfeeding patterns and detailed individual dietary recordings to assess effects of the complementary diet. We found that maternal obesity did not influence microbial diversity or specific taxon abundances during the complementary feeding period. Across cohorts, breastfeeding duration and composition of the complementary diet were found to be the major determinants of gut microbiota development. In both cohorts, gut microbial composition and alpha diversity were thus strongly affected by introduction of family foods with high protein and fiber contents. Specifically, intake of meats, cheeses and Danish rye bread, rich in protein and fiber, were associated with increased alpha diversity. Our results reveal that the transition from early infant feeding to family foods is a major determinant for gut microbiota development.

More Nordic adults with an unhealthy diet: 2011 to 2014: Monitoring of diet, physical activity and overweight in the Nordic countries

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Plantebaserede kosttilskud – et kvalitativt studie af årsager, motiver og viden

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Authors: Nielsen, M. M. (Intern), Fagt, S. (Intern), Trolle, E. (Intern), Sørensen, M. R. (Intern)
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Saltindhold i brød og morgenmadscerealier

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Number of pages: 5
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Organisations: National Food Institute, Division of Risk Assessment and Nutrition, Professionshøjskolen Metropol
Authors: Fagt, S. (Intern), Larsen, R. (Ekstern), Trolle, E. (Intern)
Pages: 234-275
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Editors: Larsen, R., Fisker, S.
The effects of water and dairy drinks on dietary patterns in overweight adolescents

The aim was to investigate the effects of increased water or dairy intake on total intake of energy, nutrients, foods and dietary patterns in overweight adolescents in the Milk Components and Metabolic Syndrome (MoMS) study (n=173). Participants were randomly assigned to consume 1l/d of skim milk, whey, casein or water for 12 weeks. A decrease in the dietary pattern called Convenience Food, identified by principal component analysis, was observed during the intervention both in the water and dairy groups. Total energy intake decreased by 990.9kJ/d (236.8kcal/d) in the water group but was unchanged in the dairy group during intervention. To conclude, an extra intake of fluid seems to favourably affect the rest of the diet by decreasing the intake of convenience foods, including sugar-sweetened beverages. A low energy drink, such as water, seems advantageous considering the total energy intake in these overweight adolescents. This study is registered at clinicaltrials.gov (NCT00785499).

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Authors: Andersen, L. B. B. (Ekstern), Arnberg, K. (Ekstern), Trolle, E. (Intern), Michaelsen, K. F. (Ekstern), Bro, R. (Ekstern), Pipper, C. B. (Ekstern), Mølgaard, C. (Ekstern)
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BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.53 SNIP 0.661 CiteScore 1.58
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.486 SNIP 0.696 CiteScore 1.41
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ISI indexed (2013): ISI indexed yes
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Scopus rating (2012): SJR 0.509 SNIP 0.744 CiteScore 1.26
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Scopus rating (2011): SJR 0.521 SNIP 0.757 CiteScore 1.32
ISI indexed (2011): ISI indexed yes
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Scopus rating (2010): SJR 0.418 SNIP 0.433
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.497 SNIP 0.743
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.491 SNIP 0.682
Variation in modelled healthy diets based on three different food patterns identified from the Danish national diet – and the impact on carbon footprint Nordic Nutrition Conference, Gothenburg 2016 (poster)

Background and aims: A healthy diet complies with the national food-based dietary guidelines (FBDG) and Nordic nutrition recommendations (NNR2012). In this study we aim at 1) developing new healthy diet compositions by a simple diet modelling technique that ensures a nutrient content in accordance with the recommended values and depending on food preferences and habits, and 2) further optimizing the diet composition with regard to carbon footprint (CF).

Methods: We used a simple modelling of the 'Traditional', 'Health conscious' and 'Fast food' patterns identified from national dietary data (1)Knudsen et al. 2014) into isocaloric healthy diets that fulfil the Danish FBDGs and NNR2012 with respect to both micro- and macronutrients. Furthermore we updated the list of estimated carbon footprint (CF) of food items included in the diets and further optimized the diet composition with regard to CF. Extension of modelling was used to optimise the diets with regard to their estimated carbon footprint (CF).
Results: Around 365 food items are included in the three food patterns. Based on literature CF of these foods is updated, including the contribution from waste, transportation and cooking at home. Despite variation in the amounts of contribution of foods in each food group and in the composition of foods within each food group, the estimated CFs of the modelled healthy dietary patterns are similar to original Danish patterns. CFs of the CF-optimized dietary patterns similar to each other, and CF of CF-optimized dietary patterns are approx. 25% lower. Only a small contribution to CF from transportation and cooking at home.

Conclusion: Different dietary patterns can fulfill dietary recommendations. Specific optimization is needed to lower the CF of the diets.

General information
State: Published
Organisations: National Food Institute, Division of Risk Assessment and Nutrition, Aarhus University
Authors: Trolle, E. (Intern), Thorsen, A. V. (Intern), Mogensen, L. (Ekstern), Christensen, T. (Intern)
Number of pages: 1
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Background and aims: A healthy diet complies with the national food-based dietary guidelines (FBDG) and Nordic nutrition recommendations (NNR2012). In this study we aim at 1) developing new healthy diet compositions by a simple diet modelling technique that ensures a nutrient content in accordance with the recommended values and depending on food preferences and habits, and 2) further optimizing the diet composition with regard to carbon footprint (CF).

Methods: We used a simple modelling of the ‘Traditional’, ‘Health conscious’ and ‘Fast food’ patterns identified from national dietary data (1)Knudsen et al. 2014) into isocaloric healthy diets that fulfil the Danish FBDGs and NNR2012 with respect to both micro- and macronutrients. Furthermore we updated the list of estimated carbon footprint (CF) of food items included in the diets and further optimized the diet composition with regard to CF. Extension of modelling was used to optimise the diets with regard to their estimated carbon footprint (CF).

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Conclusion: Different dietary patterns can fulfill dietary recommendations. Specific optimization is needed to lower the CF of the diets.

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Organisations: National Food Institute, Division of Risk Assessment and Nutrition, Research Group for Risk-Benefit, Division of Nutrition
Development of Dietary Patterns Spanning Infancy and Toddlerhood: Relation to Body Size, Composition and Metabolic Risk Markers at Three Years

Little is known about the development of dietary patterns during toddlerhood and the relation to growth and health. The study objective was to characterise the development of dietary patterns from 9-36 mo of age and investigate the association to body size, body composition and metabolic risk markers at 36 mo. Food records were filled out at 9, 18 and 36 mo of age (n = 229). Dietary patterns were identified by principal component analysis (PCA). Three dietary patterns were identified: Transition Food, Healthy Food and Traditional Food. The course of development in dietary patterns from 9-36 mo indicated tracking for a relatively large group of participants in the three patterns. Transition Food and Healthy Food were associated with some of the investigated outcomes. Children with lower adherence to the Transition Food pattern than average at 18 and 36 mo irrespectively of intake at 9 mo had higher BMI z-scores at 36 mo. Similar trend was identified for higher fat mass indices. Children with lower adherence to the Healthy Food pattern than average at all three ages compared to children with higher adherence to the Healthy Food pattern at the first two registrations, 9 and 18 mo had higher total cholesterol and LDL. Hence, this could represent undesirable development of dietary patterns in toddlers. In conclusion, development of dietary patterns can be exploratory characterised by PCA and related to potential cardiovascular risk markers in toddlers even within a relatively homogeneous population with a high socioeconomic status. The tracking of dietary patterns from 9 mo of age indicates a need for early and sustained promotion of healthy diets.

Intervention effects on dietary intake among children by maternal education level: results of the Copenhagen School Child Intervention Study (CoSCIS)

Dietary intake among Danish children, in general, does not comply with the official recommendations. The objectives of the present study were to evaluate the 3-year effect of a multi-component school-based intervention on nutrient intake in children, and to examine whether an intervention effect depended on maternal education level. A total of 307 children (intervention group: n 184; comparison group: n 123) were included in the present study. All had information on dietary
intake pre- and post-intervention (mean age 6.8 and 9.5 years for intervention and comparison groups, respectively) assessed by a 7-d food record. Analyses were conducted based on the daily intake of macronutrients (energy percentage (E%), fatty acids (E%), added sugar (E%) and dietary fibre (g/d and g/MJ). Analyses were stratified by maternal education level into three categories. Changes in nutrient intake were observed in the intervention group, mainly among children of mothers with a short education (<10 years). Here, intake of dietary fibre increased (β = 2.1 g/d, 95% CI 0.5, 3.6, P= 0.01). Intake of protein tended to increase (β = 0.6 E%, 95% CI −0.01, 1.2, P= 0.05), while intake of fat (β = −1.7 E%, 95% CI −3.8, 0.3, P= 0.09) and SFA (β = −0.9, 95% CI −2.0, 0.2, P= 0.10) tended to decrease. Also, a significant intervention effect was observed on the intake of SFA among children of mothers with a long education (β = −0.8, 95% CI −1.5, −0.03, P= 0.04). This multi-component school-based intervention resulted in changes in the dietary intake, particularly among children of mothers with a short education. As the dietary intake of this subgroup generally differs most from the recommendations, the results of the present study are particularly encouraging.
Introduction of complementary foods to Danish infants

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Maternal obesity and offspring dietary patterns at 9 months of age

Background/Objectives: Differences in the quality of complementary feeding between infants of obese and nonobese mothers have not been examined sufficiently. The aim of this paper was to compare dietary patterns, foods, nutrients and energy intakes of 9-month-old Danish infants in a cohort comprising obese mothers (SKOT II, n=184; SKOT, Danish abbreviation of small children's diet and well-being) with a cohort consisting mainly of nonobese mothers (SKOT I, n=329).

Subjects/Methods: Dietary intake was assessed by 7-day records, and dietary patterns were identified by principal component analysis.

Results: SKOT I was characterized by a lower maternal body mass index (BMI) and a higher social class than SKOT II in relation to parental education and occupation. Infants in SKOT II had lower scores on a Health-Conscious Food pattern reflected at the food group level, for example, with lower intake of the food groups Fruit and Vegetable but higher intake of WheatBreadNoWholegrain in SKOT II compared with SKOT I. Moreover, SKOT II had shorter durations of breastfeeding, earlier introductions of complementary feeding, higher energy intake from protein but lower energy intakes from monounsaturated fatty acids and polyunsaturated fatty acids at 9 months. SKOT II had higher weight-for-age and length-for-age z-scores, but no differences in BMI z-scores, as compared with SKOT I at 9 months.

Conclusions: Infants of obese mothers from a lower social class seem to have a less healthy diet and higher weight and length z-scores at 9 months. Therefore, the promotion of healthy complementary feeding might be beneficial for the prevention of health implications, such as obesity, later in life for these infants. European Journal of Clinical Nutrition advance online publication, 3 December 2014; doi:10.1038/ejcn.2014.258.
Salt in bread - successful?) Reduction of content in danish bread

High intakes of sodium are associated with high blood pressure, elevated risk of cardiovascular diseases and early death. In the Nordic countries reduction of average sodium intake to about 2-2.7 g/d, or 5-7 g salt/d, is recommended. Main sources of salt in the diet are processed foods e.g. bread, cheese and meat products. Salt has different technological functions in processed foodstuffs, and salt is important for taste.

To make a gradual reduction of salt possible, a joined work among food/health authorities, industry and other stakeholders was initiated a few years ago. From a consumer point of view a gradual reduction would do in order to adapt to lower salt preference.

To demonstrate a possible reduction, current salt levels must be assessed, and in the present study salt content of bread, covering Danish consumption in 2014, was investigated.

When monitoring a possible trend samples studied must represent the current consumption. Thus getting an overview of market shares is important, and quite a challenge as selection of bread is changing continuously.

A strategic sampling plan was made representing all relevant types of bread, based on information from manufacturers and their organizations, from market surveillance consultants, from the internet, and from visits to supermarkets and small local bakeries.

A total of 300 bread samples were taken for analysis during autumn 2014. Samples were categorized according to: main flour ingredient (wheat or rye bread), extraction rate of grain (fine or whole meal), content of whole kernels and seeds, and manufacturer (local bakery, bake-off, industry).

All samples were analyzed for sodium and dry matter, according to well-established methods.

For monitoring salt contents a follow-up study is planned within a few years. However, 2014-contents were compared to salt contents of bread from 2009, when a study of iodine levels also included analysis of salt. The statistical analyses showed minor differences between contents and years.

The new data confirm that bread is still an important contributor to salt intake, and still holds potential for reduction and...
Climate friendly dietary guidelines

The aim of this study was to investigate how the present Danish diet could be changed in a climate friendly direction that follows the recommendations of a healthy diet. The carbon footprint (CF) of an average Danish diet was calculated and compared to CF of a recommended healthy diet.
by 1) modifying the average diet according to the Danish food based dietary guidelines, 2) and adjusting to ensure an iso-
energy content and a nutrient content according to the Nordic Nutrient Recommendations. Afterwards the healthy diet
were changed further to reduce CF.
CF from the diet was reduced by 4%, if the healthy diet was eaten instead of the average current diet. However, if the diet
was climate optimized by choosing foods with a low CF within the food groups; meat, vegetables and fruit, CF of this diet
may be reduced by 23 % compared to CF of the average diet.

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State: Published
Organisations: National Food Institute, Division of Nutrition, Aarhus University, Aalborg University
Authors: Trolle, E. (Intern), Mogensen, L. (Ekstern), Thorsen, A. V. (Intern), Jørgensen, M. S. (Ekstern)
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Comparison of two food record-based dietary assessment methods for a pan-European food consumption survey among
infants, toddlers, and children using data quality indicators
Purpose We aimed (1) to describe and evaluate the "EPIC-Soft DataEntry" application developed as a user-friendly data
entry tool for pan-European and national food consumption surveys among infants and children, and (2) to compare two
food record-based dietary assessment methods in terms of food description and quantification using data quality
indicators. EPIC-Soft DataEntry was used for both methods. Methods Two pilot studies were performed in both Belgium
and Czech Republic in a total of 376 children (3 months to 10 year olds): one using a consecutive 3-day food diary; and
the second with two non-consecutive 1-day food diaries with data entry during a completion interview. The collected
dietary data were compared between the two dietary assessment methods by country and by age groups: (i) <1 year; (ii)
1-3 years; (iii) >3-10 years. Results Overall, 70 % of the interviewers evaluated the work with EPIC-Soft DataEntry as
easy. With both dietary assessment methods, an equally high proportion of specific food names (e.g., "yoghurt,
strawberry") were reported, where only between 5 and 15 % of foods were non-specified (e.g., "yoghurt, n.s."). The two 1-
day food diaries yielded a higher proportion of foods with detailed description. For example, in the age category of 1-3
year olds in Belgium, for 7 out of 16 systematic questions on food description (e.g., "preservation method," specific
answers were significantly higher (all P < 0.03). The proportion of missing quantities of consumed foods was comparable
between the two methods. Conclusions The EPIC-Soft DataEntry application was positively evaluated by the majority of
the interviewers. Two non-consecutive 1-day food diaries with data entry during a completion interview provide a more
detailed description of consumed foods as compared with a 3-day food diary. © 2014 Springer-Verlag Berlin Heidelberg.

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Institute of Public Health and the Environment, Ghent University, Scientific Institute of Public Health, National Institute of
Public Health
Authors: Freisling, H. (Ekstern), Ocké, M. (Ekstern), Casagrande, C. (Ekstern), Nicolas, G. (Ekstern), P. Crispim, S.
(Ekstern), Niekerk, M. (Ekstern), van der Laan, J. (Ekstern), de Boer, E. (Ekstern), Vandevijvere, S. (Ekstern), de Maeyer,
M. (Ekstern), Ruprich, J. (Ekstern), Dofková, M. (Ekstern), Huybrechts, I. (Ekstern), Trolle, E. (Intern), Slimani, N.
(Ekstern)
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Feasibility of dietary assessment methods, other tools and procedures for a pan-European food consumption survey among infants, toddlers and children

Purpose To test the feasibility of tools and procedures for a pan-European food consumption survey among children 0-10 years and to recommend one of two tested dietary assessment methods. Methods Two pilot studies including 378 children were conducted in Belgium and the Czech Republic in the Pilot studies for Assessment of Nutrient intake and food Consumption among Kids in Europe. One protocol included a 3-day food diary which was checked with a parent, and data were entered afterwards using EPIC-Soft. The alternative protocol consisted of two non-consecutive 1-day food diaries followed by EPIC-Soft completion interviews. Both protocols included general and food propensity questionnaires and anthropometric measurements. The protocols were compared using evaluation questionnaires among the participating parents and study personnel. Results The parents found the questionnaires and instructions for filling in the food diaries understandable. Food description and food quantification was evaluated as problematic by 29 and 15 % of the participants for the 3-day diaries versus 15 and 12 % for the 1-day diaries. The protocol with 1-day food diaries was evaluated as less burdensome by the parents and logistically more challenging by the interviewers. Conclusions Both dietary assessment methods with related tools and administration protocols were evaluated as feasible. The administration protocol with two 1-day food diaries with completion interviews offers more advantages for the future pan-European survey in children 0-10 years. The positive evaluation of feasibility of tools and materials is an important step towards harmonised food consumption data at European level among the younger age groups. © 2014 Springer-Verlag Berlin Heidelberg.

General information
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Identifying dietary patterns and associated health-related lifestyle factors in the adult Danish population.

Background/objectives: To identify and describe dietary patterns in Danish adults and to examine which demographic and health-related lifestyle factors are associated with dietary patterns.

Subjects/methods: Data derived from the Danish national survey of diet and physical activity collected in 2003-2008 and included 1569 men and 1785 women. Diet was assessed by a 7-day pre-coded food diary. Information on age, gender, weight, height, physical activity, smoking habits, educational level and attitudes towards healthy eating habits was derived from face-to-face interviews. Principal component analysis was applied to explore dietary patterns. Associations with lifestyle factors were examined by means of multiple regression analyses.

Results: Three major dietary patterns were identified: a 'traditional' pattern correlated with intake of rye bread, white bread, fat on bread, cheese, jam, cold meat, minced meat, potatoes and gravy, and cake and biscuits; a 'health-conscious' pattern correlated with coarse bread, fruit, vegetables, low-fat dairy, nuts, water and tea; and a 'fast food' pattern correlated with pizza, hamburger/spring rolls, crisps, rice and pasta, sugar-sweetened soft drinks and sweets. The 'traditional' pattern was positively associated with male gender and age, whereas the 'health-conscious' pattern was positively associated with being female, increasing age and educational level. The 'fast food' pattern was inversely associated with age and smoking.

Conclusions: Three distinct dietary patterns were identified, and associated lifestyle and demographic factors were characterised. The findings are valuable in targeting future nutrition education and will enable more focused strategies in communicating food-based dietary guidelines.

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Organisations: National Food Institute, Division of Nutrition
Authors: Knudsen, V. K. (Intern), Matthiessen, J. (Intern), Biltoft-Jensen, A. P. (Intern), Sørensen, M. R. (Intern), Groth, M. V. (Intern), Trolle, E. (Intern), Christensen, T. (Intern), Fagt, S. (Intern)
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Web of Science (2012): Indexed yes
WebDASC: a web-based dietary assessment software for 8-11-year-old Danish children
Background: The present study describes the development and formative evaluation of the Web-based Dietary Assessment Software for Children (WebDASC). WebDASC is part of the OPUS project ('Optimal well-being, development
and health for Danish children through a healthy New Nordic Diet') and was intended to measure dietary change resulting from a school-based intervention. Methods: WebDASC was developed as a self-administered tool that could be used by 8-11-year-old children with or without parent's aid. The development of WebDASC followed a prototyping approach: focus groups, informal interviews, literature review, and usability tests preceded its release. Special consideration was given to age-appropriate design issues. Results: In WebDASC an animated armadillo guides respondents through six daily eating occasions and helps them report foods and beverages previously consumed. A database of 1300 food items is available either through category browse or free text search, aided by a spell check application. A type-in format is available for foods not otherwise found through category browse or text search. Amount consumed is estimated by selecting the closest portion size among four different digital images. WebDASC includes internal checks for frequently forgotten foods, and the following features to create motivation: a food-meter displaying cumulative weight of foods reported, a most popular food ranking, and a computer game with a high score list. Conclusions: WebDASC was developed as an intuitive, cost-effective, and engaging method to collect detailed dietary data from 8- to 11-year-old children. Preliminary testing demonstrated that it was well accepted among children.
Association between sweet drink intake and adiposity in Danish children participating in a long-term intervention study

BACKGROUND:

In some previous studies direct associations between intake of soft drinks, sugar-sweetened beverages and adiposity have been reported. The majority of these studies were, however, conducted in the USA and it is uncertain if the results are applicable to non-US countries.

OBJECTIVE:

To assess the association between sweet drink intake at age 6 and 9 years and the subsequent 3- to 7-year changes in body mass index (BMI) and sum of four skin-folds (Σ4SF).

METHODS:

Information on sweet drink intake (7 days food record) and physical activity (accelerometer) was obtained at age 6 years (n=366) and 9 years (n=269). Weight, height and Σ4SF were measured at age 6, 9 and 13 years. Additional information on socio-economic status, maternal BMI and pubertal status was obtained.

RESULTS:

No associations were observed between sweet drink intake at age 6 years and change in BMI or logΣ4SF from age 6 to 9 years or 6 to 13 years. Also, no associations were observed between change in sweet drink intake from age 6 to 9 years and subsequent change in BMI or logΣ4SF from age 9 to 13 years. A weak direct association was observed between sweet drink intake at age 9 years and change in logΣ4SF from age 9 to 13 years (per 100 g ~ 3.38 fl oz) (β: 0.014, 95% confidence interval [CI]: -0.001 to 0.029, P=0.06), while no association was seen for BMI. In supplementary analyses a similar association was observed for soft drinks (β: 0.087, 95% CI: 0.048 to 0.126, P=0.001) but only in the intervention group.

CONCLUSION:

We observed associations between intake of sweet drinks and soft drinks and change in skin-fold thickness in a group of Danish children. However, as the associations did not remain significant when multiple testing was considered or was only significant among children from the intervention group, the results do not confirm or refute the direct association reported in previous studies.
Børn og unges måltidsvaner 2005-2008

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Organisations: National Food Institute, Division of Nutrition
Authors: Christensen, L. M. (Intern), Kørup, K. (Intern), Trolle, E. (Intern), Matthiessen, J. (Intern), Fagt, S. (Intern)
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Publication: Commissioned › Report – Annual report year: 2013
Comparison of estimated energy intake in children using a Web-based Dietary Assessment Software with accelerometer-estimated energy expenditure in children

Background
The OPUS (Optimal well-being, development and health for Danish children through a healthy New Nordic Diet) project carried out a school meal study to assess the impact of a New Nordic Diet (NND). The random controlled trial involved 834 children aged 8–11 in nine local authority schools in Denmark. Dietary assessment was carried out using a program known as WebDASC (Web-based Dietary Assessment Software for Children) to collect data from the children.

Objective
To compare the energy intake (EI) of schoolchildren aged 8–11 estimated using the WebDASC system against the total energy expenditure (TEE) as derived from accelerometers worn by the children during the same period. A second objective was to evaluate the WebDASC’s usability.

Design
Eighty-one schoolchildren took part in what was the pilot study for the OPUS project, and they recorded their total diet using WebDASC and wore an accelerometer for two periods of seven consecutive days: at baseline, when they ate their usual packed lunches and at intervention when they were served the NND. EI was estimated using WebDASC, and TEE was calculated from accelerometer-derived activity energy expenditure, basal metabolic rate, and diet-induced thermogenesis. WebDASC’s usability was assessed using a questionnaire. Parents could help their children record their diet and answer the questionnaire.

Results
Evaluated against TEE as derived from the accelerometers worn at the same time, the WebDASC performed just as well as other traditional methods of collecting dietary data and proved both effective and acceptable with children aged 8–11, even with perhaps less familiar foods of the NND.

Conclusions
WebDASC is a useful method that provided a reasonably accurate measure of EI at group level when compared to TEE derived from accelerometer-determined physical activity in children. WebDASC will benefit future research in this area.

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Authors: Biltoft-Jensen, A. P. (Intern), Hjort, M. F. (Ekstern), Trolle, E. (Intern), Christensen, T. (Intern), Brockhoff, P. B. (Intern), Andersen, L. F. (Ekstern), Tetens, I. (Intern), Matthiessen, J. (Intern)
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Dietary patterns and associated health-related lifestyle factors in Denmark

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Evaluation of Web-based Dietary Assessment Software for Children: comparing reported fruit, juice and vegetable intakes with plasma carotenoid concentration and school lunch observations

Web-based Dietary Assessment Software for Children (WebDASC) was developed to estimate dietary intake in a school meal intervention study among 8- to 11-year-old Danish children. The present study validates self-reported fruit, juice and vegetable (FJV) intakes in 8- to 11-year-old children by comparing intake with plasma carotenoid concentration, and by comparing the reported FJV intake to actually eaten FJV, as observed by a photographic method. A total of eighty-one children, assisted by parents, reported their diet for seven consecutive days. For the same five schooldays as they reported their diet, the children's school lunch was photographed and weighed before and after eating. In the week after the diet reporting, fasting blood samples were taken. Self-reported intake of FJV and estimated intake of carotenoids were compared with plasma carotenoid concentration. Accuracy of self-reported food and FJV consumption at school lunch was measured in terms of matches, intrusion, omission and faults, when compared with images and weights of lunch intake. Self-reported intake of FJV was significantly correlated with the total carotenoid concentration (0·58) (P < 0·01). Fruit and juice consumption showed higher correlations than vegetables with plasma carotenoid concentration (0·38 and 0·42 v. 0·33) (P < 0·01). A total of 82 % of the participants fell into the same or adjacent quartiles when cross-classified by FJV intake and carotenoid biomarkers. WebDASC attained 82 % reporting matches overall and a higher percentage match for reporting fruits compared with beverages. The present study indicated that WebDASC can be used to rank 8- to 11-year-old Danish children according to their intake of FJV overall and at school meals.

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Authors: Hoppe, C. (Intern), Trolle, E. (Intern), Gøbel, R. (Ekstern), Kristensen, M. (Ekstern), Lind, M. (Ekstern), Christensen, T. (Ekstern), Husby, S. (Ekstern)
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Gluten intake in 6- to 36-month-old Danish infants and children
Coeliac disease (CD) affects about 1% of the general population. Information concerning gluten intake in the general population is scarce. In particular, variation in gluten intake during the complementary feeding period may be an independent risk factor in CD pathogenesis. We determined the intake of gluten from wheat, barley, rye and oats in a cross-sectional National Danish Survey of Dietary Habits among Infants and Young Children (2006–2007). The study population comprised a random sample of 1743 children aged 6–36 months, recruited from the National Danish Civil Registry. The protein contents from wheat, rye, barley and oats were found in the National Danish Food Composition Table, and multiplied with the amounts in the recipes. The amounts of gluten were calculated as the amount of cereal protein × 0·80 for wheat and oats, ×0·65 for rye and ×0·50 for barley. Dietary intake was recorded daily for seven consecutive days in pre-coded food records supplemented with open-answer possibilities. Gluten intake increased with age (P < 0·0001). Oats were introduced first, rapidly outpaced by wheat, the intake of which continued to increase with age, whereas oats started to decrease at 12 months. Boys had a higher intake of energy (P ≤ 0·0001) and all types of gluten, except for barley (P ≤ 0·87). In 8–10-month-old (P ≤ 0·0001) and 10–12-month-old (P = 0·007), but not in 6–8-month-old infants (P = 0·331), non-breast-fed infants had higher total gluten intake than partially breast-fed infants. In conclusion, this study presents representative population-based data on gluten intake in Danish infants and young children.
Health effects associated with foods characteristic of the Nordic diet: a systematic literature review

Background: In preparing the fifth edition of the Nordic Nutrition Recommendations (NNR), the scientific basis of specific food-based dietary guidelines (FBDG) was evaluated. Objective: A systematic review (SR) was conducted to update the NNR evidence based on the association between the consumption of potatoes, berries, whole grains, milk and milk products, and red and processed meat, and the risk of major diet-related chronic diseases. Design: The SR was based on predefined research questions and eligibility criteria for independent duplicate study selection, data extraction, and assessment of methodological quality and applicability. We considered scientific data from prospective observational studies and intervention studies, published since year 2000, targeting the general adult population. Studies of meat and iron status included children, adolescents, and women of childbearing age. Results: Based on 7,282 abstracts, 57 studies met the quality criteria and were evidence graded. The data were too limited to draw any conclusions regarding: red and processed meat intake in relation to cardiovascular disease (CVD) and iron status; potatoes and berries regarding any study outcomes; and dairy consumption in relation to risk of breast cancer and CVD. However, dairy consumption seemed unlikely to increase CVD risk (moderate-grade evidence). There was probable evidence (moderate-grade) for whole grains protecting against type 2 diabetes and CVD, and suggestive evidence (low-grade) for colorectal cancer and for dairy consumption being associated with decreased risk of type 2 diabetes and increased risk of prostate cancer. The WCRF/AICR concludes that red and processed meat is a convincing cause of colorectal cancer. Conclusions: Probable (moderate) evidence was only observed for whole grains protecting against type 2 diabetes and CVD. We identified a clear need for high-quality nutritional epidemiological and intervention studies and for studies of foods of the Nordic diet.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, Karolinska Institutet, University of Oslo, University of Iceland, University of Helsinki, Lund University
Authors: Åkesson, A. (Ekstern), Andersen, L. F. (Ekstern), Kristjansdottir, A. G. (Ekstern), Roos, E. (Ekstern), Trolle, E. (Intern), Voutilainen, E. (Ekstern), Wirfält, E. (Ekstern)
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BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.24 SJR 0.875 SNIP 0.763
Web of Science (2016): Indexed yes
Iron supplementation is positively associated with increased serum ferritin levels in 9-month-old Danish infants

Fe deficiency is still common in infancy, even in affluent societies, and has prompted Fe fortification of food products and use of Fe supplements in many populations. In the present study, we tested the hypothesis that Fe status among 9-month-old infants following the Danish Fe supplementation recommendation (>400 ml Fe-fortified formula or 8 mg Fe/d) is associated with more favourable levels of Fe status indicators compared to those not following the recommendation. A random sample of 9-month-old infants living in Copenhagen was established and 312 healthy term infants were examined at 9.1 ± 0.3 months of age. Blood samples were available from 278 infants. Overall, twenty infants (7.8%) had Fe deficiency (serum ferritin <12 μg/l) and <1% had Fe deficiency anaemia (serum ferritin <12 μg/l and Hb <100 g/l). Serum ferritin was positively associated with birth weight (P <0.001), intake of fortified formula and follow-on formula (P = 0.001), and female sex (P <0.001). Cow's milk intake and length of exclusive breast-feeding were negatively associated with Hb levels (P = 0.013 and P <0.001). Serum ferritin levels were significantly higher (P <0.0001) and transferrin receptor (TfR) was significantly lower (P = 0.003) among infants (n 188) meeting the Fe supplementation recommendation compared to those (n 67) not meeting the recommendation. No significant difference between these two groups was found for Hb. In conclusion, this study confirmed that Fe status of infants following the Danish Fe supplementation recommendation was significantly associated with increased serum ferritin and decreased levels of TfR indicating more favourable Fe status, compared to infants not following the recommendation.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, University of Copenhagen
Nutritional evaluation of lowering consumption of meat and meat products in the Nordic context

The World Cancer Research Fund (WCRF) recommended in 2007 that consumer intake of red meat is minimized and processed meat eliminated. The recommendation was based on a systematic review of the available literature on the association between meat consumption and cancer. The recommendation to individuals was to ingest less than 500 grams of red meat per weeks, and very little - if anything - processed meats. In a new study, National Food Institute has assessed the nutritional consequences from living the recommendations of the WCRF, in Norway, Sweden, Finland and Denmark. The current consumption of meat in the Nordic countries is not far from the level WCRF has proposed on an individual level. The study also shows that it will have no significant nutritional consequences to reduce the intake of meat to the recommended, neither when it comes to red meat nor processed meat.
Seasonal changes in vitamin D status among Danish adolescent girls and elderly women: the influence of sun exposure and vitamin D intake.

Background/objectives: To determine seasonal variation in vitamin D status in healthy Caucasian adolescent girls and elderly community-dwelling women living in Denmark, and to quantify the impact of sun exposure and intake on the seasonal changes in vitamin D status. Subjects/methods: A 1-year longitudinal observational study of 54 girls (11-13 years) and 52 women (70-75 years). The participants were examined three times (winter-summer-winter). Serum 25-hydroxyvitamin D (S-25OHD) concentration and vitamin D intake were measured at each visit. Sun exposure was measured during summer.

Results: S-25OHD concentrations (winter, summer, winter) were median (25, 75 percentiles) 23.4 (16.5, 36.4), 60.3 (42.7, 67.7), 29.5 (22.2, 40.4) and 47.2 (27.3, 61.1), 67.3 (35.1, 79.2), 50.5 (32.7, 65.5) nmol/l for girls and women, respectively. The usual sun habits were determinant (P=0.002) for change in vitamin D status from winter to summer. Vitamin D intake from supplements (P...
Validation of a food quantification picture book targeting children of 0–10 years of age for pan-European and national dietary surveys

The aim of the present study was to validate thirty-eight picture series of six pictures each developed within the PANCAKE (Pilot study for the Assessment of Nutrient intake and food Consumption Among Kids in Europe) project for portion size estimation of foods consumed by infants, toddlers and children for future pan-European and national dietary surveys. Identical validation sessions were conducted in three European countries. In each country, forty-five foods were evaluated; thirty-eight foods were the same as the depicted foods, and seven foods were different, but meant to be quantified by the use of one of the thirty-eight picture series. Each single picture within a picture series was evaluated six times by means of predefined portions. Therefore, thirty-six pre-weighed portions of each food were evaluated by convenience samples of parents having children aged from 3 months to 10 years. The percentages of participants choosing the correct picture, the picture adjacent to the correct picture or a distant picture were calculated, and the performance of individual pictures within the series was assessed. For twenty foods, the picture series performed acceptably (mean difference between the estimated portion number and the served portion number less than $0.4$ (sd $<1.1$)). In addition, twelve foods were rated acceptable after adjustment for density differences. Some other series became acceptable after analyses at the country level. In conclusion, all picture series were acceptable for inclusion in the PANCAKE picture book. However, the picture series of baby food, salads and cakes either can only be used for foods that are very similar to those depicted or need to be substituted by another quantification tool.

General information

State: Published
WebDASC: a web-based dietary assessment software for 8-11-year-old Danish children

Background: The present study describes the development and formative evaluation of the Web-based Dietary Assessment Software for Children (WebDASC). WebDASC is part of the OPUS project ('Optimal well-being, development and health for Danish children through a healthy New Nordic Diet') and was intended to measure dietary change resulting from a school-based intervention. Methods: WebDASC was developed as a self-administered tool that could be used by 8-11-year-old children with or without parent's aid. The development of WebDASC followed a prototyping approach: focus groups, informal interviews, literature review, and usability tests preceded its release. Special consideration was given to age-appropriate design issues. Results: In WebDASC an animated armadillo guides respondents through six daily eating occasions and helps them report foods and beverages previously consumed. A database of 1300 food items is available either through category browse or free text search, aided by a spell check application. A type-in format is available for foods not otherwise found through category browse or text search. Amount consumed is estimated by selecting the closest portion size among four different digital images. WebDASC includes internal checks for frequently forgotten foods, and the following features to create motivation: a food-meter displaying cumulative weight of foods reported, a most popular food ranking, and a computer game with a high score list. Conclusions: WebDASC was developed as an intuitive, cost-effective, and engaging method to collect detailed dietary data from 8- to 11-year-old children. Preliminary testing demonstrated that it was well accepted among children.

General information
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closest portion size among four different digital images. WebDASC includes internal checks for frequently forgotten foods, and the following features to create motivation: a food-meter displaying cumulative weight of foods reported, a most popular food ranking, and a computer game with a high score list. Conclusions: WebDASC was developed as an intuitive, cost-effective, and engaging method to collect detailed dietary data from 8- to 11-year-old children. Preliminary testing demonstrated that it was well accepted among children.

General information
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Comparison of estimated energy intake from 224-hour recalls and a seven-day food record with objective measurements of energy expenditure in children
Objective: The objective of the present study was to evaluate energy intake (EI) estimated from two nonconsecutive 24-hour recalls (24-HDRs) and a pre-coded seven-day food record (7-dFR) against objective measurements of energy expenditure (EE) in children.
Design: A total of 67 78 year-olds and 64 1213 year-olds completed the 224-HDRs, the 7-dFR, and wore ActiReg † (PreMed AS, Oslo, Norway), a combined position and motion recording instrument, during the same seven days as the 7-dFR was filled in.
Results: In the 78 year-olds, EI from the 224-HDRs (EI224-HDR) was overestimated with 3% compared to EE (not significantly different), while EI from the 7-dFR (EI7-dFR) was underestimated with 7% compared to EE (P0.001). In the 1213 year-olds, the corresponding figures was underestimation by 10% with the 224-HDRs (PB0.001) and by 20% with the 7-dFR (PB0.001). For both age groups combined, the 95% limits of agreement were 438 and 3.52 MJ/d for the 224-HDRs, and 5.90 and 2.94 MJ/d for the 7-dFR. Pearson correlation coefficients between EI and EE were 0.51 for EI224-HDR and 0.29 for EI7-dFR, respectively. The proportion classified in the same or adjacent quartiles was 76% for EI224-HDR and 73% for EI7-dFR in the 78 year-olds, and 83% for EI224-HDR and 70% for EI7-dFR in the 1213 year-olds.
Conclusion: Misreporting of EI seemed modest with both the 224-HDRs and the 7-dFR in the 78 year-olds when compared to EE measured with ActiReg †. Under-reporting appeared to be more evident in the 1213 year-olds, especially with the 7-dFR. Compared to measurements of EE, the 224-HDRs seemed to perform slightly better than the 7-dFR in terms of ranking of individuals according to EI.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, Department of Informatics and Mathematical Modeling, Mathematical Statistics, University of Oslo
Authors: Rothausen, B. W. (Intern), Matthiessen, J. (Intern), Groth, M. V. (Intern), Brockhoff, P. B. (Intern), F. Andersen, L. (Ekstern), Trolle, E. (Intern)
Pages: 1-10
Publication date: 15 Feb 2012
Main Research Area: Technical/natural sciences

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Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.24 SJR 0.875 SNIP 0.763
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Dietary habits of partly breast-fed and completely weaned infants at 9 months of age

Objective: To test whether there are differences in diet diversity between children still being partly breast-fed at 9 months and those completely weaned at the same age.

Design: Cross-sectional study.

Setting: Cross-sectional study (SKOT cohort) in the area of Copenhagen, Denmark.

Subjects: Healthy term infants (n 312) at 9 months of age (mean 9?1 (SD 0?3) months).

Results: The infants partly breast-fed (n 168) at 9 months had significantly lower body weight (P,0?0001), were significantly shorter (P50?0022) and were introduced to complementary foods significantly later (P,0?0001) than completely weaned infants (n 141) of similar age. Furthermore, they had lower intake of energy, both in absolute amount (P,0?0001) and per kilogram of body weight (P50?049). Significantly lower intakes of most energy-yielding nutrients, in absolute amounts and as energy percentages, were seen for the partly breast-fed compared with the completely weaned infants. These differences appear to be caused primarily by differences in the type and amount of milk consumed, as the energy derived from sources other than milk was similar except for fatty spread and vegetables as a side dish. Only small differences were found for absolute intakes of foods between feeding groups, although fatty spread had significantly higher intake rates and consumption (P50?031) among partly breast-fed compared with completely weaned infants.

Conclusions: At 9 months the infants partly breast-fed did not eat a less diversified diet compared with those completely weaned at the same age. Despite later introduction to complementary foods compared with the completely weaned, their
intake of foods was similar and no delay in their progression towards the family foods was noted.

**General information**
**State:** Published
**Organisations:** Division of Nutrition, National Food Institute, University of Copenhagen
**Authors:** Gondolf, U. H. (Intern), Tetens, I. (Intern), Fleischer Michaelisen, K. (Ekstern), Trolle, E. (Intern)
**Pages:** 578-586
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**Publication information**
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**Ratings:**
- BFI (2018): BFI-level 1
- Web of Science (2018): Indexed yes
- BFI (2017): BFI-level 1
- Web of Science (2017): Indexed Yes
- BFI (2016): BFI-level 1
- Scopus rating (2016): CiteScore 2.04 SJR 1.03 SNIP 0.876
- Web of Science (2016): Indexed yes
- BFI (2015): BFI-level 1
- Scopus rating (2015): SJR 0.973 SNIP 0.834 CiteScore 1.82
- Web of Science (2015): Indexed yes
- BFI (2014): BFI-level 1
- Scopus rating (2014): SJR 1.087 SNIP 1.116 CiteScore 2.15
- BFI (2013): BFI-level 1
- Scopus rating (2013): SJR 1.104 SNIP 1.196 CiteScore 2.22
- ISI indexed (2013): ISI indexed yes
- Web of Science (2013): Indexed yes
- BFI (2012): BFI-level 1
- Scopus rating (2012): SJR 1.234 SNIP 1.191 CiteScore 2.22
- ISI indexed (2012): ISI indexed yes
- Web of Science (2012): Indexed yes
- BFI (2011): BFI-level 1
- Scopus rating (2011): SJR 1.088 SNIP 1.105 CiteScore 1.86
- ISI indexed (2011): ISI indexed yes
- Web of Science (2011): Indexed yes
- BFI (2010): BFI-level 1
- Scopus rating (2010): SJR 1.077 SNIP 0.991
- Web of Science (2010): Indexed yes
- BFI (2009): BFI-level 1
- Scopus rating (2009): SJR 1.322 SNIP 1.283
- Web of Science (2009): Indexed yes
- BFI (2008): BFI-level 2
- Scopus rating (2008): SJR 1.111 SNIP 1.052
- Scopus rating (2007): SJR 1.071 SNIP 1.345
- Web of Science (2007): Indexed yes
- Scopus rating (2006): SJR 0.977 SNIP 1.063
- Web of Science (2006): Indexed yes
- Scopus rating (2005): SJR 1.287 SNIP 1.291
- Scopus rating (2004): SJR 0.878 SNIP 1.069
- Web of Science (2004): Indexed yes
Evaluation of dietary intake in Danish adults by means of an index based on food-based dietary guidelines.
The diet quality index is a useful tool in assessing food and nutrient intake in individuals with high vs. low degree of compliance towards the dietary guidelines, and provides a valuable tool in future studies investigating variations in dietary intakes with respect to lifestyle, demographic and regional differences in Denmark.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Authors: Knudsen, V. K. (Intern), Fagt, S. (Intern), Trolle, E. (Intern), Matthiessen, J. (Intern), Groth, M. V. (Intern), Biltoft-Jensen, A. (Intern), Sørensen, M. R. (Intern), Pedersen, A. N. (Intern)
Number of pages: 8
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Scopus rating (2016): CiteScore 2.24 SJR 0.875 SNIP 0.763
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.999 SNIP 0.843 CiteScore 2.19
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.01 SNIP 0.965 CiteScore 2.37
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.708 SNIP 0.792 CiteScore 1.82
ISI indexed (2013): ISI indexed no
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.704 SNIP 0.606 CiteScore 1.45
ISI indexed (2012): ISI indexed no
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.833 SNIP 1.015 CiteScore 0
ISI indexed (2011): ISI indexed no
Evaluation of the diet in Danish adults using a diet quality index

General information
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Organisations: National Food Institute, Division of Nutrition
Authors: Knudsen, V. K. (Intern), Fagt, S. (Intern), Trolle, E. (Intern), Matthiessen, J. (Intern), Groth, M. V. (Intern), Billoft-Jensen, A. P. (Intern), Sørensen, M. R. (Intern), Pedersen, A. N. (Intern)
Number of pages: 1
Publication date: 2012
Event: Poster session presented at International Conference on Diet and Activity Methods, Rome, Italy.
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Første fælles nordiske monitorering af kost, fysisk aktivitet og overvægt

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Organisations: National Food Institute, Division of Nutrition
Authors: Fagt, S. (Intern), Rasmussen, L. B. (Intern), Trolle, E. (Intern)
Pages: 25-26
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Main Research Area: Technical/natural sciences

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Issue number: 3
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Forfattere: Sisse Fagt, Lone Banke Rasmussen, Ellen Trolle
Tidskrift: Nordisk nutrition 3, 2012, side 25-26
Første fælles nordiske monitorering af kost, fysisk aktivitet og overvægt

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- Authors: Fagt, S. (Intern), Rasmussen, L. B. (Intern), Trolle, E. (Intern)
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- Publication date: 2012
- Main Research Area: Technical/natural sciences

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Tidskrift: Nordisk nutrition 3, 2012, side 25-26

OBS: Den uploadede fil er ikke endelig udgave, men jeg kan ikke få lukket sagen uden at upload et eller andet......
Motiver til og barrierer for at arbejde med sundhedsfremmende initiativer på erhvervsskoler: en kvalitativ undersøgelse med skoleledere, lærere og elever med udgangspunkt i elevfrafald

General information
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Organisations: National Food Institute, Division of Nutrition
Authors: Iversen, J. D. (Intern), Hoppe, C. (Intern), Trolle, E. (Intern)
Number of pages: 33
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Nordic monitoring of diet, physical activity and overweight: First collection of data in all Nordic Countries 2011

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Number of pages: 167
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Skim Milk, Whey, and Casein Increase Body Weight and Whey and Casein Increase the Plasma C-Peptide Concentration in Overweight Adolescents 12

In adults, dietary protein seems to induce weight loss and dairy proteins may be insulinotropic. However, the effect of milk proteins in adolescents is unclear. The objective was to test whether milk and milk proteins reduce body weight, waist circumference, homeostatic model assessment, plasma insulin, and insulin secretion estimated as the plasma C-peptide concentration in overweight adolescents. Overweight adolescents (n = 203) aged 12–15 y with a BMI of 25.4 ± 2.3 kg/m2 (mean ± SD) were randomized to 1 L/d of skim milk, whey, casein, or water for 12 wk. All milk drinks contained 35 g protein/L. Before randomization, a subgroup of adolescents (n = 32) was studied for 12 wk before the intervention began as a pretest control group. The effects of the milk-based test drinks were compared with baseline (wk 0), the water group,
and the pretest control group. Diet and physical activity were registered. Outcomes were BMI-for-age Z-scores (BAZs), waist circumference, plasma insulin, homeostatic model assessment, and plasma C-peptide. We found no change in BAZ in the pretest control and water groups, whereas it was greater at 12 wk in the skim milk, whey, and casein groups compared with baseline and with the water and pretest control groups. The plasma C-peptide concentration increased from baseline to wk 12 in the whey and casein groups and increments were greater than in the pretest control (P <0.02). There were no significant changes in plasma C-peptide in the skim milk or water group. These data suggest that high intakes of skim milk, whey, and casein increase BAZs in overweight adolescents and that whey and casein increase insulin secretion. Whether the effect on body weight is primary or secondary to the increased insulin secretion remains to be elucidated.

General information
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Organisations: National Food Institute, Division of Nutrition, University of Copenhagen
Authors: Arnberg, K. (Ekstern), Mølgaard, C. (Ekstern), Michaelsen, K. F. (Ekstern), Jensen, S. M. (Ekstern), Trolle, E. (Intern), Lamkjær, A. (Ekstern)
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Web of Science (2018): Indexed yes
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Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 3.93 SJR 1.956 SNIP 1.335
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.271 SNIP 1.505 CiteScore 4.08
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.089 SNIP 1.596 CiteScore 4.13
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.172 SNIP 1.614 CiteScore 4.6
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 1.919 SNIP 1.671 CiteScore 4.45
ISI indexed (2012): ISI indexed yes
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BFI (2011): BFI-level 2
Scopus rating (2011): SJR 1.838 SNIP 1.603 CiteScore 4.32
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 1.7 SNIP 1.575
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.559 SNIP 1.545
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 1.575 SNIP 1.42
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.579 SNIP 1.484
Validation of a pre-coded food record for infants and young children.

Background/Objectives: To assess the validity of a 7-day pre-coded food record (PFR) method in 9-month-old infants against metabolizable energy intake (ME(DLW)) measured by doubly labeled water (DLW); additionally to compare PFR with a 7-day weighed food record (WFR) in 9-month-old infants and 36-month-old children.

Subjects/Methods: The study population consisted of 36 infants (age: 9.03±0.2 months) and 36 young children (age: 36.1±0.3 months) enrolled in a cross-over design of 7 consecutive days PFR vs 7 consecutive days WFR. Children were randomly assigned to one method during week 1, crossing over to the alternative method in week 2. Total energy expenditure (TEE) and ME(DLW) were obtained in the 9-month-old infants using the DLW technique for 7 days while recording with PFR.

Results: For the 9-month-old group, PFR showed a mean bias of +726kJ/day, equivalent to 24%, (P...
Web-based Dietary Assessment for 8-11 Year Old School-children

Background and aim

The potential health effects of a New Nordic Diet (NND) are to be tested in the Danish OPUS (Optimal well-being, development and health for Danish children through a healthy New Nordic Diet) School Meal study among 8-11-year-old school-children. Valid and reliable dietary assessment methods are essential for identifying how eating habits may change in response to the intervention and for identifying the impact of the children's dietary habits on their health and weight status. Several challenges are connected to collecting dietary data from children including their cognitive ability and social desirability which in addition is influenced by the OPUS study. Furthermore, they are untrained in the task and they may not be involved in food shopping or preparation and therefore have little insight into the foods they eat.

The overall aim of the present project was to deliver a validated and suitable dietary assessment tool that could be used by 8-11-year-old Danish school children to assess dietary intake in the OPUS School Meal Study. The specific objectives were to develop a dietary assessment tool suitable for 8-11-year-old children feasible to be used in the OPUS School Meal...
Study (Paper 1), to validate the developed dietary assessment tool by a combination of validation methods in order to obtain information about the reporting accuracy including the acceptability, under-reporting and over-reporting, and repeatability of WebDASC (Paper 2), and the overall- and lunch specific reporting accuracy of fruit, juice and vegetables (Paper 3).

Materials and methods
The development of a Web-based Dietary Assessment Software for 8-11-year-old Children (WebDASC) followed a prototyping approach: Considerations about factors connected to the OPUS study aim of relevance to the dietary assessment, data level, available resources, and input from professionals, focus groups, literature review, and usability tests preceded its release. Special consideration was given to age-appropriate design issues.

In the validation study, which were conducted as a part of the OPUS School Meal pilot study, 81 school children 8-11-year-old, assisted by parents, recorded their diet in the WebDASC and wore an accelerometer on the same 7 consecutive days twice: at baseline with the habitual diet, and at intervention with the NND. On the same 5 school days as they reported their diet in WebDASC the children’s school lunch was photographed and weighed before and after lunch. During the week after the baseline food- and activity recording fasting blood samples were taken. The acceptability of WebDASC was assessed with a questionnaire. Energy intake (EI) estimated with WebDASC was evaluated against accelerometer-estimated energy expenditure using Bland-Altman plot, correlation and Kappa statistics. The repeatability of EI was assessed using Intraclass correlation coefficient. Furthermore, the accuracy of self-reported fruit, juice and vegetable (FJV) intake was evaluated by comparing intake to plasma carotenoids concentration using correlations and Kappa statistics. Intervention effect, weekday and meal effect in FJV intake, and effects of background factors were assessed using Linear Mixed Models. Finally, the accuracy of reporting FJV intake at school lunch were measured by scoring the reported intake in WebDASC against FJV actually eaten observed by the digital photos as either matches, intrusion, omission and faults.

Main findings
WebDASC was developed as an intuitive, cost-effective, and engaging method to collect detailed dietary data from 8-11-year-old children. Results from the acceptability questionnaire demonstrated that it was well accepted among children and adults. Results from the validation study showed that on group level reported EI was in agreement with total energy expenditure (TEE). However, 20% was classified as under-reporters and 20% as over-reporters. Mis-reporting was associated to weight status and a higher body mass index (BMI) characterized under-reporters, and a lower BMI characterized over-reporters compared to acceptable-reporters. The repeatability of EI was fair. Reporting that illness affected eating influenced reported EI and FJV intake.

The WebDASC estimated intake of FJV was significantly correlated with carotenoid plasma concentration, and Spearman and Partial correlation coefficients adjusted for gender, BMI, and TEE showed correlations of 0.58 and 0.49 respectively (p<0.01). Fruits and juice showed higher correlations than vegetables with plasma carotenoid concentration. The results from the photographic observations of school lunch demonstrated that WebDASC attained 82% reporting matches overall and higher percent match for reporting fruits compared to beverages. Intrusions (reporting of FJV not eaten or reporting too large portion size) were the most common reporting mistake (90%). Among intrusion it was more common to report fruit and vegetables not eaten (65%) than reporting a portion size image illustrating a larger portion than the eaten portion size (35%).

Conclusions and implications
The thesis demonstrated that it is possible to develop a child appealing web-based dietary assessment tool that can be used at home on the family’s home computer. The developed WebDASC was acceptable to use for both 8-11-year-old children and their parents, and feasible to use in the OPUS School Meal pilot study.

The WebDASC provides good estimates of average energy intake compared to the estimated total energy expenditure. Moreover a moderate repeatability of EI was observed. The ability of the WebDASC to rank participants according to energy intake was fair. The validation study demonstrated that under-reporting and over-reporting was associated to the weight status and BMI of the children. Possible causes may be the weight and health focus of the study, social desirability and the diet reporting itself.

When using plasma carotenoid concentrations as a reference, the WebDASC’s ability to rank participants according to FJV intake was good and the WebDASC obtained a high percent matches for FJV intake and overall intake at school lunch.

In conclusion the WebDASC is both acceptable and feasible to use to collect dietary data from 8-11-year-old children in intervention studies. This project demonstrated that, in the study population, data could be used to estimate energy intake on group level and to rank individuals according to EI, and to rank FJV intake both overall and on school meal level, and thereby contribute to the understanding about associations of fruit and vegetable intake, which is an important nutritional indicator for healthy eating habits, and the development of lifestyle diseases.

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A randomized controlled intervention with fish oil versus sunflower oil from 9 to 18 months of age: exploring changes in growth and skinfold thicknesses

n-3 long-chain polyunsaturated fatty acids (n-3 LCPUFA), from fish oil (FO), in rodents have been shown to reduce adipogenesis. Evidence of an effect on adipose tissue mass in humans is limited, and no studies have specifically aimed to elucidate this in infancy. To explore whether n-3 LCPUFA intake affects adipose tissue growth, we randomly allocated 154 healthy infants to daily supplementation with FO or sunflower oil (SO) from 9 to 18 mo of age and measured z-score changes in various anthropometric assessments of body size and skinfold thicknesses and plasma adipokine concentrations. Among the 133 completing infants, erythrocyte n-3 PUFA increased more in those receiving FO than in infants receiving SO [12.2 ± 0.7 (mean ± SE) versus 2.0 ± 0.4 fatty acid percentage (FA%), p <0.001] with a concomitant larger decrease in n-6 PUFA (-8.9 ± 0.7 versus -0.9 ± 0.6 FA%, p <0.001). We found no association between FO consumption relative to SO consumption and any of the anthropometric measures related to the size of the fat mass, but infants in the FO group had a lower skinfold ratio (triceps/subscapular) at 18 mo than those in SO group (p = 0.02). Our findings do not support the hypothesis that dietary n-3 LCPUFA is important for infant fat mass, but future studies testing this specifically are warranted. ABBREVIATIONS::
Børns sukkervaner: Undersøgelse af sukkerkulturen blandt børnefamilier med 4-12-årige børn

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Evaluation of 2 × 24-h dietary recalls combined with a food-recording booklet, against a 7-day food-record method among schoolchildren

Background/Objectives: The aim of this study was to evaluate the estimated energy, nutrient and food intake from the suggested trans-European methodology for undertaking representative dietary surveys among schoolchildren: 2 Å 24-h dietary recalls (24-HDRs) combined with a food-recording booklet (FRB), using EPIC-Soft pc-program (the software developed to conduct 24-HDRs in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study), against a 7-day food-record (7-dFR) method among Danish schoolchildren. Subjects/Methods: A total of 74 children aged 7-8 years and 70 children aged 12-13 years were recruited through the Civil Registration System in Denmark. Each child and one of their parents completed two face-to-face 24-HDRs, combined with optional use of a FRB, followed by a 7-day-estimated FR. Results: Energy intake was significantly higher with the 24-HDR method than with the 7-dFR method for both age groups. Mean energy intake was 6% higher for the youngest (P=0.02) and 11% for the oldest children (P=0.01); underreporting of energy occurs among the oldest children, being less present with the 24-HDR method. The intakes of carbohydrate and dietary fiber (absolute and related to energy) were significantly higher with the 24-HDR than with the 7-dFR for both age groups (P

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Feasibility of 2 x 24-h dietary recalls combined with a food-recording booklet, using EPIC-Soft, among schoolchildren

Background/Objectives: The aim of this study was to evaluate the feasibility of the suggested trans-European methodology for undertaking representative dietary surveys among schoolchildren: 2 x 24-h dietary recalls (24-HDRs) combined with a food-recording booklet, using EPIC-Soft (the software developed to conduct 24-HDRs in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study) pc-program. Subjects/Methods: A total of 75 children aged 7-8 years and 70 children aged 12-13 years old were recruited through the Civil Registration System in Denmark, and 57 children aged 7-8 years and 47 children aged 12-13 years were recruited through schools in Spain. Each child with one parent completed two face-to-face 24-HDRs, combined with optional use of a food-recording booklet (FRB) to be filled
in by the child, a parent or other proxy persons for preparing the recalls. Feasibility was evaluated by questionnaires completed by parents, children and interviewers, and by selected data from the 24-HDRs. Results: The face-to-face interviews with the child and a parent together are confirmed as feasible. The children participated actively in the interviews, the oldest children being most active. The children, parents and interviewers agreed that children needed help from the parents, and that parents were of help to the child. In both countries, other proxy persons, such as teachers or the school cafeteria staff, were involved before the interview, and the majority of the parents and children reported that the FRB had been a help for the child during the interview. Further results point at specific needed improvements of the tools. Conclusions: The evaluated method is shown feasible in two culturally diverse European populations. However, the feasibility study also points to specific improvements of tools and data collection protocol that are strongly recommended before implementation of the method in each country of a pan-European dietary survey. European Journal of Clinical Nutrition (2011) 65, S65-S76; doi:10.1038/ejcn.2011.89

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Feasibility of repeated 24-h dietary recalls combined with a food-recording booklet, using EPIC-Soft, among preschoolers

Background/Objectives: This study evaluates the feasibility among preschoolers of the 2 À 24-h dietary recalls (24-HDRs) method combined with a food-recording booklet (FRB), using EPIC-Soft pc-program for the 24-HDR (the software developed to conduct 24-HDRs in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study).

Subjects/Methods: A total of 20 and 25 (4- to 5-year-old) children were recruited, as a convenience sample, through workplaces or day or healthcare in Denmark and Spain, respectively. One parent (or both parents together) completed two face-to-face 24-HDR, combined with an optional use of a FRB. Feasibility was evaluated by evaluation questionnaires completed by parents and interviewers.

Results: The face-to-face interviews were primarily conducted with the mothers. The FRB was used by 90% of the participants, and proxy persons, other than the parent, were also involved; involvement of proxy persons seems necessary in a majority of the recalls in both the countries.

Conclusions: The results suggest that 2 À 24-HDR with one parent combined with a FRB is feasible for registering preschoolers' diet. An FRB and/or information from proxy persons, other than the parent, is needed for a majority of the parents. In future studies, it may be beneficial to develop the FRB more like a structured food record (FR), which might, in principle, change the method to a one-day FR method from more than a 24-HDR method. It is recommended then to further investigate the use of EPIC-Soft as a data-entry tool.
Improving the diet of employees at blue-collar worksites: results from the "Food at work" intervention study.

Objective. To examine the impact of a 6-month participatory and empowerment-based intervention study on employees' dietary habits and on changes in the canteen nutrition environment. Design. Worksites were stratified by company type and by the presence or absence of an in-house canteen, and randomly allocated to either an intervention group (five worksites) or a minimum intervention control group (three worksites). The study was carried out in partnership with a trade union and guided by an ecological framework targeting both individual and environment levels. Outcome measures included: (i) changes in employees' dietary habits derived from 4 d pre-coded food diaries of a group of employees at the worksites (paired-data structure); and (ii) the canteen nutrition environment as identified by aggregating chemical nutritional analysis of individual canteen lunches (different participants at baseline and at endpoint), Setting. Eight blue-collar worksites (five of these with canteens). Subject. Employees. Results. In the intervention group (n 102), several significant positive nutritional effects were observed among employees, including a median daily decrease in intake of fat (—2.2% E, P = 0.002) and cake and sweets (—18 g/10 MJ, P = 0.002) and a median increase in intake of dietary fibre (3 g/10 MJ, P <0.001) and fruit (55 g/d, P = 0.007 and 74 g/10 MJ, P = 0.009). With regard to the canteen nutrition environment, a significant reduction in the percentage of energy obtained from fat was found in the intervention group (median difference 11% E, P <0.001, n 144). Conclusions. The present study shows that moderate positive changes in dietary patterns can be achieved among employees in blue-collar worksites. Copyright © The Authors 2010.
Nordic monitoring on diet, physical activity and overweight: Validation of indicators

In 2007, a Nordic working group was established with the aim to describe a future Nordic monitoring system on diet, physical activity and overweight. The monitoring system should be simple and at relatively low cost. Therefore it has been decided to conduct the monitoring as a telephone interview. In 2009, the indicator questions were validated against an objective method (physical activity) or existing survey methods (diet) and the present report mainly describes the validation studies. On basis of the validation studies the working group suggests that the indicators are used in a future monitoring system. In 2011 and 2013 the first collection of data in all Nordic countries will take place.

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Rationale and methods of the European Food Consumption Validation (EFCOVAL) Project

Background/Objectives: The overall objective of the European Food Consumption Validation (EFCOVAL) Project was to further develop and validate a trans-European food consumption method to be used for the evaluation of the intake of foods, nutrients and potentially hazardous chemicals within the European population. Subjects/Methods: The EFCOVAL Project was carried out by 13 institutes from 11 European countries. The main activities were centered on the three main objectives of the project organized in different sub-projects. Results: In EFCOVAL, EPIC-Soft (the software developed to conduct 24-h dietary recalls (24-HDRs) in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study) was reprogrammed and adapted according to prioritized specifications, resulting in a software program working under the Windows operating system. In parallel of the EPIC-Soft development, the repeated 24-HDR method using EPIC-Soft and a food propensity questionnaire was evaluated against biomarkers in 24-h urine collections and in blood samples among adults from Belgium, the Czech Republic, (the South of) France, the Netherlands and Norway. As a result from an expert workshop on a proposed dietary assessment method for children (4-12 years), the suggested method was tested in a feasibility study in Denmark and Spain among children of 4-5, 7-8 and 12-13 years. To ensure that collected data had sufficient detail in food description for the assessment of additives and contaminants to foods the EPIC-Soft databases were adapted. Finally, the EFCOVAL Consortium developed a statistical tool (Multiple Source Method) for estimating the usual intake and distribution, which has been tested using real food consumption data and compared with three other statistical methods through a simulation study. In addition, a methodology was developed to quantify uncertainty due to portion-size estimation in usual intake distributions. Conclusion: The findings of EFCOVAL provide sufficient evidence to conclude that the repeated 24-HDR using EPIC-Soft for standardization in combination with a food propensity questionnaire and modeling of usual intake is a suitable method for pan-European surveillance of nutritional adequacy and food safety among healthy adults and maybe in children aged 7 years and older. European Journal of Clinical Nutrition (2011) 65, S1-S4; doi:10.1038/ejcn.2011.82
Recommendations for a trans-European dietary assessment method in children between 4 and 14 years

Background/Objectives: The main objective of European Food Consumption Validation (EFCOVAL)-child Project is to define and evaluate a trans-European methodology for undertaking national representative dietary surveys among children in the age group of 4-14 years. In the process of identifying the best dietary assessment methodologies, experts were brought together at a workshop. The paper presents the discussion of the best available method and the final recommendations for a trans-European dietary assessment method among 4- to 14-year-old children. Subjects/Methods: The starting point was to investigate whether the method (two non-consecutive 24-h dietary recalls (24-HDRs)) suggested for the adults in European Food Consumption Survey Method (EFCOSUM) would be usable for children in the age group between 4 and 14 years. However, all available dietary assessment methods were included in the discussion to ensure that the final recommendation would be based on the best evidence. Six criteria were defined and used as additional guidance in the process. Results: The literature does not give a clear recommendation on the dietary assessment methods that are most suitable for children in the age group of 4-14 years. Nevertheless, on the basis of the literature, the recommendations were separated for preschoolers (4-6 years) and schoolchildren (7-14 years). Conclusion: For preschoolers, two non-consecutive days of a structured food record are recommended, using a (for children adapted) picture booklet and household measures for portion-size estimation. For schoolchildren, repeated 24-HDRs are recommended, using a picture booklet and household measures for portion-size estimation. In addition, the child should bring a booklet to register what is eaten out of home. One parent should assist the schoolchild at the 24-HDR interview, and therefore face-to-face interviews are required. European Journal of Clinical Nutrition (2011) 65, S58-S64; doi:10.1038/ejcn.2011.88
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The European Food Consumption Validation Project: conclusions and recommendations

Background/Objectives: To outline and discuss the main results and conclusions of the European Food Consumption Validation (EFCOVAL) Project. Subjects/Methods: The EFCOVAL Project was carried out within the EU Sixth Framework Program by researchers in 11 EU countries. The activities focused on (1) the further development of the EPIC-Soft software (the software developed to conduct 24-h dietary recalls (24-HDRs) in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study) and the validation of the 2-day non-consecutive 24-HDR method using EPIC-Soft, (2) defining and investigating the applicability of the most appropriate dietary assessment method to younger age groups and expanding the applicability of the software for use in exposure assessment of some potentially hazardous chemicals and (3) to improve the methodology and statistical methods that estimate usual intake distributions from short-term dietary
intake information and develop a methodology to quantify uncertainty in usual intake distributions. Results: The preexisting EPIC-Soft application was reprogrammed into a Windows environment and more than 60 new specifications were implemented in the software. A validation study showed that two non-consecutive EPIC-Soft 24-HDRs are suitable to estimate the usual intake distributions of protein and potassium of European adult populations. The 2-day non-consecutive 24-HDRs in combination with a food propensity questionnaire also appeared to be appropriate to rank individuals according to their fish and fruit and vegetable intake in a comparable way in five European centers. Dietary intake of (young) children can be assessed by the combination of EPIC-Soft 24-HDRs and food recording booklets. The EPIC-Soft-standardized method of describing foods is useful to estimate dietary exposure to potentially hazardous chemicals such as specific flavoring substances. With the developed Multiple Source Method, repeated non-consecutive 24-HDR data in combination with food propensity data can be used to estimate the population distribution of the usual intake by estimating the individual usual intakes. Conclusions: The findings provide sufficient evidence to conclude that the repeated 24-HDR using EPIC-Soft for standardization in combination with a food propensity questionnaire and modeling of usual intake is a suitable method for pan-European surveillance of nutritional adequacy and food safety among healthy adults and maybe in children aged 7 years and older. To facilitate this methodology in other European countries, the next step is to provide and standardize an implementation plan that accounts for maintenance and updates, sampling designs, national surveillance programs, tailored capacity building and training, and linkage to food composition and occurrence databases.


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Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.8 SJR 1.347 SNIP 1.179
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.586 SNIP 1.192 CiteScore 2.86
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.516 SNIP 1.183 CiteScore 2.78
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.422 SNIP 1.329 CiteScore 3.15
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.413 SNIP 1.22 CiteScore 3
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.215 SNIP 1.14 CiteScore 2.66
The standardized computerized 24-h dietary recall method EPIC-Soft adapted for pan-European dietary monitoring

Background/Objectives: The EPIC-Soft program (the software initially developed to conduct 24-h dietary recalls (24-HDRs) in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study) was recommended as the best way to standardize 24-HDRs for future pan-European dietary monitoring. Within European Food Consumption Validation (EFCOVAL), EPIC-Soft was adapted and further developed on various aspects that were required to optimize its use. In this paper, we present the structure and main interview steps of the EPIC-Soft program, after implementation of a series of new specifications deemed to satisfy specific requirements of pan-European monitoring surveys and other international studies. Subjects/Methods: Updates to optimize the EPIC-Soft program were ascertained according to the following stepwise approach: (1) identification of requested specifications to be potentially implemented through an ad hoc 'EPIC-Soft specifications questionnaire' sent to past, current and possible future users of the software; (2) evaluation of the specifications in collaboration with two ad hoc task force groups and through a workshop; (3) development of a technical solution for each retained specification; (4) implementation of the specifications by software developers; (5) testing and amendment of bugs. Results: A number of new specifications and facilities were implemented to EPIC-Soft program. In addition, the software underwent a full reprogramming and migration to a modern Windows environment, including changes in its internal architecture and user interface. Although the overall concept and structure of the initial software were not changed substantially, these improvements ease the current and future use of EPIC-Soft and increase further its adaptation to other countries and study contexts. Conclusions: EPIC-Soft is enriched with further functions and facilities expected to fulfill specific needs of pan-European dietary monitoring and risk assessment purposes. The validity, feasibility and relevance of this software for different national and international study designs, and the logistical aspects related to its implementation are reported elsewhere. European Journal of Clinical Nutrition (2011) 65, SS-S15; doi:10.1038/ejcn.2011.83
The standardized EPIC-Soft 24-hour recall software adapted for pan-European dietary monitoring and other dietary studies

General information
State: Published
Organisations: Division of Nutrition, National Food Institute, International Agency for Research on Cancer, National Institute of Public Health and the Environment, Ghent University, ANSES - French Agency for Food, Environmental and Occupational Health & Safety, Max Rubner Institut, Wageningen University & Research
Pages: 58-59
Publication date: 2011
Main Research Area: Technical/natural sciences

Publication information
Journal: Annals of Nutrition and Metabolism
Volume: 58
ISSN (Print): 0250-6807
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.209 SNIP 0.997 CiteScore 2.69
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.093 SNIP 1.03 CiteScore 2.55
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.284 SNIP 1.12 CiteScore 2.64
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.949 SNIP 1.014 CiteScore 2.46
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.841 SNIP 0.89 CiteScore 2.35
Vitamin D status in infants: relation to nutrition and season

In a cross-sectional study, the primary objective was to assess the plasma concentration of 25-hydroxyvitamin D (25(OH)D) in healthy 9-month-old infants (n = 255). The secondary objective was to evaluate nutritional variables and season in relation to 25(OH) D. The concentration of 25(OH) D was 77.2 +/- 22.7 nmol/l (mean +/- s.d.), ranging from 12 to 151 nmol/l. During the first 9 months, 97% received vitamin D supplementation (10 µg/day) and 89% had sufficient levels of 25(OH) D (50-250 nmol/l). In multiple regression analysis, controlled for body mass index (BMI) and intake of infant formula, a longer period of exclusive breastfeeding (P = 0.026) and breastfeeding at 9 months (P = 0.001) were both associated with lower levels. Dietary vitamin D intake was 4.4 +/- 3.1 µg/day and in multiple regression analysis, controlled for BMI, intake of infant formula and mean energy intake, it was positively associated with 25(OH) D (P = 0.001). There was a significant seasonal difference in 25(OH) D, with higher levels during summer-autumn compared with winter-spring (P = 0.021) after control for BMI. European Journal of Clinical Nutrition (2011) 65, 657-660; doi: 10.1038/ejcn.2010.285; published online 19 January 2011
Brug af kosttilskud blandt uge danskere - og sammenhæng med næringsstofindtag, kostkvalitet og livsstilsfaktorer

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Number of pages: 56
Publication date: Mar 2010

Publication information
Place of publication: Søborg
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
ISBN (Print): 978-87-92158-63-5
Original language: Danish
Main Research Area: Technical/natural sciences
Publication: Research › Report – Annual report year: 2010

Danskernes kostvaner 2003 - 2008: Hovedresultater

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Number of pages: 200
Publication date: Jan 2010

Publication information
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
ISBN (Print): 978-87-92158-67-3
Original language: Danish
Main Research Area: Technical/natural sciences
Publication: Research › Report – Annual report year: 2010

Harmonisation of food categorisation systems for dietary exposure assessments among European children
Within the European project called EXPOCHI (Individual Food Consumption Data and Exposure Assessment Studies for Children), 14 different European individual food consumption databases of children were used to conduct harmonised dietary exposure assessments for lead, chromium, selenium and food colours. For this, two food categorisation systems were developed to classify the food consumption data in such a way that these could be linked to occurrence data of the considered compounds. One system served for the exposure calculations of lead, chromium and selenium. The second system was developed for the exposure assessment of food colours. The food categories defined for the lead, chromium and selenium exposure calculations were used as a basis for the food colour categorisation, with adaptations to optimise the linkage with the food colour occurrence data. With this work, an initial impetus was given to make user-friendly food categorisation systems for contaminants and food colours applicable on a pan-European level. However, a set of difficulties were encountered in creating a common food categorisation system for 14 individual food consumption databases that differ in the type and number of foods coded and in level of detail provided about the consumed foods. The work done and the problems encountered in this project can be of interest for future projects in which food consumption data will be collected on a pan-European level and used for common exposure assessments.

General information
State: Published
Organisations: Division of Nutrition, National Food Institute, Ghent University, Wageningen IMARES, National Research Institute for Food and Nutrition, University of Crete, National Institute of Public Health, Agence Française de Sécurité Sanitaire des Aliments, CIBER Epidemiología y Salud Pública, European Food Safety Authority, National Food Administration, Rheinische Friedrich-Wilhelms-Universität Bonn, Finnish Food Safety Authority, National Food and Nutrition Institute, Research and Education Institute of Child Health, University of Barcelona
Grundlag for anbefalinger for sund mad i vuggestuer og børnehaver

General information
State: Published
Organisations: Division of Nutrition, National Food Institute, FoodDTU
Authors: Christensen, L. M. (Intern), Gondolf, U. H. (Intern), Køngerskov, H. (Intern), Trolle, E. (Intern)
Number of pages: 56
Publication date: Nov 2009

Publication information
Place of publication: Søborg
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
ISBN (Print): 978-87-92158-64-2
Original language: Danish
Applicant: Fødevarestyrelsen
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 255471
Publication: Commissioned › Report – Annual report year: 2009

Beskrivelse af 8- til 10-årige og 12- til 14-årige børns kost – med fokus på indtag i skole og fritidsordning

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Authors: Hoppe, C. (Intern), Biltoft-Jensen, A. P. (Intern), Trolle, E. (Intern), Tetens, I. (Intern)
Number of pages: 50
Publication date: Oct 2009

Publication information
Place of publication: Søborg
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
ISBN (Print): 978-87-92158-62-8
Original language: Danish
Main Research Area: Technical/natural sciences
Source: Research › Report – Annual report year: 2009

Nordic monitoring on diet, physical activity and overweight: Part 1: Description of a common Nordic method for collecting representative data

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 54
Publication date: Oct 2009

Publication information
Place of publication: Søborg
Edition: 1
ISBN (Print): 978-87-92158-59-8
Original language: English
Main Research Area: Technical/natural sciences
Physical activity, Diet, Monitoring, Nordic
Source: orbit
Source-ID: 255911
Publication: Research › Report – Annual report year: 2009
Development of a valid, yet simple and easy nutrition profiling model

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 18
Publication date: Feb 2009

Publication information
Publisher: National Food Institute, Technical University of Denmark
Edition: 1
ISBN (Print): 978-87-92158-27-7
Original language: English
Main Research Area: Technical/natural sciences
Electronic versions:
Development of a valid, yet simple and easy nutrition profiling model.pdf
Source: orbit
Source-ID: 246622
Publication: Research › Report – Annual report year: 2009

EFCOVAL: EUROPEAN FOOD CONSUMPTION VALIDATION

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: de Boer, E. (Ekstern), Slimani, N. (Ekstern), van't Veer, P. (Ekstern), Heiner, B. (Ekstern), Leclercq, C. (Ekstern), Ocke, M. (Ekstern), Trolle, E. (Intern)
Pages: 88-89
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Annals of Nutrition and Metabolism
Volume: 55
Issue number: Suppl. 1
ISSN (Print): 0250-6807
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.209 SNIP 0.997 CiteScore 2.69
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.093 SNIP 1.03 CiteScore 2.55
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.284 SNIP 1.12 CiteScore 2.64
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.949 SNIP 1.014 CiteScore 2.46
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.841 SNIP 0.89 CiteScore 2.35
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
European Nutrition and Health

General information
State: Published
Organisations: Department of Chemical and Biochemical Engineering, National Food Institute, FoodDTU
Publication date: 2009

Publication information
Publisher: Forum Nutr
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 263705
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2009

European Nutrition and Health Report 2009

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Pages: 1-40
Publication date: 2009
Main Research Area: Technical/natural sciences
European Nutrition and Health Report 2009
The general aim of the ENHR II project is to provide a comprehensive and up-to-date report on the nutrition and health situation in Europe that focuses on diet, physical activity, tobacco use and alcohol consumption.

The European Nutrition and Health Report 2009 will contribute to the identification of major nutrition and health problems in the EU regions and to the monitoring and evaluation of food and nutrition policies already in place within the Member States.

The method implies collecting and critically reviewing available data on the most common indicators used for the assessment of nutrition and health situation of 25 European countries.

The European Nutrition and Health Report 2009 will provide information on dietary habits, diet related health indicators as well as established food and nutrition policies in European countries.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Number of pages: 412
Publication date: 2009

Publication information
Publisher: Karger
Volume: 55
Original language: English

Series: Forum of Nutrition
Volume: 62
ISSN: 1660-0347
Main Research Area: Technical/natural sciences
Electronic versions:
enhrii_book.pdf
Links:

Bibliographical note
Note the author list is not complete
Publication: Research - peer-review › Book – Annual report year: 2009

Feasibility of 2x24-hours computer assisted dietary recall methodology among school children for trans-European surveys

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Amiano, P. (Ekstern), Ege, M. (Intern), Bower, E. (Ekstern), Lioret, S. (Ekstern), Brants, H. (Ekstern), Kaic-Kak, A. (Ekstern), de Boer, E. (Ekstern), Andersen, L. (Ekstern)
Publication date: 2009
Event: Abstract from 7th International Conference on Diet and Activity Methods, Washington DC, United States.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 247126
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Feasibility of 2x24-hours computer assisted dietary recall methodology among school children for trans-European surveys

General information
State: Published
Mere frugt og grønt til alle måltiderne

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Authors: Fagt, S. (Intern), Trolle, E. (Intern)
Number of pages: 2
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: E-artikel fra DTU Fødevareinstitutet
Issue number: 3
ISSN (Print): 1904-5581
Original language: Danish
Publication: Research › Journal article – Annual report year: 2009

Nordisk monitorering af kost, fysisk aktivitet og overvægt

General information
State: Published
Organisations: National Food Institute, Division of Nutrition
Authors: Fagt, S. (Intern), Trolle, E. (Intern)
Number of pages: 4
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: E-artikel fra DTU Fødevareinstitutet
Issue number: 4
ISSN (Print): 1904-5581
Original language: Danish
Publication: Research › Journal article – Annual report year: 2009

Validation of a pre-coded food record used for 6-month to 3-year-old Danish infants

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Gondolf, U. H. (Intern), Trolle, E. (Intern)
Publication date: 2009
Event: Abstract from 7th International Conference on Diet and Activity Methods, Washington DC, United States.
Main Research Area: Technical/natural sciences
Links:
http://www.icdam.org/
Source: orbit
Source-ID: 247114
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Vitamin D supplementation does not affect serum lipids and lipoproteins in Pakistani immigrants

Potential long-term negative effects of increased vitamin D consumption are not thoroughly examined. The aim of this study was to investigate possible negative effects of vitamin D supplementation on serum lipids and lipoproteins. A 1-year long randomised double-blinded placebo-controlled intervention study with two doses of vitamin D3 (10 and 20 g/day) was
carried out among 89 women (18–53 years of age) and 84 men (18–64 years of age) of Pakistani origin living in Denmark with low vitamin D status. This study did not find changes in total cholesterol, LDL-cholesterol, HDL-cholesterol, LDL-cholesterol/HDL-cholesterol ratio, VLDL-cholesterol and triacylglycerol after daily supplementation with 10 or 20 g vitamin D for 1 year. In conclusion, increasing the vitamin D intake by 10–20 g per day for 1 year is safe for Pakistani immigrants with regards to serum lipids and lipoproteins.

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Andersen, R. (Intern), Brot, C. (Ekstern), Mejborn, H. (Intern), Mølgaard, C. (Ekstern), Skovgaard, L. T. (Ekstern), Trolle, E. (Intern), Ovesen, L. (Ekstern)
Pages: 1150-1153
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: European Journal of Clinical Nutrition
Volume: 63
Issue number: 9
ISSN (Print): 0954-3007
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.8 SJR 1.347 SNIP 1.179
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.586 SNIP 1.192 CiteScore 2.86
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.516 SNIP 1.183 CiteScore 2.78
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.422 SNIP 1.329 CiteScore 3.15
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.413 SNIP 1.22 CiteScore 3
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.215 SNIP 1.14 CiteScore 2.66
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.311 SNIP 1.28
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 1.229 SNIP 1.371
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 1.198 SNIP 1.215
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.118 SNIP 1.208
Web of Science (2007): Indexed yes
Fuldkorn – Definition og vidensgrundlag for anbefaling af fuldkornsindtag i Danmark

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 101
Publication date: Nov 2008

Publication information
Place of publication: Søborg
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 2
Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 245962
Publication: Research › Report – Annual report year: 2008

Danskernes kostvaner 1995-2006: Status og udvikling med focus på frugt og grønt samt sukker

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Fagt, S. (Intern), Biltoft-Jensen, A. P. (Intern), Matthiessen, J. (Intern), Groth, M. V. (Intern), Christensen, T. (Intern), Trolle, E. (Intern)
Number of pages: 56
Publication date: Sep 2008

Publication information
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
Original language: Danish
Main Research Area: Technical/natural sciences
Development of a recommended food intake pattern for healthy Danish adolescents consistent with the Danish dietary guidelines, nutrient recommendations and national food preferences

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Pages: 451-463
Publication date: 2008
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Human Nutrition and Dietetics
Volume: 21
ISSN (Print): 0952-3871
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.51 SJR 1.051 SNIP 1.021
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.033 SNIP 0.93 CiteScore 2.17
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.628 SNIP 1.038 CiteScore 1.9
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.912 SNIP 1.146 CiteScore 2.11
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.836 SNIP 1 CiteScore 1.94
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.693 SNIP 0.789 CiteScore 1.63
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.729 SNIP 1.053
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.676 SNIP 0.88
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.709 SNIP 0.827
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.913 SNIP 0.91
Scopus rating (2006): SJR 0.561 SNIP 0.874
Scopus rating (2005): SJR 0.516 SNIP 0.951
Scopus rating (2004): SJR 0.437 SNIP 0.803
Scopus rating (2003): SJR 0.287 SNIP 0.502
Scopus rating (2002): SJR 0.253 SNIP 0.4
Scopus rating (2001): SJR 0.265 SNIP 0.586
Duration of Breastfeeding in Denmark

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern)
Publication date: 2008
Event: Poster session presented at 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 234312
Publication: Research - peer-review › Journal article – Annual report year: 2008

Prevalence and trends in overweight and obesity among children and adolescents in Denmark

Aim: To study the current prevalence and trends in overweight and obesity among children and adolescents in Denmark from 1995 to 2000—2002. Methods: Cross-sectional national dietary surveys were conducted in 1995 and 2000—2002. The analysis was based on two random population samples from the Danish civil registration system. Body mass index (BMI) was calculated from self-reported height and weight for 1,026 and 1,152 children and adolescents (4—18 years), who participated in 1995 and 2000—2002, respectively. The prevalence of overweight and obesity was defined according to the international age and gender-specific child BMI cut-off points. In the statistical analysis, overweight and obesity were included in the prevalence of overweight. Results: Mean BMI increased significantly between 1995 and 2000—2002 for all combinations of age groups (4—6, 7—10, 11—14 and 15—18 years) and genders. Prevalence of overweight increased between survey years for boys and girls for all age groups (4—6, 7—10, 11—14 and 15—18 years), although formal statistical significance was not reached (p>0.05). When all children and adolescents (4—18 years) were analysed, the prevalence of overweight rose significantly from 10.9% (95% confidence interval (CI) 9.0—12.8) to 14.4% (95% CI 12.5—16.3) between 1995 and 2000—2002 (p=0.01), whereas the increase in the prevalence of obesity did not reach significance (1995, 2.3% (95% CI 1.3—3.3) vs. 2000—2002, 2.4% (95% CI 1.6—3.3); p=0.74). Conclusions: The present study revealed a significant increase from 1995 to 2000—2002 in mean BMI for boys and girls for all age groups and a significant increase in the prevalence of overweight when all Danish children and adolescents (4—18 years) were analysed.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, National Veterinary Institute, Technical University of Denmark
Authors: Matthiessen, J. (Intern), Groth, M. V. (Intern), Fagt, S. (Intern), Bittoft-Jensen, A. P. (Intern), Stockmarr, A. (Intern), Andersen, J. S. (Ekstern), Trolle, E. (Intern)
Pages: 153-160
Publication date: 2008
Main Research Area: Technical/natural sciences
Relations

Activities:
Social inequality in obesity and the obesity epidemic for children: A review
Source: orbit
Source-ID: 255881
Publication: Research - peer-review › Journal article – Annual report year: 2008

Relative validation of a pre-coded food record used among 3-year-old Danish infants

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Gondolf, U. H. (Intern), Trolle, E. (Intern)
Publication date: 2008
Event: Abstract from 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 235600
Publication: Research › Conference abstract for conference – Annual report year: 2008

Undersøgelse af merudgifter til diabeteskost 2007-2008

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Gille, M. (Intern), Biltoft-Jensen, A. P. (Intern), Brolev, K. S. (Ekstern), Christensen, M. B. (Ekstern), Jensen, J. D. (Ekstern), Rask, I. K. (Ekstern), Søndergaard, K. (Ekstern), Ygil, K. H. (Intern), Trolle, E. (Intern)
Publication date: 2008
Publication information
Publisher: Servicestyrelsen
ISBN (Print): 87-92-03147-1
Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 236886
Publication: Research › Report – Annual report year: 2008

Vitamin D supplements do not affect serum lipids and lipoproteins

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Andersen, R. (Intern), Brot, C. (Ekstern), Mejborn, H. (Intern), Mølgaard, C. (Ekstern), Skovgaard, L. T. (Ekstern), Trolle, E. (Intern), Ovesen, L. (Ekstern)
Publication date: 2008
Event: Abstract from 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 236662
Publication: Research › Conference abstract for conference – Annual report year: 2008

Vitamin D supplements do not affect serum lipids and lipoproteins

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Andersen, R. (Intern), Brot, C. (Ekstern), Mejborn, H. (Intern), Mølgaard, C. (Ekstern), Skovgaard, L. T. (Ekstern), Trolle, E. (Intern), Ovesen, L. (Ekstern)
Publication date: 2008
Event: Poster session presented at 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Whole grain intake in the Danish population

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Publication date: 2008
Event: Poster session presented at 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 234789
Publication: Research - peer-review › Poster – Annual report year: 2008

Wholegrain intake in the Danish population

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Publication date: 2008
Event: Abstract from 9th Nordic Nutrition Conference, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 234332
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2008

Frugt, grøntsager og sundhed - Opdatering af vidensgrundlaget for længdeanbefalingen 2002-2006

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, Technical University of Denmark
Authors: Hallund, J. (Intern), Dragsted, L. O. (Ekstern), Halkjær, J. (Ekstern), Madsen, C. (Ekstern), Ovesen, L. (Ekstern), Rasmussen, H. H. (Ekstern), Tetens, I. (Intern), Tjønneland, A. (Ekstern), Trolle, E. (Intern)
Number of pages: 121
Publication date: Oct 2007

Publication information
Publisher: Danmarks Tekniske Universitet, Fødevareinstituttet
Edition: 1
ISBN (Print): 978-87-92158-12-3
Original language: Danish
Main Research Area: Technical/natural sciences
Electronic versions:
opdateringvidensgrundlag2007.pdf
Source: orbit
Source-ID: 247476
Publication: Research › Report – Annual report year: 2007

Kantinemåltider - Ernæringsmæssig kvalitet

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Lassen, A. D. (Intern), Hansen, K. S. (Ekstern), Trolle, E. (Intern)
Number of pages: 130
Publication date: Oct 2007

Publication information
Comparison of buffet and a la carte serving at worksite canteens on nutrient intake and fruit and vegetable consumption

Objective: To evaluate the nutritional composition of worksite canteen lunches and to examine the impact of two meal serving systems on employee intake, i.e. buffet style with a fixed price for a varied number of dishes and A la carte style with a separate price for each item on the menu. Design: Laboratory technicians observed employees' food selection and collected identical dishes. Food items were weighed separately to calculate the content of fruit and vegetables. The content of protein, fat and ash of each dish was chemically analysed and the carbohydrate and energy content calculated. Setting: Fifteen randomly chosen worksite canteens in Denmark: eight canteens serving buffet style and seven canteens with an A la carte line. Subjects: one hundred and eighty randomly chosen employees having lunch at the worksite canteens. Results: The average percentage energy from fat was 37 +/- 12 among men and 33 +/- 12 among women. No association was found between the meal serving system and energy intake or macronutrient composition. Eating at canteens serving buffet style, on the other hand, was associated with an increased intake of fruit and vegetables, on average 76 g, and a lower energy density of the food for both genders. Conclusion: The results highlight the possibilities of promoting healthy food choices in the catering sector and the need to identify models of healthy catering practice. Serving buffet style appears to be a promising strategy in order to increase fruit and vegetable consumption in food served away from home.

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Lassen, A. D. (Intern), Hansen, K. (Ekstern), Trolle, E. (Intern)
Pages: 292-297
Publication date: 2007
Main Research Area: Technical/natural sciences
Hvad spiser små børn?

**General information**
State: Published
Organisations: Division of Food Production Engineering, National Food Institute, Division of Nutrition
Authors: Jørgensen, S. B. (ed.) (Intern), Trolle, E. (Intern)
Publication date: 2007
Main Research Area: Technical/natural sciences

**Publication information**
Journal: FoodDTU Midt i Ugen
Original language: English
Source: orbit
Source-ID: 214270
Publication: Research - peer-review › Journal article – Annual report year: 2007

Improving a dietary assessment method for use in day cares

**General information**
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Gondolf, U. H. (Intern), Trolle, E. (Intern)
Pages: 176-176
Publication date: 2007
Main Research Area: Technical/natural sciences

**Publication information**
Journal: Annals of Nutrition and Metabolism
Volume: 51
Issue number: Suppl. 1
ISSN (Print): 0250-6807
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.209 SNIP 0.997 CiteScore 2.69
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.093 SNIP 1.03 CiteScore 2.55
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.284 SNIP 1.12 CiteScore 2.64
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.949 SNIP 1.014 CiteScore 2.46
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.841 SNIP 0.89 CiteScore 2.35
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.872 SNIP 0.951 CiteScore 2.38
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
Introduction of Complementary Foods to Danish Infants

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern)
Publication date: 2007
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 214293
Publication: Research › Poster – Annual report year: 2007

Validation of a new method for the assessment of the diet of infants and young children

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Christensen, T. (Ekstern), Ege, M. (Intern), Hermansen, B. (Ekstern), Michaelsen, K. F. (Ekstern), Tetens, I. (Intern)
Publication date: 2006
Event: Poster session presented at Sixth International Conference on Dietary Assessment Methods, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 236890
Publication: Research › Poster – Annual report year: 2007

Kostanbefalinger til idrætsaktive børn og unge: Faglig baggrund

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Mad på arbejde - Metode, forløb og evaluering af projektet

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 48
Publication date: 2005

The Danish Dietary Recommendations 2005

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Astrup, A. (Ekstern), Andersen, N. L. (Intern), Stender, S. (Ekstern), Trolle, E. (Intern)
Publication date: 2005

Udviklingen i danskernes kost 1985-2001: med fokus på sukker og alkohol samt motivation og barrierer for sund livsstil

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 130
Publication date: Jan 2004
Fødevareindustri, forskere og myndigheder - partnere for sundere kostvaner?

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Mikkelsen, B. E. (Intern), Beck, A. M. (Intern), Trolle, E. (Intern)
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information
Journal: Alimenta
Volume: 4
ISSN (Print): 0002-5402
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
BFI (2013): BFI-level 1
ISI indexed (2013): ISI indexed no
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: Danish
Source: orbit
Source-ID: 247739
Publication: Research - peer-review › Journal article – Annual report year: 2004

Intervention successes to get inspiration from: Effectiveness of selected programmes

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Rasmussen, L. B. (Intern), Trolle, E. (Intern)
Publication date: 2004
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 247747
Publication: Research › Conference abstract for conference – Annual report year: 2004

Partnerships for better nutrition - an analysis of how Danish authorities, companies, organisations and practitioners are networking to promote healthy eating

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Mikkelsen, B. E. (Intern), Trolle, E. (Intern)
Pages: 1-9
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information
Journal: Scandinavian Journal of Nutrition/Næringsforskning
Volume: 48
Issue number: 00
ISSN (Print): 1102-6480
Ratings:
Successful strategies to increase the consumption of fruits and vegetables: results from the Danish '6 a day' Work-site Canteen Model Study

Objective: To investigate changes in the consumption of fruits and vegetables in work-site canteens using the tools of continuous quality improvement, and to gain knowledge of practical strategies being effective in increasing the consumption. Design: Study design included baseline data collection, an 8 h training session for all canteen staff, goal setting, strategy development and implementation for each canteen, end-point data collection and a follow-up data collection 4 months from the end-point (1 year from baseline). The main outcome measurement was average grams of fruits and vegetables per lunch meal served per customer (net weight; potatoes not included). Setting: Five workplaces in Denmark: a military base, an electronic component distributor, a bank, a town hall and a waste-handling facility. Subjects: Work-site canteen managers, staff and customers. Results: There were significant increases in the total consumption of fruits and vegetables for all five work-site canteens from baseline to end-point, 70 g per customer on average (67, 54, 39, 88 and 103 g, respectively). The follow-up data collection showed that the canteens either maintained or significantly increased consumption, the average increase being 95 g per customer compared with baseline (77, 60, 86, 70 and 183 g, respectively). Conclusions: This study demonstrates a large potential for work-site canteens to increase customers’ intake of fruits and vegetables at lunch and suggests a broad spectrum of strategies to compose meals that are both rich in fruits and vegetables and attractive to customers.
General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Lassen, A. D. (Intern), Møller, L. D. (Ekstern), Trolle, E. (Intern)
Publication date: 2003
Event: Poster session presented at Fødevareministeriets ernæringskonference, København, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239918
Publication: Research - peer-review › Journal article – Annual report year: 2004

6 om dagen på arbejdspladsen

6 om dagen på arbejdspladsen
Helhedssyn på fisk og fiskevarer

General information
State: Published
Organisations: Division of Microbiology and Risk Assessment, National Food Institute, Division of Nutrition, National Institute of Aquatic Resources, Communications and Management Secretariat, Division of Food Chemistry, Division of Toxicology and Risk Assessment, Department of Environmental Science and Engineering
Publication date: 2003

Publication information
Publisher: Fødevaredirektoratet
ISBN (Print): 87-91399-31-9
Original language: Danish
Main Research Area: Technical/natural sciences
Electronic versions:
Helhedssyn på fisk og fiskevarer[1].pdf
Source: orbit
Source-ID: 245498
Publication: Research › Report – Annual report year: 2003

Projekt 6 om dagen i storkøkkener: Brugerundersøgelsen

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Darting, B. (Ekstern), Thorsen, A. V. (Intern), Lassen, A. D. (Intern), Trolle, E. (Intern)
Publication date: 2003

Publication information
Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239943
Publication: Research › Report – Annual report year: 2003

Projekt 6 om dagen i storkøkkener: Slutrapport

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Thorsen, A. V. (Intern), Trolle, E. (Intern), Lassen, A. D. (Intern)
Publication date: 2003

Publication information
Original language: Danish
Main Research Area: Technical/natural sciences

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Number of pages: 64
Publication date: Jun 2002

Publication information
Publisher: Fødevaredirektoratet
Edition: 1
ISBN (Print): 87-91189-37-3
Original language: Danish
Series: Fødevare Rapport 2002
Main Research Area: Technical/natural sciences

Bibliographical note
ISSN: 1399-0829
Source: orbit
Source-ID: 238401
Publication: Research › Report – Annual report year: 2002

Development of a reliable method for the assessment of the diet of infants and young children

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Ege, M. (Ekstern), Hermansen, B. (Ekstern), Haraldsdóttir, J. (Ekstern), Michaelsen, K. F. (Ekstern)
Publication date: 2002
Event: Poster session presented at Food Congress 2002 : Future food – a scientific perspective, Center for advanced food study, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239141
Publication: Research › Poster – Annual report year: 2002

Evaluation of health claims from a nutritional perspective

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Thorsen, A. V. (Intern)
Number of pages: 137
Publication date: 2002

Publication information
Publisher: Nordic Council of Ministers, TemaNord
ISBN (Print): 92-893-0627-0
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239075
Publication: Research › Report – Annual report year: 2001
Frugt, grønt og helbred: Opdatering af vidensgrundlaget (Fruit, vegetables and health)

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Ovesen, L. (Ekstern), Andersen, L. N. (Ekstern), Dragsted, L. O. (Ekstern), Godtfredsen, J. (Ekstern), Haraldsdóttir, J. (Ekstern), Stender, S. (Ekstern), Sølling, K. (Ekstern), Tjønneland, A. (Ekstern), Trolle, E. (Intern)
Publication date: 2002

Publication information
Publisher: Fødevaredirektoratet
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239073
Publication: Research - peer-review › Report – Annual report year: 2002

Kost og fysisk aktivitet: Indsatsområder i forebyggelsen og inden for den organiserede idræt

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Biltoft-Jensen, A. P. (Intern), Bundgaard, T. (Ekstern), Clemmensen, I. H. (Ekstern), Heitmann, B. L. (Ekstern), Lorenzen, K. (Ekstern), Rasmussen, L. B. (Ekstern), Søndergaard, H. (Ekstern), Trolle, E. (Intern)
Publication date: 2002

Publication information
Place of publication: Søborg, Danmark
Publisher: Fødevaredirektoratet
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239167
Publication: Research - peer-review › Report – Annual report year: 2002

Maden hos indvandrere og flygtninge i Danmark

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern)
Publication date: 2002

Publication information
Publisher: Ministeriet for Fødevarer, Landbrug og Fiskeri, Fødevaredirektoratet
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239076
Publication: Research - peer-review › Report – Annual report year: 2002

Guidelines and conditions for use of health claims in Denmark

General information
State: Published
Organisations: Division of Nutrition, National Food Institute, Division of Toxicology and Risk Assessment
Authors: Mejborn, H. (Intern), Dragsted, L. O. (Ekstern), Dyerberg, J. (Ekstern), Koch, B. (Ekstern), Poulsen, M. (Intern), Trolle, E. (Intern), Ovesen, L. (Ekstern)
Pages: 35-39
Publication date: 2001
Main Research Area: Technical/natural sciences
Kost og fysisk aktivitet: Indsatsområder i forebyggelsen og inden for den organiserede idræt

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Biltoft-Jensen, A. P. (Intern), Bundgaard, T. (Ekstern), Clemmensen, I. H. (Ekstern), Heitmann, B. L. (Ekstern), Lorenzen, K. (Ekstern), Matthiessen, J. (Intern), Rasmussen, L. B. (Ekstern), Søndergaard, H. (Ekstern), Trolle, E. (Intern)
Publication date: 2001

Publication information
Place of publication: København
Publisher: Fødevaredirektoratet
Original language: Danish

Series: Fødevare Rapport 2001
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 238403
Publication: Research › Report – Annual report year: 2001

Udviklingen i danskernes kostvaner: 1 Forsyningen af fødevarer 1955-1999

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Fagt, S. (Intern), Trolle, E. (Intern)
Publication date: 2001

Publication information
Publisher: Fødevaredirektoratet
Edition: FødevareRapport 2001:10
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239074
Publication: Research - peer-review › Report – Annual report year: 2001

Fruit and vegetables – dietary habits in Denmark

General information
Anbefalinger for spædbarnets ernæring: Vejledning til sundhedspersonale

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Brostrøm, K. (Ekstern), Halken, S. (Ekstern), Husby, S. (Ekstern), Michaelsen, K. F. (Ekstern), Skafte, L. (Ekstern), Trolle, E. (Intern), Pedersen, T. (Ekstern)
Publication date: 1998

Publication information
Publisher: Sundhedsstyrelsen
Edition: 1
ISBN (Print): 978-87-90365-89-9
Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239078
Publication: Research - peer-review › Report – Annual report year: 1998

Frugt og grønt: Anbefalinger for indtagelse

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Fagt, S. (Intern), Ovesen, L. (Ekstern)
Number of pages: 219
Publication date: 1998

Publication information
Publisher: Veterinær- og Fødevaredirektoratet
Edition: Publikation nr. 244
ISBN (Print): 87-90599-20-9
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239077
Publication: Research - peer-review › Report – Annual report year: 1998

Frugt og grøntsager - Anbefalinger for indtagelse: Publikation nr. 244

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (ed.) (Intern), Fagt, S. (ed.) (Intern), Ovesen, L. (Ed.) (Ekstern)
Publication date: 1996

Publication information
Publisher: Veterinær- og Fødevaredirektoratet
Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 244597
Publication: Research › Report – Annual report year: 1998
Cateringprodukter

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Thorsen, A. V. (Ekstern), Jørgensen, M. S. (Ekstern), Mikkelsen, B. E. (Ekstern), Hansen, K. B. (Ekstern)
Number of pages: 174
Publication date: 1996

Publication information
Publisher: Storkøkkencentret Levnedsmiddelstyrelsen
ISBN (Print): 87-89-53438-7
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239081
Publication: Research - peer-review › Report – Annual report year: 1996

Udviklingsmetoder

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Thorsen, A. V. (Intern), Trolle, E. (Intern), Mikkelsen, B. E. (Intern), Jørgensen, M. S. (Ekstern)
Publication date: 1996

Publication information
Publisher: Storkøkkencentret Levnedsmiddelstyrelsen
ISBN (Print): 87-89-53438-7
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 239082
Publication: Research › Report – Annual report year: 1996

Vitamin C retention and sensoric quality of potatoes and peas in a cook-chill system with packaging in modified atmosphere

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Petersen, M. A. (Ekstern), Trolle, E. (Intern)
Pages: 175-190
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Hygiene and Nutrition in Food Service and Catering
Volume: 1
ISSN (Print): 0968-5340
Original language: English
Source: orbit
Source-ID: 239038
Publication: Research - peer-review › Journal article – Annual report year: 1996

Nutrition Claims for Foods – a scientific nutritional evaluation on the situation in the Nordic countries

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Warming, D. (Ekstern), Trolle, E. (Intern), Nurttila, A. (Ekstern), Lindval, C. (Ekstern), Briem, B. (Ekstern)
Publication date: 1995
Færdigretter og halvfabrikata III Færdigretter pakket i modificeret atmosfære

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern), Petersen, M. A. (Ekstern), Mikkelsen, B. E. (Intern), Bjørn, H. (Ekstern), Persson, B. (Ekstern), Sørensen, A. (Ekstern)
Publication date: 1992

Færdigretter og halvfabrikata II - en analyse af udviklingen og fremtiden i forbruget af færdigretter og halvfabrikata i nogle europæiske lande

General information
State: Published
Organisations: Division of Nutrition, National Food Institute
Authors: Trolle, E. (Intern)
Publication date: 1991

Projects:

Reducing salt intake and optimizing sodium to potassium balance in families - Effectiveness and feasibility of a real-life based randomized controlled d intervention study

National Food Institute
Period: 01/02/2018 → 31/01/2021
Number of participants: 4
Phd Student:
Riis, Nanna Louise (Intern)
Supervisor:
Toft, Ulla Marie Nørgaard (Ekstern)
Trolle, Ellen (Intern)
Main Supervisor:
Lassen, Anne Dahl (Intern)

Financing sources
Source: Internal funding (public)
Name of research programme: Samfinansieret - Andet
Project: PhD
Healthy Kids are involved kids
National Food Institute
Period: 15/12/2014 → 06/04/2018
Number of participants: 9
Phd Student:
Stjernqvist, Nanna Wurr (Intern)
Supervisor:
Jensen, Bjarne Bruun (Ekstern)
Maindal, Helle Terkildsen (Ekstern)
Sabinsky, Marianne (Intern)
Tetens, Inge (Intern)
Main Supervisor:
Trolle, Ellen (Intern)
Examiner:
Andersen, Rikke (Intern)
Andersen, Pernille Tanggaard (Ekstern)
Løhre, Audhild (Ekstern)

Financing sources
Source: Internal funding (public)
Name of research programme: Samfinansierede - Virksomhed
Project: PhD

Kostundersøgelse blandt små børn i Danmark, 2014-2015
National Food Institute
Division of Nutrition
Holbæk Hospital
The Danish National Centre for Social Research
Period: 01/04/2014 → 31/03/2015
Number of participants: 4
Project participant:
Ejlerskov, Katrine Tschentscher (Intern)
Ege, Majken (Intern)
Nielsen, Trine Holmgaard (Intern)
Project Manager, academic:
Trolle, Ellen (Intern)
Project

Emnærings- og kvalitetsmæssige aspekter af økologisk omlægning i offentlige storkøkkener
National Food Institute
Period: 15/12/2013 → 07/06/2019
Number of participants: 4
Phd Student:
Tørsleff, Ellen Hyldgaard (Intern)
Supervisor:
Tetens, Inge (Intern)
Trolle, Ellen (Intern)
Main Supervisor:
Lassen, Anne Dahl (Intern)

Financing sources
Source: Internal funding (public)
Name of research programme: Samfinansieret - Andet
Project: PhD
**Anbefalinger for daginstitutionskost - Opdatering af ernæringsmæssige anbefalinger for frokost samt udvikling af anbefalinger for mellemmåltider**

National Food Institute

Division of Nutrition

Period: 01/10/2013 → 01/03/2015

Number of participants: 3

Project participant:
- Christensen, Lene Møller (Intern)
- Sabinsky, Marianne (Intern)
- Trolle, Ellen (Intern)

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**The role of dairy products in future healthy and sustainable diets**

The project aims at modeling Danish dietary patterns following the food based dietary guidelines from 2013 and the Nordic Nutrition Recommendations 2012, and at the same time are optimized with regard to the climate impact in terms of the Carbon Footprint (CO2 equivalents) of the diets.

The project will describe the combination of foods of these future sustainable diets, especially focusing on the role of various dairy products.

National Food Institute

Division of Risk Assessment and Nutrition

Research Group for Risk-Benefit

Period: 01/01/2013 → 31/12/2014

Number of participants: 6

Project participant:
- Trolle, Ellen (Intern)
- Knudsen, Vibeke Kildegaard (Intern)
- Thorsen, Anne Vibeke (Intern)
- Christensen, Tue (Intern)
- Ygil, Karin Hess (Intern)
- Mogensen, Lisbeth (Ekstern)

**Financing sources**

Source: Private funding (private)

Name of research programme: The Danish Dairy Research Foundation

Amount: 960,000.00 Danish Kroner

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**Effecten af omlægning til økologi i offentlige storkøkkener**

National Food Institute

Period: 01/11/2012 → 01/09/2016

Number of participants: 7

Phd Student:
- Sørensen, Nina Nørgaard (Intern)

Supervisor:
- Lassen, Anne Dahl (Intern)

Main Supervisor:
- Tetens, Inge (Intern)

Examiner:
- Trolle, Ellen (Intern)
- Bere, Elling (Ekstern)
- Kristensen, Niels Heine (Intern)

**Financing sources**

Source: Internal funding (public)
**Name of research programme:** Institut stipendie (DTU) Samf.
**Project:** PhD

**Intervention med målrettede kostråd på risikomarkører for hjertekarsygdom**

National Food Institute  
**Period:** 01/11/2012 → 28/03/2018  
**Number of participants:** 8  
**PhD Student:**  
Arentoft, Johanne Louise (Intern)  
**Supervisor:**  
Andersen, Elisabeth Wreford (Intern)  
Overvad, Kim (Ekstern)  
Tetens, Inge (Intern)  
**Main Supervisor:**  
Andersen, Rikke (Intern)  
**Examiner:**  
Trolle, Ellen (Intern)  
Thorsdottir, Inga (Ekstern)  
Toft, Ulla Marie Nørgaard (Ekstern)

**Financing sources**
**Source:** Internal funding (public)  
**Name of research programme:** Institut stipendie (DTU) Samf.
**Project:** PhD

**The Danish National Survey on Diet and Physical Activity**

Diet and physical activity influence the incidence of widespread diseases such as cardiovascular diseases and diabetes. In order to launch focused prevention initiatives and monitor developments in the population’s health-related lifestyle we need to systematically gather knowledge about and map population dietary and activity habits.

The National Food Institute is behind the Danish National Survey of Diet and Physical Activity. The Institute conducted national dietary surveys in 1985, 1995, 2000-2008 and 2011-2013. The survey has included physical activity in the two latest surveys, which is treated in a dietary context as well as an independent research field.

The survey is representative, multidisciplinary and maps the diet, physical activity and overweight of the Danish population as well as their determinants. It is a tool for assessing population nutrient intake as well as the degree to which official health policy objectives are met. It thus contributes with knowledge about the four key lifestyle factors: Diet, smoking, alcohol and physical activity in the Danish population.

The survey results have been published in several reports and in a wide range of journals and articles.

The National Food Institute uses the results for consulting and research within nutrition, for example about enrichment of foods, assessment of new ingredients, in relation to dietary recommendations and to target nutritional information at the general population. Data from the dietary studies also constitute an important element in risk assessments.

The National Food Institute cooperate with a wide range of Danish and international stakeholders on improving methodologies and conducting other dietary surveys.

The National Food Institute also collects supplementary dietary data for describing developments – for example through statistics data on the provision of foods.

National Food Institute

Division of Nutrition

**Office for Study Programmes and Student Affairs**
**Period:** 01/04/2011 → 30/09/2013  
**Number of participants:** 12  
**Acronym:** DANSDA  
**Project participant:**
Matthiessen, Jeppe (Intern)  
Biltoft-Jensen, Anja Pia (Intern)  
Knudsen, Vibeke Kildegaard (Intern)  
Sørensen, Mette Rosenlund (Intern)  
Søndergaard, Anders Budtz (Intern)  
Christensen, Lene Møller (Intern)  
Pedersen, Agnes N. (Intern)
**Opdatering af det videnskabelige grundlag for kostråd**

National Food Institute

Division of Nutrition

Period: 01/01/2011 → 01/10/2013

Number of participants: 14

Contact person:

Knudsen, Vibeke Kildegaard (Intern)

Gondolf, Ulla Holmboe (Intern)

Project participant:

Tjønneland, Anne (Ekstern)

Astrup, Arne (Ekstern)

Trolle, Ellen (Intern)

Mejborn, Heddie (Intern)

Hermansen, Kjeld (Ekstern)

Andersen, Lars Bo (Ekstern)

Jakobsen, Marianne Uhre (Ekstern)

Schwarz, Peter (Ekstern)

Grønlund, Trine Enevold (Ekstern)

Vestergård, Tove (Ekstern)

Hejgaard, Tatjana (Ekstern)

Project Manager, organisational:

Tetens, Inge (Intern)

Documents:

referat_kostraadsmoede_300112
referat_kostraadsmoede_040312
referat_kostraadsmoede_260313
referat_kostraadsmoede_030912
referat_kostraadsmoede_101011
referat_kostraadsmoede_041212

Project

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**Kostundersøgelse blandt spæd- og småbørn 2006-2007 (SOS)**

National Food Institute

Division of Nutrition

The Danish National Centre for Social Research

Period: 01/01/2010 → …

Number of participants: 4

Acronym: SOS

Project participant:

Gondolf, Ulla Holmboe (Intern)

Ege, Majken (Intern)

Nielsen, Trine Holmgaard (Intern)

Project Manager, organisational:

Trolle, Ellen (Intern)

Documents:

Rapport_-_Danskernes_kostvaner-spæd_-og_småbørn-rev._12.12.13(1)
Dietary Exposure Assessments for Children in Europe – EXPOCHI
The overall objective of the project is to create a relational network of different individual food consumption databases in children, representative for diverse regions/countries within Europe, covering different geographical areas and to use those data for specific exposure assessment case studies in children. The specific objectives of the call are to provide individual food consumption data for children for different Member States, and to carry out an independent exposure assessment study in children for food colours, selenium, chromium and lead. At present, there is no harmonised approach for the data collection of food consumption data in childhood populations. However, the data included in this project are representative at a national (or large regional) level: 14 regions covering 13 countries. Only data derived from 24-h dietary recalls and dietary records collected on at least two (non)consecutive days per individual are included in the project. EFSA provides the required occurrence data for the substances under study. The outcome is estimated distribution of long term dietary exposure levels in the relevant population group, based statistical models for long term exposure, using the Monte Carlo Risk Assessment (MCRA) software, developed by RIKILT – Institute of Food Safety (The Netherlands).
Nordic monitoring on diet, physical activity and overweight

In July 2006, the Nordic Council of Ministers adopted a Nordic Plan of Action on better health and quality of life through diet and physical activity. As an important element in the common Nordic Plan of Action, the Nordic Council of Ministers decided to develop a common Nordic monitoring of diet, physical activity and overweight. In 2007, a Nordic working group was established to carry out this development. The Nordic Plan of Action emphasizes that the monitoring should be simple and low cost and preferably based on indicator questions. The monitoring project consists of three parts. Part 1 describes a common Nordic method for collecting representative data, including description of sample size and characteristics, as well as practical considerations of the implementation of the monitoring in the Nordic countries. Part 2 validates the suggested methods against an objective method (physical activity) or existing survey methods (diet). A network on childhood growth is also established in the part of the project. Part 3 will be the first collection of data in all Nordic Countries, if financing is provided. The working group consists of scientists from Nordic research institutions and has held two meetings and a combined workshop and meeting in 2008. Before, between and after the meetings the working group has worked together by e-mails. The working group has finished part 1 of the project and has with funding from NICe and NKMT started a validation study running in 2009-2010. It is suggested that the future monitoring is conducted as a telephone interview based on indicator questions. In 2009, the validation study will take place in Iceland, Denmark, Norway and Finland. Diet indicators will be validated in Iceland and Denmark and physical activity indicators will be validated in Iceland, Finland and Norway. Also in 2009, a network of monitoring child growth the Nordic countries will be established. The aim of the network is to coordinate and harmonize central monitoring using the same measures, standards and way of analyses and to compare the development in overweight in the Nordic countries. Objective of the validation project The objective is to validate indicator questions on diet and physical activity among children, adolescents and adults and to establish a network on monitoring of childhood growth. Hypothesises: 1) The validation study will show that the indicator questions on diet reflect the nutritional quality of the total diet assessed by a reference method; and the indicator questions about meeting the recommended level of physical activity reflect the objectively measured physical activity. 2) The network will facilitate improvement in monitoring childhood overweight and obesity in the Nordic Countries. Plan for validation project The project is covered by four work packages. WP1 will cover the activities regarding validation of the diet indicator questions, WP2 will cover the activities regarding the physical activity questions, WP3 will cover the activities regarding the network on monitoring childhood growth and WP4 will cover the coordination within the project, the communication about the project and finally gathering the results of WP1, WP2 and WP3 (see additional information box). Validation diet (WP1) It has been decided that Iceland and Denmark validate the diet indicator questions. The indicators on diet will be measured by a short food frequency questionnaire (FFQ) and validated against a reference method, which is planned to be a food record. It is planned that a pilot study will be conducted in spring 2009 and the data collection will take place in August-November 2009. Validation physical activity (WP2) It has been decided that Iceland, Finland and Norway validate the physical activity questions. The level of physical activity will be measured by a questionnaire indicating participation in moderate and/or vigorous intensity physical activities and exercise. The self-report questionnaires will be validated against objectively measured physical activity by using 7 to 14 days monitoring of PA by accelerometers. Network on childhood growth (WP3) Included in the validation study is also the establishment of a network of monitoring child growth in the Nordic countries. The aim of the network is to coordinate and harmonize central monitoring of child growth using the same measures, standards and way of analyses and to compare the development in overweight in the Nordic countries. Coordination and communication (WP4) Coordination within the project and communication about the project will take place through project group meetings, project group e-mails, common e-mails to reference group, national meetings for reference group members and information on web sites. Timetable Spring 2009: completion of common questionnaires, including translation and retranslation, pilot study During 2009: data collection, data processing and analyses During 2010: final analyses, report medio 2010 and scientific paper and project report by the end of 2010 All work packages are running the whole project period. The work packages are coordinated by the project group, where all WP leaders are represented. This will ensure sharing of information from WP1, WP2 and WP3. WP1 and WP2 run in parallel, since the validation studies on diet and physical activity are conducted by different institutions in the Nordic countries, as shown in additional information. Results from WP1 and WP2 are finally gathered in WP4 and presented in a common report, since both indicator questions on diet and indicator questions on physical activity should represent the future common Nordic monitoring system. Results from WP3 will also contribute to the proposal for a common Nordic monitoring system, since inclusion of a few general health parameters will be discussed in WP3. The Network group of WP3 will benefit from WP1 and WP2, since the project manager and WP1 leader are members of the network group, regarding the discussion about development of indicators of diet and physical activity to be used in monitoring programs in schools. Objectives and target groups for communication activities The objective of the communication activities are: To disseminate the results of the project to a broad audience to ensure knowledge of the results, especially decision makers in the Nordic countries. To give decision makers the best possible scientific background for deciding to finance a common Nordic monitoring system. Target groups for the communication activities Report to NKMT and NICe will disseminate the results, especially to the Nordic Council of Ministers and Nordic Food and...
Health authorities, but also politicians, commercial actors, scientists, NGO’s and the public. Web articles will disseminate the results primarily to the public and the press and a scientific article will disseminate the results to the scientific world. The NKMT has interest of the results to be able to present plans for a common Nordic monitoring of diet, physical activity and overweight to the Nordic Ministers in the summer of 2010. The project will give technical and science based advises in relation to that, if needed.

National Food Institute
Division of Nutrition
University of Oslo
National Institute for Health and Welfare
Public Health Institute of Iceland
Sveriges Livsmedelsverk
Period: 01/01/2008 → 31/07/2015
Number of participants: 9
Project participant:
Andersen, Lene Frost (Ekstern)
Borodulin, Katja (Ekstern)
Thorgeirsdottir, Holmfridur (Ekstern)
Matthiessen, Jeppe (Intern)
Sørensen, Mette Rosenlund (Intern)
Barbieri, Helene (Ekstern)
Project Manager, organisational:
Fagt, Sisse (Intern)
Trolle, Ellen (Intern)
Project Manager, academic:
Knudsen, Vibeke Kildegaard (Intern)

European Food Consumption Validation
EFCOVAL aims at the further development and validation of a trans-European food consumption method to be used for estimation of the intake of foods, nutrients and potentially hazardous chemicals within the European adult population. As recommended by the EFCOSUM consortium, the computerized repeated 24-hour dietary recall method using EPIC-SOFT will be applied as the method for pan-European nutritional surveys to assess intake at an individual level. Within the project 4 main objectives can be distinguished: 1. To define, test and validate (relatively) a trans-European methodology for undertaking national representative dietary surveys among children, focusing on the age of 4 to 12 years. 2. Adaptation and improvement of the software (EPIC-SOFT). To facilitate the use of the software in all European countries, adaptation of the current version of EPIC-SOFT software to modern IT standards is necessary. For five selected countries, participating in the validation study (see 3), new (n=1) or revised (n=4) versions of EPIC-SOFT will be developed. For other countries best practice for the development of an own national version will be assessed. 3. Validation of the computerized 2x24-hour recall in five selected countries using biomarkers and already existing dietary information. Specific attention will be given to sources of uncertainty and methods will be developed to try quantifying these uncertainties. 4. Improvement of the methodologies to translate the collected food consumption data into the information needed by food policymakers. DTU Food has the lead f the work package (WP2) investigating objective 1.

Division of Nutrition
National Food Institute
German Institute of Human Nutrition
Ghent University
INRA Institut National de La Recherche Agronomique
International Agency for Research on Cancer
Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione
Wageningen IMARES
National Institute of Public Health
Prima informatics limited
**Complementary and young child feeding (CYCF)**

The project consists of 6 work packages exploring different aspects of CYCF from different disciplines. WP 1: Cohort study on diet, growth and other health parameters WP 2: Methodology for dietary assessment in children and a national survey WP 3: Early growth, CYCF, and obesity in the Danish National Birth Cohort WP 4: Iron, growth and infectious diseases WP 5: Early predictors of human food preferences WP 6: Parental thoughts about complementary feeding

Department of Nutrition, National Food Institute, DTU is responsible for WP2 which aims at validating the dietary assessment method of 7 day pre-coded food record against 7 day weighed food records and energy expenditure estimated by the double labelled water method. Further the food and nutrient intake is estimated in the cohort study of WP1 and related to intake estimates of the national survey among infants and young children.

**Division of Nutrition**

National Food Institute

University of Copenhagen

Period: 01/09/2006 → 31/12/2010

Number of participants: 8

Project participant:

Mølgaard, Christian (Ekstern)

Holm, Lotte (Ekstern)

Schack-Nielsen, Lene (Ekstern)

Hausner, Helene (Ekstern)

Møller, Per (Ekstern)

Tetens, Inge (Intern)

Trolle, Ellen (Intern)

Project Manager, organisational:

Michaelsen, Kim Fleischer (Ekstern)

**Towards a strategy for optimal vitamin D fortification, OPTIFORD**

The overall research plan for the project included five specific objectives achieved through five work packages, of which Danish Institute for Food and Veterinary Research (DFVF) participated in two: To assess the dose necessary to replenish vitamin D status in an immigrant population group with minimal sun exposure and to determine the effect on bone mass (WP3) To examine the influence of dissimilarities in environmental and behaviouristic patterns on supply levels of vitamin D between different European countries (WP4) Besides, Division of Nutrition was the scientific, administrative and financial coordinator of the project.

Division of Nutrition

National Food Institute

University of Helsinki

Royal Veterinary and Agricultural University

University College Cork

Universidad Complutense

National Food and Nutrition Institute

Period: 01/01/2001 → 30/06/2004

Number of participants: 4

Project participant:

Andersen, Rikke (Intern)

Jakobsen, Jette (Intern)

Mejborn, Heddie (Intern)

Project Manager, organisational:

Trolle, Ellen (Intern)
Activities:

Økologisk omstilling af offentlige køkkener under Økologisk Handlingsplan 2020 - Fastholdelse af økologiprocenter og brug af det økologiske spisemærke 1 år efter afslutningen af projekterne: Resultater fra den kvalitativ analyse
Period: Jan 2017
Anne Dahl Lassen (Participant)
Ellen Trolle (Participant)
National Food Institute
Division of Risk Assessment and Nutrition

Description
Head: Anne Dahl Lassen
Degree of recognition: National
Activity: Other

Økologisk omstilling af offentlige køkkener under Økologisk Handlingsplan 2020 - Fastholdelse af økologiprocenter og brug af det økologiske spisemærke 1 år efter afslutningen af projekterne: Resultater fra den kvantitative analyse
Period: Jan 2017
Anne Dahl Lassen (Participant)
Ellen Trolle (Participant)
National Food Institute
Division of Risk Assessment and Nutrition

Description
Head: Anne Dahl Lassen
Activity: Other

Dietary assessment in specific groups
Period: 1 Oct 2008
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

Description
Efcoval workshop: Methodology of validation studies
Place: Gent

Related external organisation
Unknown external organisation
Activity: Talks and presentations › Conference presentations

Dietary surveys on lipids.: The Danish National Survey of Dietary Habits and Physical Activity
Period: 30 Apr 2008
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

Description
Place: DTU

Related external organisation
Unknown external organisation
Nordic plan of Action on better health and quality of life through diet and physical activity
Period: 1 Jan 2007 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

The Danish National Survey of Dietary Habits and Physical Activity: 7 d record
Period: 1 Jan 2007 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

Increasing the intake of fruit and vegetables – ‘6 a Day’ in Denmark
Period: 1 Jan 2006 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

The ‘6- a-Day Campaign’ in Denmark - and the intake of vegetables and fruits in the Danish population
Period: 1 Jan 2006 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

Intervention successes to get inspiration from: Effectiveness of selected programmes
Period: 1 Jan 2004 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition

Description
Place: 8th Nordic Nutrition Conference 2004, Tønsberg, Norge

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations

OPTIFORD: Towards a strategy for optimal vitamin D fortification
Period: 1 Jan 2004 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition
Description
Place: Nutrition and Ageing Workshop, Brussels, Belgium

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations

Effektive partnerskaber - sådan kan man få dem til at blomstre
Period: 1 Jan 2003 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition
Description
Place: Partnerskaber for sund mad, Fødevareministeriet, København, Danmark

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations

Frugt og grønt, kampagner: Frugt & Grönt och Hälsa vetenskap och hälsopåstående
Period: 1 Jan 2003 → …
Ellen Trolle (Speaker)
National Food Institute
Division of Nutrition
Description
Place: Läkaresällskapet Swedish Nutrition Foundation, Stockholm

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations

Development of a reliable method for the assessment of the diet of infants and young children
Period: 14 Nov 2002
Ellen Trolle (Speaker)
Description
Place: Symposium on Diet and Dietary Interventions in Children, Research Unit for Dietary Studies at Institute of Preventive Medicine, Copenhagen

Related external organisation

Unknown external organisation
Activity: Talks and presentations › Conference presentations

Press clippings:

Saltindholdet i brød fra danske supermarkeder
Ellen Trolle
24/11/2016
National Food Institute, Division of Risk Assessment and Nutrition

Media contribution (1)

Saltindholdet i brød fra danske supermarkeder
24/11/2016
DR Lev Nu, Web
Dorthe Kyhn
http://www.dr.dk/levnu/mad/mindre-salt-i-broedet-fra-supermarkedet
Ellen Trolle
National Food Institute, Division of Risk Assessment and Nutrition
Press / Media

Saltindholdet i brød fra danske supermarkeder
Ellen Trolle
24/11/2016
National Food Institute, Division of Risk Assessment and Nutrition

Media contribution (1)

Saltindholdet i brød fra danske supermarkeder
24/11/2016
BT, Print
Andreas Hovgård
Ellen Trolle
National Food Institute, Division of Risk Assessment and Nutrition
Press / Media

Saltindholdet i brød fra danske supermarkeder
Ellen Trolle
23/11/2016
National Food Institute, Division of Risk Assessment and Nutrition

Media contribution (1)

Saltindholdet i brød fra danske supermarkeder
23/11/2016
DR, Web
Matthias Valsgaard
Ellen Trolle
National Food Institute, Division of Risk Assessment and Nutrition
Press / Media
Kostråd
Ellen Trolle
18/09/2013
National Food Institute, Division of Nutrition

Media contribution (1)

Kostråd
18/09/2013
DR P1, Radio
Rikke Østergård
Ellen Trolle
National Food Institute, Division of Nutrition
Press / Media

Kostrådene
Ellen Trolle
08/01/2013
National Food Institute, Division of Nutrition

Media contribution (1)

Kostrådene
08/01/2013
Politiken, Print
Pernille Eckhoff
Ellen Trolle
National Food Institute, Division of Nutrition
Press / Media

Saltindtag
Ellen Trolle
17/02/2012
National Food Institute, Division of Nutrition

Media contribution (1)

Saltindtag
17/02/2012
DR, Web
Lene Kogi
Ellen Trolle
National Food Institute, Division of Nutrition
Press / Media

Saltindtag
Ellen Trolle
17/02/2012
National Food Institute, Division of Nutrition

Media contribution (1)

Saltindtag
17/02/2012
TV2 Lorry, Television
Sten Brügger
Ellen Trolle
National Food Institute, Division of Nutrition
Press / Media