Better food at work
the Nordic and Baltic experience

Project report and proceedings from Better Food at Work Conference
23rd - 25th September 2009 Tallinn, Estonia
Editors Mia Brandhøj & Bent Egberg Mikkelsen
Published by Centre for Food, People & Design
Aalborg University, 2009
Better food at work - the Nordic and Baltic experience

Project report and proceedings from Better Food at Work Conference

23rd - 25th September 2009 Tallinn, Estonia

Editors Mia Brandhøj & Bent Egberg Mikkelsen

Published by Research group for Food, People & Design

Aalborg University, 2009
Table of Content

Preface ......................................................................................................................................................................6

Introduction .............................................................................................................................................................7
  Mapping of experience ..............................................................................................................................................7
  Conference .............................................................................................................................................................7
  Conclusion ............................................................................................................................................................9

Conference proceedings ........................................................................................................................................10

Eating at Worksite ..................................................................................................................................................11
  What is the Evidence on the Effectiveness of Healthy Eating Interventions at Workplaces? .........................11
  Glorian Sorensen ................................................................................................................................................11
  Worksite Dining as a Collective Good or Individualization of Health - A Danish Perspective ....................14
  Michael Søgaard Jørgensen ...............................................................................................................................14
  Do Worksite Provided Meals Lead to Healthier Eating? A Finnish Perspective ............................................17
  Eva Roos .............................................................................................................................................................17

Company Fruit ......................................................................................................................................................18
  Healthy Eating at Work - the BAMA way ...........................................................................................................18
  Gunn Helene Arsky .............................................................................................................................................18

Food, Health & Irregular Working Hours ............................................................................................................20
  Food, Health & Shift Work: Nutrition, Shift work and Chronobiology – When to Eat? .............................20
  Maria Lennernäs ................................................................................................................................................20
  Lots of Food but Poor Meals – A Sociological Study of the Worksite as a Meal Arena ...............................23
  Maria Nyberg .....................................................................................................................................................23
  Successful Physical Activity & Nutrition Intervention at Sea .......................................................................26
  Sonja Sif Jóhannsdóttir ......................................................................................................................................26
  Effect of Diet Intervention on Mood, Driving Skills and Cardiovascular Risk Factors among Danish Truck Drivers ...........................................................................................................................................28
  Jens Steen Nielsen ..............................................................................................................................................28

Implementing healthy eating at work in practice ...............................................................................................31
  Coin Offer Meal “Diastole” .................................................................................................................................31
  Michael Allerup Nielsen ..................................................................................................................................31
New Possibilities in influencing Eating Patterns through Healthier Canteen Take Away .............................................. 33

Gitte Laub Hansen ............................................................................................................................................................ 33

Eating Habits in the Baltic States ................................................................................................................................. 35

Sirje Potisepp ................................................................................................................................................................. 35

Research on Influencing Worksite Eating ..................................................................................................................... 39

Worksite Canteen Availability and Usage among Finnish Employees ................................................................. 39

Susanna Raulio ............................................................................................................................................................... 39

Eva Roos, PhD, Docent .................................................................................................................................................. 39

Strategies for Influencing Eating Patterns through the Worksite - A Review ............................................................ 41

Signe Poulsen ................................................................................................................................................................. 41

Design Strategy for better Eating Facilities .............................................................................................................. 44

Tenna Doktor Olsen ......................................................................................................................................................... 44

Policy Initiatives, Regulations & Recommendations .................................................................................................. 48

Guidelines for the Prevention of Obesity at the Workplace ....................................................................................... 48

Dina Zota ......................................................................................................................................................................... 48

A Multisectoral Approach is the only Way in Planning and Implementing Policies and Actions towards Health .......................................................................................................................... 50

Sirje Vaask ................................................................................................................................................................. 50

Eating at worksite in the Nordic Countries – From privacy to Collectivity .............................................................. 53

Bent Egberg Mikkelsen & Mia Brandhøj ...................................................................................................................... 53

Appendix 1: Press Coverage .............................................................................................................................................. 58

Forskere vil udbrede viden om sunde spisevaner på jobbet ................................................................................... 59

Sund mad spredes mod øst ............................................................................................................................................... 60

Sund kantinedrift på danske arbejdsplasser - En god forretnings ................................................................. 61

Tasakaalustatud lõuna tagab terviseSüdamepäev toob kokku Põhja- ja Baltimaade toitumiseksperdid .... 64

Südamepäev toob kokku Põhja- ja Baltimaade toitumiseksperdid ........................................................................... 65

ОБЕД НА РАБОТЕ – ИНВЕСТИЦИЯ В ЗДОРОВЬЕ ........................................................................................................ 69

Appendix 2: Summary of Feedback on conference .................................................................................................... 70
Preface

Food, health and nutrition are topics that increasingly are put on the agenda at workplaces. Policy makers, politicians, practitioners, corporate actors and health promotion researchers point out the workplace as an arena where these issues can be shaped.

A Nordic-Baltic partnership has carried out a project on Better Food at Work – a project managed by the research group for Food, People & Design at Aalborg University in cooperation with the Technical University of Denmark, Øresund Food Network in Denmark & Sweden, and the National Institute for Health Development in Estonia. The project has received support from the Nordic Council of Ministers/The NordBalt program.

The project has mapped the experiences on food at worksites in the countries and carried out the conference ‘Better Food at Work - The Nordic Baltic Experiences’ held in Tallinn September 23rd -25th, 2009.

There was a considerable interest in the Better Food at Work conference, indicated from the number of submitted papers, as well as cross-national press coverage prior to and after the conference. Also, the interest was reflected by the sixty-five participants and speakers that represented a broad range of researchers, policy makers and practitioners, gathered from the Nordic and Baltic countries. The outcome of the conference will be made available through a special issue of the International Journal of Workplace Health Management published in June 2010, where some of the papers and conference debates will figure as the different approaches to the field and challenges when working with health and food at work.

The present publication includes a summary of project activities, the submissions from the conference and press coverage related to the conference. You can explore the website www.foodatwork.aau.dk to download the presentations from the conference.

As the leader of the project I am grateful for the work and support from a number of individuals. First of all Mia Brandhøj, Sofie Husby, Anneli Sammel, Piret Potisepp and Sirje Vaask that made the project and the conference possible through their commitment and hard work. I would also like to thank Michael Søgaard Jørgensen (Technical University of Denmark), Mie Bendtsen (Øresund Food Network), Tagli Pitsi (National Institute for Health Development, Estonia), and Morten Strunge Meyer (Danish Cancer Society) for valuable discussions in the planning process. Especially I would like to thank Monika Pearson (National Food Agency of Sweden/NordBalt program) for valuable discussion in the initial phase and the Nordic Council of Ministers/The NordBalt program, Øresund Food Network and National Institute for Health Development in Estonia for their support.

Bent Egberg Mikkelsen, Project leader
Professor - Research group for Food, People & Design
Aalborg University
Introduction

Mapping of experience
The first approach to the literature search within Better Food at Work was carried out on the fundamental basis of the knowledge and results from a previous Danish / Swedish cooperation on “Food at Work around the Clock. Work – Time – Meal”. This research is done by researchers and scientist within the field of health, nutrition, sociology and anthropology at Lund University and the Technical University of Denmark, and published in 2009 by Øresund Food Network (“Mat på arbetet dygnet runt? Mat – Tid – Arbete”). In accordance to the snow ball sampling technique the NordBalt researchers contacted some of the chapter authors, with references to additional relevant literature and researchers. One of the search criteria was to mainly include Nordic and Baltic countries and research, in either Scandinavian languages or in English. The literature search has been collected in a database covering the found literature on food and health promoting initiatives at worksites, in the Nordic and Baltic countries. A search on other initiatives is included because of multifactorial intervention practices that include not solely food based interventions; some of the interventions only include food as a secondary or sub- issue.

The project initially included a mapping of important stakeholders and literature from the Nordic and Baltic countries. A literature search was performed using a snow ball sampling technique. This technique enabled us to get in contact with important stakeholders and experts within the field of health promoting initiatives at the workplace, and at the same time identify important literature. The research was mainly focused on the Nordic countries, but included significant contributions from other countries as well.

The literature search outcome is structured in the RefWork’s software, interested parties can use the URL-link\(^1\) or contact the research group for Food, People & Design at Aalborg University to gain insight and to access the recorded literature in the shared database. Almost all references are linked to full text PDF files.

Conference
The purpose of the Better Food at Work conference was to share experiences and to get a joined understanding of the future perspectives and challenges related to health at worksites, when implementing health promotion initiatives focusing specifically on eating. The conference aimed at performing a synthesis of experiences across the Nordic and Baltic countries in order to be able to perform a literature analysis; identify evidence based studies; identify best practices; and communicate to authorities, researchers and practitioners.

Bringing the conference participants together gave rise to new and interesting perspectives on the challenges of an increased number of individuals leading an unhealthy lifestyle – individuals being at worksites, in their private spheres, and in public foodscapes. It also became clear from the presentations and the debates during the conference that the Nordic and Baltic countries have different histories and traditions regarding food at worksites and research in this area.

\(^1\) http://www.refworks.com/refshare/?site=041541163664000000/RWWS6A655060/Food%20at%20Work%20NordBalt%20program
Among the most outstanding issues from the presentations it can be mentioned, that there is evidence proving how the workplace as an arena for health promotion can have positive health impact. Effects on lifestyle are documented, in practice i.e. through healthy eating interventions among the employees. Furthermore, it seems that the traditional method with approaching the individual to work with lifestyle changes no longer is as applicable, and that there is a greater potential for making changes by focusing on socio-constructive approaches to large scale numbers of people. Related to this, the social relations and physical contexts should be taken into account in addition to nutrition and eating.

The conference worked constructively with worksites that traditionally have been difficult to implement health promotion initiatives at, due to job specific conditions. The presentations included inspiring interventions from different kinds of worksites that either had irregular working hours or mobile worksites, such as fishermen at sea; truck drivers; health-care workers, physical versus non-physical work etc. The speakers at the conference demonstrated best cases and possible strategies to promote health in different worksites settings, with both traditional and new innovative approaches, such as canteen coin offer; canteen take-away; fruit and vegetable schemes; and healthy canteen maintenance in general.

The participants discussed that a meal is more than eating, and also include experiences. From these discussions it was stressed that future implementations should try to involve considerations regarding social and physical context and that eating is a behaviour influenced by these factors.

Overall, the conference speakers and participants agreed that the process of turning research into policies and implementing health promotion at worksites in practice is dependent on a determined management and passionate practitioners to sustain the results in the long run. The outcome of the conference was most constructive and inspiring for the participants that were rather excited to discuss the presented thesis’ issues and challenges in the field of eating at worksites. And in general it became clear to the audience that a multi factorial way is important in order to promote healthy eating habits at worksites.

The speakers at the conference approached future research areas and examples of these are to gain knowledge on how changes occur by doing research on the mechanisms and processes within policies, environment and individuals. It seemed unanswered as well how the work-environment shapes the employees diet. Also development of strategies to improve social contexts for making changes seemed to be important, and should of course be studied theoretically as well as in practice. Finally, barriers and facilitators for dissemination of best practices should be explored to secure future maintenance and sustainability of the ‘healthy eating at work’ initiatives.

The feedback summary from the conference questionnaire evaluation gave the impression that the conference very much met the participants’ expectations and the majority seemed to have extended their professional network within the field of health and eating at work across the Nordic and Baltic borders.
Regarding which presentations the participants found most interesting or gave new knowledge on future challenges, the evaluation was more varied and dependent on the participant’s interests. There were different opinions on the number of presentations and professional level of the speakers, which once again underlines the broad origin of the participants.

**Conclusion**
From the conference it was obvious that collaboration across the Nordic and Baltic countries is needed and wanted. The participants expressed interest and motivation in joining forces across Nordic and Baltic borders. The future challenges lies in identifying the specific subjects for collaboration, searching for funding and placing responsibility for agreed projects.

Recently an analysis has been made on the existing knowledge on Food at Worksites in Denmark and Sweden “Mat på arbetet – dygnet runt?” This analysis is a result from cooperation between Danish and Swedish researchers at University level. Could a similar analysis be performed at a more comprehensive level across all Nordic and Baltic countries? In that case it would be important to identify specific competencies and look into the existing knowledge, experiences and best practices.

It is presumed that NordForsk will announce a call for Researcher’s Network with deadline April 2010. The previous NordForsk program allocated approximately 900,000 NOK for a three year period. It is required that there are participants from at least three Nordic countries, or alternatively two Nordic and one Baltic country. It is an obvious opportunity for the Nordic and Baltic competencies to join forces through a NordForsk Researcher’s Network on “Better Food at Work”.
Eating at Worksite

What is the Evidence on the Effectiveness of Healthy Eating Interventions at Workplaces?

Glorian Sorensen, PhD, MPH Harvard School of Public Health and the Dana-Farber Cancer Institute
Boston, Massachusetts, USA

Background
An increasing number of worksites now provide health promotion programs, including interventions for promoting healthy eating. Workplace research has documented the efficacy of these programs across a wide array of outcomes. In general, results from randomized studies of workplace health promotions have found modest yet promising effects. The purpose of this presentation is to put forward the evidence from workplace-based research on interventions to promote healthy eating at work.

Summary of the Evidence
Workplace intervention research has examined both comprehensive programs and environmental and policy approaches that aim to increase workers’ dietary patterns. Comprehensive approaches to promote healthy eating at work often rely on the social ecological framework, and target change at multiple levels of influence, from changes in individual behaviour to organizational and environmental changes. The workplace research testing this approach has shown promising results. Studies have pointed to the importance of the use of participatory strategies designed to assure that programs are responsive to workers’ needs and priorities, including through employee advisory boards and peer delivered approaches. Dietary patterns are also influenced by workers’ broader social context, including workplace and family norms, social support, and the resources available in local neighbourhoods. Recent research has explored the features of the social context most likely to influence improvement in fruit and vegetable consumption. Tailored interventions provide one promising avenue for assuring that interventions are responsive to workers’ priorities.

Environmental and policy approaches include changes in the work environment and improved organizational support. Management commitment may be demonstrated by including worker health as part of the organization’s mission statement, providing a budget and assigning staff to support the work, and engaging workers in program planning. Management support is important to reinforce norms supportive of healthful eating patterns. The evidence also indicates that important environmental influences on dietary patterns include availability of healthy food options in the workplace, portion sizes available or provided, and food costs. Some workplaces have linked their efforts to resources in the neighbourhood, such as access to neighbourhood restaurants and grocery stores.

Recent research has tested interventions aimed at changing multiple risk behaviours, including diet. Evidence points to the importance of understanding the ways in which changes in one health behaviour may support or contribute to changes in other health behaviours. Other research has indicated the importance of simultaneously addressing other workplace factors contributing to worker health, including exposure to occupational hazards.
Discussion

Future research is needed to explore further the mechanisms and processes of both organizational and individual dietary change. It will be important to identify effective ways to offer programs in a range of workplace settings – from small to large, across different industries, and in different geographic regions. Research is needed to explore the role of changes in the structure of work, including trends toward downsizing and mergers, privacy protection of health information, increasing use of technological innovations, and part-time and contractual work. Increasingly attention is being devoted to understanding effective processes and strategies for disseminating evidence-based workplace interventions. Therefore, research is needed to explore barriers to and facilitators of workplace changes as well as willingness to adopt and implement health promotion programs.

References


Worksite Dining as a Collective Good or Individualization of Health -
A Danish Perspective

Michael Søgaard Jørgensen, Associate Professor
Department of Management Engineering, Technical University of Denmark, 2800 Kgs. Lyngby
Bent Egberg Mikkelsen, PhD. Professor
Department of Development and Planning, Aalborg University, 2750 Ballerup, Denmark
Anne-Vibeke Thorsen, PhD. Student
National Food Institute, Technical University of Denmark, 2860 Søborg, Denmark

Abstract
This paper is based on a survey of Danish literature about worksite eating carried out as a part of the project ‘Food at work around the clock?’ by Lunds University and Technical University of Denmark and financed by Øresund Food Network. The focus has especially been on the relations between work and diet and the experiences with promotion of healthier eating through intervention projects at worksites.

The overall results of the survey show that there does not exist much Danish research about the influence of work and the work environment on eating habits, including worksite eating. The few analyses that have been conducted show that negative and long-term stress, where the employee lacks influence and control on his own work, may cause health problems and changes in body weight, so that slim persons become slimmer and the obese become more obese.

A small interview survey shows that the type and the organization of work influence how worksite eating is organized. Especially in the service sector, it is difficult for all employees to eat at the same time. Their eating schedule is negotiated among the employees according to the needs of the individual employee.

An area with Danish research is the influence of the worksite eating on work and work environment. The survey showed social inequalities in relation to health, like in many other countries. A national dietary survey has shown that persons with long education eat healthier and are more interested in healthy food. Research also shows a correlation between diet and other aspects of lifestyle: if a person has health dietary habits it is more likely that the person also has a high level of physical activity, does not smoke and does not have a high consumption of alcohol.

An increasing number of Danish worksites have some sort of health promotion activities, including some kind of healthier food, like providing free water, healthier meal options, bread with high fibre content, fruit supply scheme etc. A national survey of these activities is carried out bi-annually. The recent survey shows that 60% of the worksites have some variety of food supply for its employees. For example, 33% of the worksites have a food scheme like a canteen and 48% have a fruit scheme. The surveys show big inequalities with respect to

2 Corresponding author: E-mail: msj@man.dtu.dk
health promotion at the worksites in relation to branch and geographic regions. Within the finance sector, 53% of the worksites have a food supply scheme, while only 30% within the construction sector has some kind of food supply to its employees.

Big worksites are more likely to have a canteen than small worksites. A survey indicates that worksites with more than 50 employees are more likely to have a canteen. The canteens are typically small. Around 75% of the canteens have less than five employees. Of the canteens, 25% are outsourced, while 75% are run by the worksite. A recent survey shows that more and more canteens serve food from a buffet and not from a counter.

A substantial part of the Danish experience within worksite eating is based on worksite intervention projects aiming at making the food supply healthier. These interventions have achieved bigger awareness about health food and also an average increase in the consumption of fruit and vegetables. How this differs among the individual employees is unknown.

The long term embedding of these activities has up till now only been analysed to a limited extent. The analyses seem to show that employee participation in the planning and implementation of the scheme and a scheme based on voluntary initiatives make employees assess the scheme as a positive initiative. The organizational and economic conditions of the worksite seem to influence the long-term embedding of healthier eating initiatives. For instance, outsourcing of the canteen may make it difficult to sustain results obtained before the outsourcing.

The government initiatives around healthier worksite eating have, up till now, focused on developing policy documents, printed materials for inspiration, guidelines, training, and funding of intervention projects. Most government initiatives have involved a number of different stakeholders in a kind of partnership. The stakeholders include government authorities and agencies, research institutes, health organizations and trade unions. A recent initiative focuses on food and diet policies at worksites. All government worksites at the state level should, before the end of 2008, develop a food and diet policy. The experiences so far from other areas, like public green procurement, indicate that a policy in itself may not change the practice of an organization.

The experiences so far seem not to have focused on the relations between work, work environment and health. Thereby the food interventions may cause a more individualistic approach to health at worksites, compared to the more collective and interest-based approach which characterizes the safety work and the safety organization of public and private worksites. A small international study conducted in relation to the Danish and Swedish survey of food at work show some, although limited, experiences in other countries with integration of concerns about work environment as part of health promotion activities.

Future Danish activities within health promotion, including healthier worksite eating, should integrate a focus on work environment in order to combine an individualistic approach with a collective and interest-based approach to health and the role of the worksite. Work environment research indicates that more problems at
the workplace are managed within the human resource (HR) field rather than in the work environment field, which could imply a more individualistic approach to worksite health and health in general, where life style is seen as a free and individual choice.

References
Do Worksite Provided Meals Lead to Healthier Eating?
A Finnish Perspective

Eva Roos, PhD, Docent
Folkhälsan Research Center & Department of Public Health, University of Helsinki, Finland
Susanna Raulio, MSc. (Food Sc.)
The National Institute for Health and Welfare, Helsinki, Finland
Ritva Prättälä, PhD, Docent, Senior Researcher
Folkhälsan Research Center & Department of Public Health, University of Helsinki, Finland

Introduction
Eating outside of the home is increasing in the West, partly because more women are joining the workforce resulting in less time for food preparation in the home. Therefore, meals provided at worksites can be a useful tool for improving health among its employees. The objectives of this presentation are to (a) describe the use of worksite canteens and its determinants in the Finnish population; (b) illustrate the association of healthy lunch eating patterns among employees; and (c) reflect on whether worksite provided meals lead to healthier eating.

Methods
The results presented are mainly based on basic reports and published studies relating to worksite catering services conducted in Finland.

Results
Nationally representative health monitoring surveys show that the use of catering services is common in Finland. Of all employees, 30% eat from worksite canteens daily, while 30% of men and 45% of women eat packed lunches. Some evidence exists on the contribution of catering services to food habits and nutrition in the population. Cross-sectional population surveys suggest that the use of catering services is associated with more healthy food habits; those eating lunch from worksite canteens tend to make food choices closer to nutrition recommendations when compared to those not using catering services.

Discussion
Evidence exists on the contribution of catering services to healthy food habits in the Finnish population. In order to verify the role of catering services, more scientific research with prospective and intervention designs will be needed.
Company Fruit

Healthy Eating at Work - the BAMA way

Gunn Helene Arsky, Nutritionist M.Sc
BAMA JobFrukkt, Norway

Background
The intake of fruits and vegetables in Norway is less than half the recommended amount – just over 300 grams per person per day. At the same time we see an increasing tendency towards overweight and obesity in all age groups. A healthy diet as well as a focus on physical activity is important to curb this development.

BAMA is Norway’s largest fruit and vegetable importer, purveyor and wholesaler with 60% of the market share. Its vision is to make Norwegian consumers healthier by making available the best quality and freshest fruits and vegetables for a positive health impact. Hence, its focus on healthy eating in the workplace plays a central part, in achieving both its vision and goal.

Case description
BAMA has two major target areas when it comes to healthy eating at work.
The first is Jobbfrukt (Jobfruit), the result of collaboration between BAMA and a nationwide network of Norwegian companies, both private and public, employing people with various physical or mental disabilities. The companies have training programs for their employees, ensuring a meaningful workday as well as safe, hygienic and well presented products. Jobbfrukt.no distributes fruit baskets to these Norwegian companies throughout the year on a subscription basis.

The second target area is BAMA Pluss Bedrift (BAMA Plus Workplace), a part of BAMA’s Plus strategy, whose aim is to ensure healthy food choices in the sports arenas around Norway. The Pluss Bedrift concept consists of coolers and salad bars in strategic spots in office canteens and offices. For a very low cost, the salad bars ensure healthy lunch options while the coolers offer healthy snacks, smoothies, overtime meals and ready-to-heat takeaway dishes, to bring home after a long day at work; All for a very low cost. Pluss Bedrift also includes offers easy-to-do physical activities to the employees, such as morning walks followed by communal breakfast, short jogging trips and weekend trips with focus on physical activity. The program started in 2006 in BAMA. Today 40 of BAMA’s offices offer Pluss Bedrift to its employees. The concept has also been introduced, with great success, in the Norwegian Football Association’s offices in Oslo.

Aim
For both target areas the aim is to increase the intake of fruits and vegetables at work and create new and healthier eating habits which will influence employees’ food choices outside work as well.

Findings
The increased offer of healthy options is a welcome addition to the workplace. Readily available fruits and vegetables make it easier for the employees to fulfil the recommendation of eating five portions of fruits and vegetables a day. Consumption of fruit and vegetables also increases wellbeing, and findings suggest that companies offering fruits and vegetables register fewer sick absences among the employees.
Discussion

There is an increasing need for various healthy alternatives during work hours concerning both food choices and easy physical activities. BAMA offers two alternatives, and will continue to develop these in accordance with the overall health status in the Norwegian society and the needs expressed by its customers.
Food, Health & Irregular Working Hours

Food, Health & Shift Work: Nutrition, Shift work and Chronobiology – When to Eat?

Maria Lennernäs, PhD Nutrition, Professor in Food and Meal Science with Special Emphasis on Behavioural Science
Kristianstad University College, Sweden
maria.lennernas@hkr.se

Introduction
More and more businesses operate outside “standard” or daytime hours. This 24-hour society is driven by commercial competitiveness and consumer demand; and governments, too, seem to encourage flexible working policies. Non permanent daytime workers operate in process industries, transport and communication sectors, social service, bars and restaurants, public media, entertainment etc. In this abstract, the term “shift work” includes traditional shift work (alternation between morning and afternoon shifts, or between morning, evening and night shifts), irregular work hours, night work, work that occurs during early morning and/or late evening.

Health and Safety
Shift work affects social and biological rhythms. This, in turn, has an impact on social life and on timing of eating and sleeping in relation to the circadian rhythms generated from the inherent biological clock. Shift work is a behaviour associated with gastrointestinal complaints, fatigue and depression as well as impaired safety at work. It is considered a risk factor for the metabolic syndrome, including obesity, insulin resistance and altered lipid profiles and is associated with type-2-diabetes and cardiovascular disease. Shift work and fatigue probably have an impact on physical activity and energy balance. Sleep deprivation is associated with increased appetite (ghrelin increases), decreased satiety (leptin decreases), obesity and insulin resistance due to endocrine responses correlated to disrupted circadian rhythms.

Circadian Rhythms
Circadian rhythms have evolved to help all living organisms to anticipate and adapt to circadian (“about a day” or about 24-hours) seasonal, and annual variations in light, darkness, climate and temperature, availability of food etc. Human circadian rhythms are generated within the Suprachiasmatic Nucleus (SCN), or “Master Clock” in the brain. The SCN is located in the Hypothalamus, the area from which internal energy supply, hunger, thirst, libido sleep and other vital functions are controlled. Bright light is the main stimulus that “sets” the internal clock that, in the “free-running condition,” might vary between 23-28 hours. Time zone-transitions, shift work, times for eating and sleep as well as physical exercise stabilize or desynchronize circadian rhythms. Food intake in human beings is regulated by energy balance and modified by circadian rhythms in anabolic and catabolic hormones, hunger, appetite and satiety. Eating against the clock is “confusing” for the brain and leads to a conflicting situation since human beings are diurnal (day active) and thus constituted for nocturnal sleep, restoration and fasting.
Circadian rhythms are influenced by ageing (younger are more evening oriented, elderly more morning oriented), environmental and genetic factors. Thus, individuals range from being larks (best performance in early morning) to owls (evening types).

**Assessing Eating Behaviour of Shift Workers**
A comprehensive knowledge about eating behaviour in shift workers includes data collection about their average intake (across a work cycle) of energy and nutrients. Furthermore, analysis needs to take into account the temporal distribution of energy and nutrients and the frequency and quality of eating events. Between groups comparisons are done between workers having permanent morning-, afternoon- or night shifts, or rotating shift-schedules, and their daytime controls. Within group comparisons are done between 24 hour working days (including various shifts) and days off, or between time segments, to evaluate how much of total intakes are being consumed during each work shift respectively. Thus, to design a dietary survey in shift workers is complicated. As a screening method, anthropometric measurements combined with a cost-effective method for food-based classification of eating events based on what was consumed (not amounts) and time of day is recommended.

**Eating Habits of Shift Workers**
Past research shows that it is the timing of the meals, rather than the energy intake and macronutrient composition, that is affected by shift work. Observational and experimental studies show an association between nocturnal eating and metabolic abnormalities. Subjects adopt different coping strategies to night work ranging between fasting and eating energy dense snacks or sweets to fight tiredness. Chrono-biological, social and environmental factors affect eating in shift workers. Psychobiological studies have shown that night eating improves acute well being but impairs health in the long run. Nocturnal intake of carbohydrates is associated with a higher degree of sleepiness.

**Summary and Future Research**
Intervention studies are needed to find a successful solution to lower social costs and to improve health, safety and well being in shift workers. Such interventions must include recommendations with regard to meal frequency, meal timing and meal composition. To be successful, it is necessary to take into account individual (circadian rhythms, food preferences), structural (work schedule, food availability, meal pauses) and social (family, networks) barriers.

**References**
1435-1439.
of energy balance." Neuroscience and Biobehavioral Reviews 26: 485-498.
Lots of Food but Poor Meals – A Sociological Study of the Worksite as a Meal Arena

Maria Nyberg, PhD
Department of Sociology, Lund University, Sweden

Introduction
Many people spend hours in their workplace every week, which makes it not only a work place but also a place for social interaction, eating and drinking. Food and drink play a central role in providing nutrition and energy so that individuals can continue working, and also help to create a welcome break in the daily routine. Therefore, food and drink also have an important social dimension in the workplace, and mark a division between work-time and break-time. Although many people eat and drink at work on a regular basis, studies focusing on the meal as a separate concept from the food eaten, are rare in a workplace context. The meal is understood to be something more than just the food consumed. Previous research into meals from a social science perspective have primarily focused on the home and the family in defining, analysing and understanding the meal, its social settings and relations (see e.g. Bugge & Almås 2006; DeVault 1991; Douglas 1975; Ekström 1990). At work, the meal is surrounded by other circumstances when it comes to time, place and social relations, as well as the food itself, which are all important aspects in understanding the conditions for the meal.

In today’s society an increasing number of people in different occupational groups are working irregular hours, creating conditions for meals compared with those only working during the day. It is no longer only within traditional industrial shift-work that people have irregular working hours or where work is scheduled during evenings and nights. An increasing number of people within the service and transport sectors are also working both during the day, evenings and nights. Bus-drivers (Lindén et al. 2005) and lorry-drivers (Wirfält 1997) and staff in supermarkets and boutiques are examples of these round-the-clock employees. Hospitals are another example of non-stop workplaces. The objective of this dissertation study was to increase the understanding for the conditions for meals at work (see Nyberg 2009). The impact of the work organization and the structure of time, as well as how social relations are handled and food supply taken care of, are all important aspects to acknowledge in understanding the conditions for meals at work. A previous study, where a residential home for care of the elderly and a bus company participated, also have contributed important insights in trying to understand food habits at work (Lindén et al. 2005). This has been important and significant knowledge in continuing the study of how people reason and value food and meals at their workplace. To achieve this study’s objective, different meal actors in the workplaces were of interest, consisting of the employees, management and representatives for the food provision system in the workplaces, and how they reasoned about, communicated around and valued food and meals in their workplace.
Methods
The methods for gathering empirical material for the analysis were participant observations, semi-structured interviews and a questionnaire at one industrial company consisting of two production units that produced components for medical technology, and two wards in a public hospital. In order to get an overview of the physical and social structure of the respective workplaces, a number of observations were initially conducted. By obtaining information about working tasks, routines and time schedules, as well as about food habits at work and at home, the subsequent interviews were facilitated. A total number of 29 male and female employees from different occupational groups, working conditions and ethnic backgrounds were interviewed. In addition to these methods, a questionnaire was used in order to obtain an overview of the workplaces as a whole. Additionally, twelve interviews were also conducted with representatives from the management and the food suppliers in the workplaces.

Results
The study raises important questions about the preconditions for having meals at work, where the importance for companies to increase productivity, save money and rationalise time often leaves no considerations for the meal and its “ingredients”. The results of the study can be summarized in the following statements: The meal should take no time, the meal should take no place and the meal should cost no money. The meal is often rationalized away and as time mainly is valued as a quantitative instrument by the management, the subjective dimension of time, as an important aspect of the meal experience, is not noticed. The time ingredient of the meal is central, as is the importance of the room (see e.g. King et al. 2004, 2007; Meiselman 2000) and the place for the meal. In this study it became obvious that the place for having a meal among the employees was not always prioritised by the management. Many workplaces only have minor rooms for the employees to eat their food brought from home or bought outside the workplace. Furthermore, the often crowded staff rooms at the hospital wards in the study impacted not only what was eaten, for example cold food instead of hot, but also the duration of the break and how the food was experienced. The idea that the meal should cost no money was expressed by the management and the food supply actors in the study, as well as by many of the employees. Having a staff restaurant of their own, with a variety of dishes and extended opening hours that fits different working hours, may be considered unprofitable and expensive for the workplace management. Due to organisational- and time restrictions, the lack of space to eat, but also critical opinions about the food being served, many employees were not interested in spending a lot of money on the food eaten at work. Especially for the women, the family and the meals eaten at home were also important in understanding the value of the meal at work.

Discussion
The meal as defined and discussed in this study is vulnerable when considered in a working context and in relation to how different actors reason about and value food, as well as time and space for the meal to take place. Due to health considerations it is essential to consider these questions in today’s working life. What will be the consequences when the workplaces only offer people the possibility to eat, and where the meal and its important “ingredients” are rationalized away, or when it is only possible for a few to actually have meals at work that not only taste good but are also allowed to take time and be enjoyed in a comfortable atmosphere
together with other people? In focusing on health promotion at workplaces, the importance of the meal has seldom been acknowledged in Sweden. The study highlights the importance of including the meal and its ingredients at workplaces in order to improve health among different occupational groups as well as among people working both regular and irregular working hours. The meal is something we eat, we experience, we prioritise and value, create in a social context and give time and space. According to this wide definition, the meal may be achieved at work, but the way the work is organised, time is planned, health is considered, food is reasoned about and social relations are valued at work as well as at home, are important in understanding the conditions for the meal and its limitations at work.

References
Successful Physical Activity & Nutrition Intervention at Sea

Sonja Sif Jóhannsdóttir, Master in Health and Physical Activity,
Anna Sigriður Ólafsdóttir & Erlingur Johannsson.
Centre for Research in Sport and Health Sciences, School of Education
University of Iceland, Iceland.

Introduction
Icelandic sea crew members working on fish-processing trawlers lead a potentially unhealthy lifestyle. Staying at sea for a month at time gives few opportunities for regular exercise, and being sleep-deprived and away from home easily leads to limited and unhealthy dietary choices.

Objectives
In this study, a physical activity and nutrition intervention was undertaken to increase awareness and facilitate a healthier lifestyle among sea crew members.

Methods
Body composition, health parameters, fitness, physical activity level and food choices were investigated among 62 sea crew members (intervention group (IG), n=31; control group (CG), n=31) before and after a six-months lifestyle intervention. The main focus in the IG was to increase physical activity and promote healthier food choices. Physical fitness was estimated by a maximal cycle ergometer test and physical activity was measured by questionnaires (min/week). Questionnaires were used to assess food choices and health related quality of life. To aid better food choices the cooks were assisted in changing cooking methods and increasing the variety of food available at sea.

Results
The average age of the crew members was 41.7±10.8 years and there was no age difference between the groups. After the intervention period (IP) the average bodyweight decreased by 3.5±2.7 kg in IG, compared to the CG that gained weight by 0.6±1.8 kg (p<0.001). The waist circumference and body fat percentage decreased significantly in the IG (-4.1±2.5 cm, p=0.001 and -1.8%, p=0.001 respectively). The IG increased their physical activity level by 233%, but in the CG only by 13.5%. The physical fitness increased by 14.3% in the IG, but no difference was obtained in the CG after the IP (p<0.001) (Table 1). HDL-cholesterol increased by 11.4% in the IG (p<0.001) after IP, compared with a 6.1% decrease in the CG (p<0.05). There were no significant changes in LDL-cholesterol, but triglycerides decreased by 18.6% (p<0.01) in the IG (Table 2). IG also lowered their diastolic blood pressure by 3.3 mmHg (p<0.05). No positive changes in blood parameters or blood pressure occurred in the CG after IP (Table 2). Positive changes in the factors associated with health related quality of life were only found in the IG after the IP. These were decreased depression, decreased pain and increased fitness by self-evaluation (p<0.05). Positive changes in food choice were only noticable in the IG. After the IP they ate fresh vegetables and unsweetened breakfast cereals more often and less frequently consumed sweet cakes and biscuits. They also less frequently drank carbonated beverages and fruit drinks with added sugar (p<0.05).
Table 1. Characteristics of the study subjects, weight, BMI, waist circumference (WC), fatness, fitness and physical activity (PA).

<table>
<thead>
<tr>
<th></th>
<th>All (n=60)</th>
<th>IG (n=31)</th>
<th>CG (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test I</td>
<td>Test II</td>
<td>Test I</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>87.8 (17.4)</td>
<td>85.9 (17.3)*</td>
<td>89.0 (11.6)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>27.2 (5.3)</td>
<td>26.8 (5.2)#</td>
<td>27.1 (3.1)</td>
</tr>
<tr>
<td>WC (cm)</td>
<td>96.3 (13.2)</td>
<td>94.8 (13.0)#</td>
<td>97.3 (8.9)</td>
</tr>
<tr>
<td>Fitness (w/kg)</td>
<td>2.61 (0.5)</td>
<td>2.79 (0.6)#</td>
<td>2.58 (0.4)</td>
</tr>
<tr>
<td>PA (min/week)</td>
<td>56.3 (69.4)</td>
<td>109.4 (85.5)</td>
<td>38.6 (43.6)</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>23.8 (7.6)</td>
<td>22.8 (7.1)#</td>
<td>24.6 (5.6)</td>
</tr>
</tbody>
</table>

Mean ± SD, range. *p<0.05  #p<0.01

Table 2. Blood parameters.

<table>
<thead>
<tr>
<th></th>
<th>ALL (n=60)</th>
<th>IG (n=31)</th>
<th>CG (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test I</td>
<td>Test II</td>
<td>Test I</td>
</tr>
<tr>
<td>Cholesterol (mmol/L)</td>
<td>5.04 (0.8)</td>
<td>4.99 (0.7)</td>
<td>5.10 (5.0)</td>
</tr>
<tr>
<td>HDL (mmol/L)</td>
<td>1.44 (0.2)</td>
<td>1.48 (0.4)</td>
<td>1.40 (0.2)</td>
</tr>
<tr>
<td>LDL (mmol/L)</td>
<td>3.12 (0.9)</td>
<td>3.06 (0.8)</td>
<td>3.17 (0.8)</td>
</tr>
<tr>
<td>Triglyceride (mmol/L)</td>
<td>1.06 (0.4)</td>
<td>1.01 (0.5)</td>
<td>1.13 (0.4)</td>
</tr>
<tr>
<td>Glucose (mmol/L)</td>
<td>5.15 (0.4)</td>
<td>5.07 (0.4)</td>
<td>5.14 (0.3)</td>
</tr>
</tbody>
</table>

Mean ± SD, range. *p<0.05  #p<0.01

Conclusion

The primary aim of the intervention was to improve the overall lifestyle of the sea crew members by emphasizing the importance of physical activity and healthy diet. The results show the advantage of a workplace intervention among men working and living under potentially unhealthy conditions. Healthier lifestyles leading to better health among sea crew members is valuable for their personal well-being and is a good investment for their employers.
Effect of Diet Intervention on Mood, Driving Skills and Cardiovascular Risk Factors among Danish Truck Drivers

Jens Steen Nielsen, PhD
Institute of Sports Science and Clinical Biomechanics, University of Southern Denmark, Odense
Mette-Marie Linding
Be-you healthcare A/S, Grindsted, Denmark

Background
The number of fatal accidents involving trucks are twofold per driven km when compared with small cars (1). Furthermore, 50 % of all accidents occur on freeways and highways (1). While technical defects may cause accidents, most accidents are due to factors such as stress, fatigue, and health problems among truck drivers (5). It is generally accepted that administration of few meals with high carbohydrate content elicit fatigue and reduces the general health status, and that these factors are improved by increasing the meal frequency and reducing the amount of carbohydrates consumed (4).

Truck drivers are known to have irregular meal rhythms and to consume a high amount of carbohydrates (2). If the driver’s meal frequency could be increased and the carbohydrate consumption reduced, it may result in lessened fatigue and improve the health status. Which in turn, would decrease the number of accidents. However, the effect of increased meal frequency on driving skills is unknown.

Aim
The aim of the present study is to investigate the effect of increased meal frequency on the general health status and driving skills among truck drivers.

Hypothesis
The hypothesis is that increased meal frequency will improve mental and physical conditions which, in turn, would improve driving skills leading to decreased risk and number of accidents.

Methods
Fifteen skilled truck drivers were informed of the project and the risks involved before obtaining their written informed consent to participate. All procedures were carried out according to Danish law. Subjects were randomly assigned to either a diet intervention (DI, n=10) or a control group (CG, n=5). The DI group were provided with five meals a day over a twelve days period. The diet administered to the DI group was balanced for fat, protein and carbohydrate according to national Danish guidelines, and energy was adjusted to individual needs within the first two days. All in the DI group were given a 45-min. instruction on what and where to eat and a 24-h food hotline was open for calls. The CG were left to their normal habits and given neither instructions nor hotline access. Both groups were tested and retested prior and post the twelve days. During each test, blood was sampled and used to determine the lipid profile, glycogen content, and glycosylated hemoglobin (HbA1c). Additionally, Profile Of Mood States (POMS) were measured (3). Driving skills were assessed using a validated standardized driving situation in an advanced truck simulator that all drivers were familiarized with. The finger reaction time was measured using a Good Response from Metitur (Findland).
All parameters were measured in a fast (12 h) and feed state (1.5 h after a standardized meal), except HbA1c that was measured in the fast state.

**Results**

The average blood glucose in both the DI group and CG was $4.9 \pm 0.1$ (mean ± SEM) in the fast state, which value increased by $7 \pm 3 \%$ 1.5 h after a standardized meal. The meal did not affect driving skills when measured in the *truck simulator* and finger reaction time when measured using the *Good Response* timer.

Following the twelve days of diet intervention weight, body fat content, and BMI significantly reduced in the DI group, while only a small reduction in body fat content was observed in the CG. Furthermore, the blood glucose concentration over time measured as the amount of HbA1c was significantly reduced in the DI group whereas it remained unchanged in the CG (Fig. 1).

The diet intervention significantly shifted the blood lipid profile to a more healthy direction as indicated by the significant reduction in the total and LDL cholesterol in the blood. The summed T-score from the POMS test showed that subjects in the DI group felt less “anger”, while the subjects in the CG felt more “confused” following the twelve days of intervention. Furthermore, following intervention, the speed of finger moving, evaluated using the *Good Response* machine was significantly reduced in the DI group when compared to prior intervention but was unchanged in the CG. Most interestingly, driving skills improved following diet intervention. The improved driving skills were seen as a faster response and reduced total reaction time in the DI group post vs. prior intervention, whereas it was unchanged in the CG (Fig. 2). Moreover, the total reaction time was significantly lower in the DI group than in the CG when compared post the intervention period.

**Discussion and conclusion**

The main finding in the present study is that twelve days with regular healthy meals improves reaction time and driving skill among skilled truck drivers when compared to matched controls. This is likely to have a huge impact on a driver’s ability to avoid accidents during working hours, especially in the difficult post prandial period where fatigue normal occurs. In the present study the optimized meals improved the general mental and physical health status of the drivers. This is likely to reduce healthcare costs and improve quality of life for the individual driver. In conclusion the present study shows that simple diet intervention improves driving skills and the mental and physical health state of skilled truck drivers. This is likely to reduce the risk of accidents during driving.

![Figure 1. The amount of glycosylated hemoglobin (HbA1c) prior and post a 12 day period in subjects that were subjected to Diet intervention (DI) or placed in a control group (CG). *significantly different from prior p<0.05.](image1)

![Figure 2. Data from the test of driving skill showing the response distance, i.e the distance from an obstruction appears until the foot is lifted from the gas pedal. Furthermore, the movement distance, i.e. the distance from the gas pedal is lifted and until the breaks are on. Data are shown prior and post the 12 day period for the DI group and CG. * significantly different from prior test § significantly different from CG in same situation. p<0.05](image2)
References
Implementing healthy eating at work in practice

Coin Offer Meal “Diastole”

Michael Allerup Nielsen, Canteen Manager
Staff Canteen, Herlev University Hospital, Copenhagen

Background
The Herlev University Hospital (HUH), to a greater extent than previously, takes responsibility for its employees’ health when they are at work. Along with other health promotion initiatives for its employees, HUH requested the staff canteen to take more responsibility for the nutrition value of the food served, focusing on a fatE% of a maximum of 30E% and with restrictions on the availability of sugary and fatty products; in practice by taking sodas, juices, cakes and full-cream milk off the shelves. The other health promotion initiatives were the introduction of the no smoking policy, corporate fitness programmes, fruit schemes, health week etc.

The Projects Objective
To ensure that a balance nutritional meal would be available for those who patronize it, working with Bojesen ApS, HUH developed the following criteria for its staff canteen:

- Salads and sandwiches are available in several variations.
- Make available a hot meal, good quality freshly baked bread and different fruits and vegetables.
- The availability of various beverages, such as fresh cold water, organic buttermilk, semi-skimmed and low-fat milk.
- The employee should be able to purchase a meal that constitutes a complete lunch, no matter how the individual assembles the items from the different groups of available food. The objective here is to have a nutritionally balanced meal without the individual having to spend too much worrying about it.
- Taste is an important factor to eat more fresh vegetables with homemade dressings. Therefore, the dressings should consist of ingredients put together with quality and creativity in mind.
- A quick lunch to ensure that employees do not waste time in queues. Instead get a quick service and enjoy their lunch break.
- Coin offer - the success of which depends on pricing. The employees should be able to purchase a complete and healthy lunch for 20DKR (Danish coin ≈ 2.6 €).
- Attention should be paid to the hygienic aspect of the food by restricting the number who comes into contact with a food item. Over the counter food to be packed in environmentally friendly wrapping that is easy to eat from directly.
- Nutritional labeling is easy to understand, making it easy to choose.

In general, the objective is that the workplace be able to serve its employees healthy tasty meals that are hygienically prepared and cooked with fresh ingredients.
Results

• More satisfied customers based on oral feedback. *(A Satisfaction Survey will be carried through in October 2009)*
• Positive dialogue with the employees, with feedback and constructive criticism;
• Raised customer base by 80%;
• More care assistants patronizing the staff canteen;
• Higher professional competency among the canteen staff, along with the use of fresh ingredients and focus on taste;
• Less usage of tableware resulting in less washing; and
• Environmentally friendly packaging.
New Possibilities in influencing Eating Patterns through Healthier Canteen Take Away

Gitte Laub Hansen, PhD.
Department of Prevention and Documentation, Danish Cancer Society
Anne Dahl Lassen, PhD. Student
Department of Nutrition, National Food Institute, Technical University of Denmark
Sanne Poulsen & Lotte Ernst
Department of Prevention and Documentation, Danish Cancer Society

Introduction
This strategic research network focuses on a new, innovative and health promoting workers’ benefit called ‘Canteen take away’. Canteen take away is ready-to-heat-meals and meal-elements freshly prepared in workplace canteens for the employees to take home at subsidized or market prices. Canteen take away reduces the time needed for shopping, prep-work, cooking and cleaning at home and is expected to improve the nutritional quality of the diet of employees and their families.

This strategic network will conduct multi-level intervention/action research over a 3-year period. The network includes three research institutions and many relevant and powerful public, private and civil organizations. The partners will conduct this research in real life situations to provide evidence for the efficiency of the canteen take away concept. The research will be conducted in close dialogue with Danish workplaces to ensure maximum practical and strategic relevance and feedback, and to facilitate future implementation of results of the project. It is our hypothesis that health promotion activities such as Canteen take away can relatively quickly and cost-effectively lead to healthier eating habits among employees and their families, especially in lower socioeconomic groups.

The aim of this part of the study was to evaluate the impact of the canteen take away program on the dietary habits of employers.

Methods
We conducted a six week diet intervention to study the impact of Canteen take away meals on the dietary quality of a sample of employees in a Danish white collar worksite. 27 employees (14 women and 13 men) from the enterprise, ATP-huset, participated in the study. The employees participated in two 24 h recalls on days when they had their usual evening meals and on two days when they included Canteen take away. The nutritional quality of the diet was evaluated on parameters of total energy (kJ), protein (g) total fat (g), saturated fat (g), carbohydrate (g), added sugar (g) dietary fibre (g), alcohol (g), fruit and vegetables (g). The data were described with cross classification and analysed with respectively paired t-test and Wilcoxon signed rank tests.

Results
The diet of the participants contained significantly less total energy, total fat, saturated fat, carbohydrate and significantly more fruits and vegetables on days when the employers consumed Canteen take away meals compared to days, when they consumed their usual evening meals. The diet of a sub sample of the employees
with the shortest education contained significantly more fruit and vegetables on days where Canteen take away meals were included compared to when usual evening meals were included. The influence of the Canteen take away meals on the nutritional quality of the evening meals has not yet been analyzed.

This study indicates that it is possible to improve the nutritional quality of the diet of employees when they consume Canteen take away meals.

Discussion
This study was conducted in a highly motivated employer environment, with predominantly white collar workers, who pose positive attitudes towards healthy eating. The worksite has a long history of working with health promotion as well as canteen take away. Furthermore, the company aspires to be awarded for their health promoting activities.

It is interesting to investigate whether it is possible to implement Canteen take away in a blue collar worksite. This autumn we are conducting an intervention study in a private blue collar worksite in the municipality of Copenhagen. This is at a relatively small worksite with less than 200 workers working shift. We have recorded their dietary habits (24 h recalls among more than 50 employees), before the intervention in May and June and are now repeating the 24 h recall among the workers participating in the intervention. In this study, we also intend to evaluate the motives and incentives for the employees to use Canteen take away as well as their perception of the Canteen take away meals and the influence it imposes on their everyday lives in the family. Further, we will study what will ensure the success of a Canteen take away program in a blue collar worksite.
Eating Habits in the Baltic States

Sirje Potisepp – Director
Association of the Estonian Food Industry
Tagli Pitsi – Nutrition expert
National Institute for Health Development

Introduction
In 2007, at the request of the Association of the Estonian Food Industry, Faktum & Ariko conducted a survey into the eating habits in the Baltic States. The aim of this survey was to compare the general eating habits of the residents on both weekdays and weekends in the three Baltic States. The survey revealed that Estonians are the most urban (i.e. modern) consumers, since the breakfasts are more varied; significantly more fruit juice and milk is consumed; the main meal of the day is eaten outside home; a much broader selection of ingredients are used in preparing evening meals, including semi-processed and ready-to-eat meals; elderly follow nutritional recommendations and value their time; and the populations are eating more healthy, using more rapeseed and olive oil and showing a preference for fish.

Methods
The survey was conducted simultaneously in the three countries between 1 and 28 October 2007 using the telephone questionnaire method. The sample for the survey was random, with 500 (or slightly more) consumers between the ages of 15 and 74 in all three countries surveyed. Although those who took part in the survey were representatives of various nationalities, they will hereafter be referred to as Estonians, Latvians and Lithuanians. The survey was designed to identify the times at which people eat, which meal qualified as their main meal and the places they eat on weekdays and weekends; the food and drinks people primarily consume at different meal times; the food they eat as snacks between meals; and sources of information in shaping nutritional habits.

Results
The total number of people surveyed was 501 in Estonia, 507 in Latvia and 529 in Lithuania, of whom 53–54% were men and 46–47% women. Of the three age groups surveyed (15–34, 35–54 and 55–74) there were more respondents from the first two groups in all three countries: 37%, 36% and 28%, respectively, in Estonia; 38%, 35% and 28% in Latvia; and 38%, 37% and 25% in Lithuania. The majority of respondents had secondary or tertiary education or vocational secondary education. More respondents were married or in a relationship (60% in Estonia and Latvia and 58% in Lithuania) than single. Roughly half of those surveyed in all three countries were the main shoppers in their families. Similarly, approximately half of the respondents were salaried employees: primarily skilled workers, specialists, managers and personal or customer service officers. 37% of those surveyed in Estonia, 33% in Latvia and 40% in Lithuania had families including children under the age of 16.

Breakfast is eaten in all three countries in much the same way at home, although there are certain differences in people’s choice of food. The breakfasts that Estonians eat are somewhat more varied than those of their
neighbours. 73% of Estonians, 70% of Latvians and 73% of Lithuanians eat breakfast before 10.00 am on working days.
The main meal of the day in all three countries is taken between 12.00 pm and 2.00 pm on working days, although Estonians and Latvians also tend to have main meals between 6.00 pm and 8.00 pm, especially those with children. The majority of respondents in all countries tend to eat between 6.00 pm and 8.00 pm on weekends and days off, although lunch remains the main meal of the day and is usually eaten between 12.00 pm and 4.00 pm.

The biggest differences in the main meal on working days emerge in the choice of location: 44% of Estonians eat their main meal at home, while 36% eat theirs at their work place or school, and 10% eat food they have taken with them from home. The same figures for Latvia are 47%, 19% and 21% and for Lithuania 61%, 8% and 24%. On the other hand, Estonians tend to eat out on weekends and days off less frequently than Latvians and Lithuanians.

The most common component of the main meal in all three countries is meat (89% in Estonia, 80% in Latvia and 87% in Lithuania), while 64% of Estonians, 36% of Latvians and 47% of Lithuanians nominated fish as the main component. Vegetables and salad formed the most common component of the main meals of 85% of Estonians, 77% of Latvians and 71% of Lithuanians. Estonians also consume more grain products as part of their main meal than their neighbours (41% of respondents), as well as dairy products (33%), sausage products (28%) and ice cream or other dessert items (23%). However, Estonians also represented the smallest proportion of consumers of fruit (23% of respondents). Estonians prefer milk or fruit juice as their drink (42% and 41% of respondents, respectively), while Latvians and Lithuanians prefer tea (37% and 47%, respectively). The proportion of beer and wine drinkers was also slightly higher among Estonians.

Water or mineral water is the most popular drink between meals in all three countries (70% of in Estonia, 61% in Latvia and 63% in Lithuania). In second place in Latvia and Lithuania is tea (32% and 33% of respondents, respectively), while in Estonia second place is given to fruit juice (31%). 22% of Estonian respondents drink tea between meals, and 16% drink coffee. Soft drinks (including sodas, colas and kvass) are only notably popular in Latvia (13% of respondents compared to just 7% in Estonia and Lithuania). At the same time, more Estonians drink milk or beer between meals (5% of respondents each).

Estonians eat a warm meal at home in the evening with slightly less frequency than Latvians or Lithuanians. 61% of Estonians, 73% of Latvians and 71% of Lithuanians eat a warm meal at home in the evening every day.

The most important factors in what people make for their warm meals in all three countries were personal taste preferences and what is healthy. The third most important factor for Estonians and Lithuanians was the speed at which the meal can be prepared, while for Latvians the third most important aspect is the quality of the food. Compared to their neighbours, Estonians also place greater emphasis on variety.

Estonia is characterised by the fact that it is the country in which the fewest people snack between meals.
Discussion

The proportion of breakfast eaters among Estonians is comparable to the figures obtained in the course of the 2008 Health Behaviour among Estonian Adult Population (HBEAP) survey, which showed that 75.9% of respondents almost always eat breakfast and that just 8.6% of respondents never do. Comparing the foods eaten for breakfast, Estonians prefer black bread, sausage products and ham and white bread, and porridge is also popular. Latvians, on the other hand, prefer to put cheese and spreads on their bread in place of meat, while cheese curd products are eaten in Latvia more than in the other two countries. Lithuanians also prefer cheeses and spreads, but they favour white bread over black bread. The most popular drinks are coffee and tea, with Estonians drinking more coffee and Lithuanians drinking more tea. In terms of other drinks, Estonians consume more fruit juice and milk than their neighbours.

Comparing the places in which people eat their main meal on weekdays, it can be seen that Estonians are much more urbanised than their neighbours, eating outside of the home more, while Lithuanians tend to eat at home the most. It can also be seen from the people’s choice of food that a lot of meat is eaten in all three countries. The survey shows that a lot of fish is also consumed, as is partially confirmed by the HBEAP, although the Health Behaviour in School-aged Children (HBSC) study conducted among students revealed that as much as 54.7% of students eat fish less than once a week or do not eat fish at all. According to the HBEAP, around half of all Estonians eat fish once or twice a week (51.1% of respondents), while around a quarter do not eat fish at all (24.9%).

Although this survey has shown that quite a lot of vegetables are consumed, other studies have confirmed that the majority of Estonians do not eat the recommended five daily portions of fruit and vegetables. The results of the HBSC survey of Estonian school children between the ages of 11 and 15 show that only 36% of students eat fruit and vegetables every day. The majority of students eat fruit and vegetables between two and four times per week. According to the HBEAP, 38.6% of respondents eat between 200 and 399 grams of fruit per day and 36.2% of respondents eat between 200 and 399 grams of vegetables per day; less than 200 grams of fruit and vegetables is consumed by 30.6% and 37.4% of respondents each day, respectively.

The way in which Estonians prepare their evening meals differs from the way in which Latvians and Lithuanians prepare theirs: they use fewer fresh and raw ingredients and more semi-processed products, and also heat up ready-to-eat meals. Whereas in terms of such products Estonians prefer meat patties and meat balls, fish products and sausage products, Lithuanians have a clear preference for sausage products. Latvians, meanwhile, eat dumplings. Frozen vegetables and pre-prepared salads are consumed slightly more by Estonians than by their neighbours.

Based on the figures obtained in this survey, Estonian students eat fewer sweets and drink less soft drinks than their Latvian and Lithuanian counterparts. 34% of students consume such drinks and sweets on a daily basis.

Compared to their neighbours, Estonians eat less fruit and vegetables, dairy products and fish as light meals or snacks. The main snacks eaten between meals in Latvia are confectionery products, sandwiches and junk food. Dairy products, meat and fish products are the main snacks eaten between meals in Lithuania.
This survey has shown that the lunch choice made by Estonians is probably influenced by what is offered in their work places, as many Estonians eat lunch outside of the home. By increasing the amount of fruit and vegetables and fish offered in eateries it may be possible to persuade people to consume them more. Sufficient consumption of both food groups is important for the prevention of cardiovascular diseases. Unfortunately, Estonia is at the forefront of the occurrence of the latter.

References
Research on Influencing Worksite Eating

Worksite Canteen Availability and Usage among Finnish Employees

Susanna Raulio, MSc. (Food Sc.)
The National Institute for Health and Welfare, Helsinki, Finland
Eva Roos, PhD, Docent
Folkhälsan Research Center & Department of Public Health, University of Helsinki, Finland
Ritva Prättälä, PhD, Docent, Senior Researcher
Folkhälsan Research Center & Department of Public Health, University of Helsinki, Finland

Introduction
In Finland, lunch is the most important meal of the day, both as a main energy source and as the most frequently eaten meal by the population [1, 2]. On workdays lunch is mainly eaten from worksite canteens [2-4] or, especially among women, as a packed meal in the workplace’s break rooms [2, 5]. Worksite canteens could be a useful setting for improving employees’ diets by offering servings that are balanced according to dietary guidelines [6]; moreover, food provided at worksite canteens could serve as a model for an optimal diet [7]. Well-planned catering services at workplaces could therefore have a major effect on the nutrition and well-being of its employees as well as on public health [8].

Our aim was to study the availability of canteens according to employee’s socio-demographic factors and characteristics of her/his workplace. A further aim was to study the association between socio-economic factors and use of worksite canteens among those who have the option to use a canteen.

Methods
The study material was the data of the Health Behaviour and Health among Finnish Adult Population survey [9]. This data have been collected, annually, since 1978 by the National Institute for Health and Welfare (formerly KTL). The annual sample size of the study has been 5,000 and the response rate has varied from 60% to 86%. In this study we used data from 2005-2007, and employed Finns, aged 25 to 64 years, from all possible types of workplaces (except for farmers). Altogether 2659 men and 2926 women were included in the analysis. Sociodemographic and work-related differences on the availability of worksite canteens, canteen usage, and in the use of packed lunches were analyzed by logistic regression models. All models were fitted separately to males and females, since it has been observed that practices and attitudes toward food are gender specific [10, 11]. The overall effect with age was added first, followed by education, place of residence, marital status, number of children, socioeconomic status, size of the workplace, and the degree of physical burden of the respondent’s job. Results of the model were adjusted only for age and ‘fully’ adjusted models are presented in odds ratios (OR) and 95% confidence intervals (CI). All analyses were carried out in a cross-sectional design.

Results
Worksite canteens are mostly available to well-educated white-collar workers in large workplaces in the capital area. The most unsatisfactory situation is among men working physically demanding jobs in small
workplaces and private enterprises. However, even when there is a canteen, less-educated female unskilled blue-collar workers eat packed lunches instead of eating from the canteen.

Discussion
There is an obvious lack of worksite canteens among less-educated male workers who are in physically demanding jobs. These men are typically construction workers or lorry drivers who have mobile work and tight schedules. Eating at canteen is not an option for them and they mostly eating packed lunches during working hours [12, 13]. Efforts should be made to improve the possibilities for them to have lunch from canteens or restaurants offering healthy, nutritious lunches among these employees.

Also barriers for canteen use should be studied among those female workers who have opportunity to use canteen, but still doesn’t do so. Price of the food has earlier been mentioned as a reason to eat packed lunches instead of using canteen [14].

To improve the nutrition of these two groups, attention should be paid to the nutritional quality of the packed lunches eaten at work.

References
Strategies for Influencing Eating Patterns through the Worksite - A Review

Signe Poulsen, PhD student
DTU Management Engineering, Technical University of Denmark

Introduction
During the past 10-20 years there has been an increase in interventions related to health at worksites (Sorensen, Linnan & Hunt 2004). The workplace, as a setting, is believed to be an important area to include in health promotion since most adults spend a significant amount of time in the workplace every day. An ongoing research project in Denmark uses the worksite setting to promote healthy eating to its employees and their families. The Canteen Take Away (CTA) project involves companies that sell healthy takeaway food to their employees, with the intention that they bring it home to their families. Some of the characteristics of the CTA project are that it involves the family and it is an attempt to comply with the busy schedules of the employees. The aim of this review is to make an explorative review and to investigate whether there have been other projects like the CTA project. Further, it researches the field of healthy eating initiatives to establish potential pitfalls and advantages of the different types of initiatives.

Methods
An online literature search of different relevant databases was conducted. Primary databases used were Web of Science and DADS (Digital Article Database Service). A search strategy with the following words was set up before the search was performed. Some of the keywords in the search strategy were: worksite, workplace and healthy eating (table 1).

From reading the title and the abstract of the articles it was assessed whether they were relevant with regard to the initial scope. A snowball sampling was used to ensure that as many relevant articles as possible were included. The references from the selected studies were screened for other relevant studies.

The main focus was healthy eating initiatives. To get as many different aspects of this area as possible, it was decided to include as many different approaches as possible. To be included were articles and reviews concerning fruit and vegetable consumption initiatives, worksite health promotion programs and change of food choice.

Results
In this review it has not been possible to identify health initiatives which are comparable to the CTA project. There are several aspects which seem to be of great importance when establishing healthy eating initiatives. These are: participation, organizational support, the social context, the influence of peers, different worksite characteristics and environmental changes.
The use of employee participation both in the planning of the intervention and during the intervention can be beneficial; this was found both in a fruit and vegetable intervention (Sorensen, Linnan & Hunt 2004) and at blue-collar worksites (Lassen et al. 2007).

It is stated that organizational support influences the success of interventions, especially when the interventions are fairly comprehensive (Sorensen, Linnan & Hunt 2004). Another aspect which is highly relevant is the worksite characteristics. It is found that at blue collar worksites, factors such as size of the worksite and whether there is a cafeteria at the worksite plays a role in interventions (Lassen et al. 2007). An additional characteristic mentioned is the organizational structure which is found to influence workplace health promotion (Harden et al. 1999). Sorensen and colleagues suggest that future programs take the development of worksites into consideration. Several people do not go to the office every day, e.g. sales personnel, and they should also be included in healthy eating initiatives (Sorensen, Linnan & Hunt 2004).

The social context includes factors from inside the workplace and outside the worksite. These factors are the local society and the employees’ families, which seem to have a great influence (Sorensen, Linnan & Hunt 2004). Furthermore, the use of peers in nutrition education at worksites has not been thoroughly researched (Buttriss et al. 2004). One study has shown an increase in fruit and vegetable consumption as a result of peer-led nutrition education amongst lower socio-economic employees in the US.

A recent review of health promotion schemes at worksites shows that changes in the worksite environment are not often used (Engbers et al. 2005). Though a number of worksites that have used changes in the worksite environment are limited, it would suggest that it was not possible to make conclusions with regard to how modifications in the environment effect healthy eating. Engbers and colleagues found that using i.e. food labelling and placement of food has an effect on the diet.

**Discussion**

A limitation to this review is the literature search. Since it was only performed in English it is possible that the search did not include all relevant publications. There could be relevant material written in other languages which were not found. Furthermore, the search was mainly focused on scientific articles because of the choice of databases; this could have excluded some relevant grey literature. This could be significant because it was not possible to find publications about research projects similar to the CTA project.

Given that it was not possible to find results from intervention studies comparable to the CTA project, it could also imply that the CTA project is a new way of thinking interventions. When establishing a CTA scheme it is not only the employees who are targeted but also the employees’ families who are affected by the initiative. The integration of the family in this complies with the importance of including the families in interventions, as found in the review. Through the review it is clear that there is a connection between food and health aspects at the worksites, though it has not been possible to find initiatives that also include the aspect of work into the intervention.
This could partly be due to limitations in the literature search or it could be that this aspect is yet to be included in healthy eating initiatives at worksites. One study showed that combining health promotion with occupational health and safety initiatives has a greater effect compared to health promotion initiatives (Hunt et al. 2005). This is presumably because the OHS hazards are regarded as more serious by the employees and that this is an area in which the management is more involved.

References
Design Strategy for better Eating Facilities

On-going research on the importance of design in meal experiences

Tenna Doktor Olsen, PhD student
Department of Architecture & Design, Aalborg University

Poul Henning Kirkegaard, PhD, Associate Professor
Department of Civil Engineering, Aalborg University

Anna Marie Fisker, PhD, Associate Professor
Department of Architecture & Design, Aalborg University

Introduction
The workplace plays a great part in the consumption of daily meals among adults, and it is commonly known that better food and intentional awareness on the wellbeing of employees can improve their efficiency and quality of work effort. Catering services and kitchen industries delivering daily meals for employees, as well as workplaces wishing to take on an increasing health responsibility, are therefore becoming extremely interested in food- and health related research. Most contemporary research on improved food at workplaces, however, often specify only the direct importance of exercise, easy access to fruits and vegetables, as well as proper amounts of healthy foods during meals. [5] The same research rarely discusses the significance of spatial settings and aesthetic environments encompassing the consumption of meals. Nor does it consider the design, brand or experience related impacts, on food.

A study of the contemporary research on meal science revealed a common lack of interest in design and experience related aspects of eating foods and their inherited sense of wellbeing. Existing literature and research in this area is furthermore full of contrasting theories, myths and contradictions, and lacks a thorough understanding of the interplay between food science, consumer experiences and integrated design. [1] This, despite researchers like Meiselman, Wansink and Gustafsson, who have for years implied the perceptive importance of physical environments surrounding meals. [2-4] This poster presents the research carried out with the master thesis; “Millennium Triclinium – Staging Figgjo Meal Experiences”, and initiates a theoretical discussion on how design and food are related. As well as presenting the specific proposal for a design strategy to actively improve wellbeing among employees, by means of designing better settings around meal experiences at workplaces.

Methods
The research is based on a theoretical study taking its point of departure in an interdisciplinary approach combining the evidence based food- and consumer science of Meiselman with phenomenological and semiotic theories on perception and language of space experienced through bodily encounters and form as signs, developed by Merleau-Ponty, Eco and Barthes. [6-9] With this, it was investigated how spatial settings impact on public restaurant meals, and discussed how design could be used to stage future meal experiences. Furthermore, a general holistic approach was chosen, unfolding cultural, sociological and aesthetic impacts of
architectural design on meal experiences through an elaborate study on Roman historical settings’ staging of meal experiences, by significant use of interior design and performative presentations of food.

**Results**
The study revealed that, in the past, grand Roman banquets utilized the performative element of theatre to create multi-sensuous meal experiences, engaging the entire body and all its sense modalities. Held together with the theories of food and consumer science, phenomenology and semiotics, the element of eating proved to be an extended experience depending as much on visual, audio, tactile and kinetic experiences, as gustatory and olfactory stimuli, not only from the specific food items, but from the entire surroundings. Consequently, concluding that we ascribe significance to spaces and objects we encounter – whether it being buildings, tableware or food - and does so on behalf of the bodily and sensuous contact, together with our inherited social and cultural norms and values. Design- as the design of dining environments, the spatial settings, room interior, furniture, decoration, tableware and presentation of the food - is not just matters of physical form, but sensuous phenomena involving as much the engagement and understanding of society and life, as the behaviour of man. Design becomes intentional – it becomes staging, and it is in this act that design defines the frames of our lives and directly relates to our sense of being-in-the-world and our sense of wellbeing. [1] This is not something new in the perspective of phenomenology. But, in the perspective of meals at workplaces, design strategies as means of staging food become important.

Based on the understanding of design as sensuous phenomena, a specific design strategy outlining five focal design points, **Context, Narrative, Scale, Detail and Experience** and seven specific design parameters, **Movement, Touch, Scent, Sound, Sight, Taste and Surprise**, were developed as practical guiding means to architecturally enhance meal experiences when developing future eating facilities.

**Discussion**
With form as means of staging human being design becomes an essential aspect of “taste” when we evaluate the quality of meals and food at workplaces. The theoretical study proved that the sense of “self” is strengthened by design allowing us to engage fully in the mental dimensions of dreams, imagination and desire, and whereas food is a latent mean of expressing hidden dreams and desires, design relate, mediate and project those meanings directly through form. Hence, the design and form of objects communicate severe cultural and sociological meanings and thereby highly affect the expectations and levels of satisfaction from eating. [1] Design should therefore be carefully considered when dealing with food experiences in future workplaces, as possible means to improve the experience, satisfaction and wellbeing of employees.

The proposed design strategy obtain these careful considerations and utilizes the act of physical contact and the psychological- and social ability of core senses like touch, taste, vision, sound, surprise and scent to establish mutual bonds between users, form and food. The orchestration of space, form and sensations through choice of materials, light, movements, elements of surprise, unexpected interaction, and mediation allow for a slow travel and exploration of taste. There is, however, a tendency towards contemporary design of eating facilities moving away from the bodily related qualities. Instead aesthetic focus has moved toward
mediated space and advanced technologies as eye-catching means to visually draw attention, lacking bodily abilities to fully address and engage sensuously with the mind. [1] It seems that some of the qualities in the performed gesamtkunstwerk applied food, art and design throughout history, and argued for with the proposed design strategy, have been lost. That gastronomy and food science, by dismissing design and neglecting the importance of architectural detailing, to some extent, has lost the sense of staging meal experiences?

Many of the aspects defining the meal experience, as well as design, are intangible phenomenological matters. Neither food science nor architectural theory today reveals the full extent of this. By working with design relative to food, I have challenged knowledge on meal experiences, combined theory and practice and let the “taste for space and form” give the necessary power to explore food. I did so with the strong persuasion of opening perhaps just a small door towards a future interest in research across design and food; but also with the strong interest in investigating how interrelated scales of design and food can be utilized to create sensuous experiences around eating, and thereby initiate social relations and wellbeing among eaters, for instance, at workplaces?

Since not every one of us is a chef, most of us, however, still arrange food on our individual plates daily; intuitively arranging the different food elements in a certain order and in relation to each other. With this act we are all designing “foodsapes” relating the comprehension of design as staging with food and tableware. Food experiences – whether in the public restaurant, at home or at work – are, as such, not just a matter of getting the appropriate amount of nutritional food and vitamins, and being satiated physiologically. But as much about social satisfaction and enrolling oneself in a community, showing or articulating a sense of belonging through food choices. Likewise design – both as a single object and as a presentation and serving of food - cannot and is not experienced as mere physical shape, but must be understood as part of a greater intention and architectural significance; expressed through the staging and articulation of spatial settings, interior and detailing around food.

The lesson to be learned from this is that form and design engages with the body. It is encountered, approached, moved through and related directly to our behaviour and being-in-the-world, creating a sense of comfort and pleasure. Through careful consideration on architectural form and choreographed movements interacting with space, furniture, tableware and food, form in general develops a primordial sense of belonging and can actively improve the sense of wellbeing – also at work.

References
3 Gustafsson IB. (2004): “Culinary arts and meal science, a new scientific research discipline”, Food Service Technology, 4, pp. 9-20

5 Ministeriet for Familie- og Forbrugeranliggender, Fagligt Fælles Forbund 3F (2005): “Idémappe, Mad på Arbejde”


Policy Initiatives, Regulations & Recommendations

Guidelines for the Prevention of Obesity at the Workplace

Dina Zota, MSc.; Karnaki, P; Veloudaki, A; Linos, A
Institute of Preventive Medicine, Environmental and Occupational Health
PROLEPSIS, Greece

Background
The Guidelines for the Prevention of Obesity at the Workplace - GPOW was a 2-year project implemented under the DG - SANCO 2003-2008 Public Health Program co-funded by the European Commission. Identifying the obesogenic nature of different workplaces and providing guidelines for the prevention of obesity at the workplace were its main goals. Overweight and obesity are increasing at an alarming rate in Europe with obesity rates ranging from 10% to 27% in men and up to 38% in women. Individual life-style choices alone cannot account for these high rates, while environments, such as the workplace through its obesogenic nature, play an important role in determining obesity outcomes. Thus, the GPOW project approached the workplace from a dual perspective: a) Workplaces present an ideal setting and provide unique opportunities to address factors which contribute to obesity, such as unhealthy diet and inadequate physical activity, because it provides access to large populations, and b) Modern workplaces have become increasingly obesogenic, because of both the changing nature of work and the working conditions, such as long working hours.

Description of policy initiative
GPOW conducted an in depth exploration of how work and work conditions influence weight outcomes among employees through original research and extensive analysis of existing data. Activities that have been evaluated and resulted in measurable success are recommended as best practices, taking into consideration the general principles of good workplace health promotion practices and offering a comprehensive account of the most successful and promising counter obesity actions. The project, hence, provides a valuable framework to stakeholders for the design and implementation of effective Workplace Health Promotion Programs (WHPP). The end product of the project is a set of evidence-based guidelines for the prevention of obesity at the workplace, which is a useful instrument for employers and employees as it:
- Outlines the most prevalent obesogenic factors per work sector affecting or leading to obesity
- Outlines the most effective interventions for the prevention of obesity at the workplace
- Provides practical recommendations on specific evidence-based strategies per workplace sector
- Outlines the stages of workplace health promotion planning, implementation and evaluation.

Expected outcome
The GPOW is expected to raise awareness on the obesogenic nature of different work sectors among all interested parties. In addition, the project and the produced guidelines are expected to have a positive impact in promoting the implementation of interventions for the prevention of obesity at the workplace. Implementing diet and physical activity interventions have the potential for improving the health status of workers, contributing to a positive and caring image of the company, improving staff morale, reducing the staff turnover and absenteeism, enhancing productivity, reducing sick leave and workers’ compensation and disability payments. By focusing on interventions in the workplace, the GPOW can influence the health
behaviour of large proportions of the population, resulting in a positive impact on the social and environmental factors that shape lifestyle choices.

**Discussion**

Modern workplaces have become increasingly obesogenic, with the following factors considered important in influencing obesity outcomes among employees: workplace environmental factors (lack of facilities for storing food and onsite healthy food options), occupational stress, long working hours, continuous sedentary work, and other environmental and organizational factors (e.g. night shifts, lack of management commitment to promoting health). The in depth evaluation of existing interventions revealed several recommendations concerning successful obesity prevention activities at the workplace, including conducting needs assessments, changing behaviors which influence weight outcomes, implementing both physical activity and nutrition methods aimed at behavioral change, including environmental and organizational change, carrying out most of the planned intervention during work hours, extending the intervention period over one year, allowing participants to self monitor their progress, emphasizing employee participation, using simple language, visuals, etc., establishing incentives for both employees and employers, and conducting continuous evaluation. A healthy, motivated and well qualified workforce is fundamental to the future social and economic wellbeing of the European Union. There is a growing body of evidence that improvements in workplace health can be key ingredients to business efficiency and competitiveness.

**References**


A Multisectoral Approach is the only Way in Planning and Implementing Policies and Actions towards Health

Sirje Vaask PhD., Anneli Sammel, Tagli Pitsi PhD.
National Institute for Health Development

Background
Cardiovascular diseases (CVD) are the main reason for early loss of work capacity (at an age below 65) and death in Estonia. Estonia is a leader in CVD mortality in Europe and the world. There has been no significant change for the better over the past 20 years. Systematic health promotion activities were launched in Estonia in 1996. Many campaigns and actions promoting the consumption of fruits and vegetables, rye bread and products with a low fat and salt content targeted at young people and adults have been carried out since then. Although a number of positive changes have occurred in the nutrition behaviour of the Estonian population over the past decade, the Estonian diet is still poorly balanced to a large extent, especially from the aspect of cardiovascular health.

Activities in the area of disease prevention and health promotion have been a central concern in Estonia over recent years and significant progress has been made in the development of public health strategies, including prevention strategies for cardiovascular disease and health, delivered at both population and individual levels.

Description of policy initiative
Specific public health programs implemented before 2005 were mainly vertical programs where the responsibility was in the hands of a single ministry. Since 2005 the planning process has changed and actions planned in the broad consultation process with different ministries and stakeholders. The result was formalized as an intersectorial public health strategy. The last two and newly developed national strategies in Estonia are the Estonian National Strategy for the Prevention of CVD 2005-2020 and the Estonian Health Strategy for 2009-2020. The first strategy focuses on five major areas: physical activity, nutrition, smoking, health care services, and dissemination of information and securing local capacity. The Estonian Health Strategy is a main national public health policy document approved in 2008 and all other public health strategies (including Estonian National Strategy for the Prevention of CVD) have been integrated into it. The Estonian Health Strategy has been divided into five wider sections: social inclusion and equal opportunities; development of health of youth and children; healthy environment; healthy lifestyle and development of healthcare systems. The Estonian Health Strategy incorporates all strategy documents in the country that deal with or affect human health in any way.

The implementation of the CVD prevention strategy is managed and coordinated by the Strategy Council set up in the Ministry of Social Affairs, which includes representatives of relevant ministries and other institutions,
including non-profit organizations and professional associations. The strategy also introduced county based health councils, which are responsible for the management and coordination of the implementation of the Strategy at local level. Since 2006, every county government has a health promotion specialists attached to it. Their responsibilities are to initiate, coordinate and evaluate local activities, and help local municipalities to plan and implement health supporting policies.

**Expected or obtained outcome**

The main purposes of the above mentioned strategies are to increase the duration of a healthy life by reducing preterm mortality and reduced occurrence of illnesses. The health strategy as a frame allows coordinating the work done in the whole country in the field of public health via one policy document, and there exists one management structure for all public health strategies. County Health Councils have been working in all county government since 2005, consisting of representatives from County offices, local governments, and stakeholder groups (educators, general practitioners etc). The work of the public health specialist and Council is funded mainly by the central government. National interventions are planned and managed by the National Institute of Health Development; local/regional actions are planned and managed by the County Councils. To plan and implement actions via County Health Councils decentralize public health activities and allow for being flexible with local needs. The expected outcome is to have a sustainable network for health promotion and thereby implement national and regional actions in close coordination.

The Network of Health Promoting Workplaces is still coordinated at a national level by the Estonian Institute for Health Development and with the cooperation of the regional councils it has great potential but is still quite weak. There have been important changes – politicians, other ministries and communities have shown initiative and interest to integrate public health actions to the political programs at national and local levels: health promotion has been moved from the traditional “health” sector. The results of the CVD Prevention Strategy have shown that there have been remarkable positive changes in CVD mortality and morbidity in Estonia, especially among the working-age population. Still, the mortality rate is considerably higher among non-Estonians, men, and people with lower education and income status (including unemployed). This calls for directing health promotion activities towards these target groups.

**Discussion**

The cooperation between County Councils and local enterprises is still not sufficient and this is an area that requires improvement on the CVD prevention strategy. Health impact assessment is not being systematically applied in Estonia today neither in the national nor at municipality level. The social determinants of health and health inequalities are still not sufficiently incorporated into planning and strategies. Since then there has been no clear evidence that the positive change in CVD mortality and morbidity in Estonia, due to the implementation of the strategy and its management structure. In the long run, such organization at the county level should become a permanent structure and form the basis for all public health programs.
References
Introduction
A large proportion of citizens in the Nordic countries do not eat in accordance with the official recommendations. Only few meet the recommended intake of fat and sugar, intake of fruits and vegetables is below recommendations, and many have a low intake of fish and whole-grain cereals (Nordic Council of Ministers, 2006). Unhealthy eating patterns contribute to the growing prevalence of obesity and other lifestyle related disorders. Where this has traditionally been considered as a private matter and the responsibility of the individual, there is now a growing awareness and increasing interest for taking collective action in the promotion of health.

As a result workplaces increasingly engage in initiatives aimed at promoting healthy lifestyle in order to protect the health of their employees and the workplace seems to emerge as a potential promising setting for health promotion (WHO, 1986). A considerable part of the adult population nowadays eats one or more of the daily meals at worksite and this seem to have been driving a new interest in the settings based approach to health promotion in particular in the Nordic countries. Studies on worksite health promotion interventions has shown a positive return on investments (Trogdon et al, 2009) and increased productivity (Mills et al, 2007).

The call for healthier eating patterns seems to be mirrored by a growing interest from workplaces in staging and shaping the eating environment at worksite. As a result food and meals at work seems to have moved to the front stage in the modern workplace and this interest is reflected in interest from authorities and health promoting NGO’s. Food at Work has become an issue and as such it has become an object of governance and despite cultural differences this governance seems to have interesting similarities in the Nordic countries. The current paper forms a part of the project Better food work – Nordic and Baltic experiences that have been initiated by Nordic Council of Ministers and aims at giving an overview of the emerging issue of food at work in a Nordic context.

Purpose
The purpose of this paper is to give an account on the way that food at work over the past decades has become an issue and as such the object of governance in the Nordic countries. Governance in this context is as the actions taken by a broad range of stakeholders involved in the field and include among others workplaces, NGO’s, public authorities and research institutions.

Method
The existing literature on research, practice and policies on the topic of eating at worksite in the Nordic Countries has been reviewed. The main part of the literature originates from Denmark and Sweden and was
identified in the Øresund Food Network project on food at work and has been published in the knowledge survey publication ‘Mat på arbetet dygnet runt? Mat – Tid - Arbete’, (Food at work around the clock. Work – time – meal). Reports on eating at worksite from the other Nordic countries as well as from the Baltic countries are infrequent. As a starting point a search for literature was performed regarding technical and scientific literature. The literature was identified through a modified snowball sampling technique. In the snowball sampling technique knowledgeable study subjects are contacted and these in turn recruit future subjects from among their network. Through this technique the subjects identified evidence on projects, grey literature and policy initiatives that could inform this paper.

**Origin of worksite eating**

The increased focus on eating at worksite was originally a reaction on the changes in work conditions in industrialised countries. Worksite meal developed when more people became occupied in factories and had to do irregular working hours with shift work. The impact the irregular working hours has on the body functions; metabolic disruptions; was the foundation of making recommendations and research for eating at worksite. Thus the approach to eating at worksite was focused on the science of the body and its’ functions, rather than on the mind and the possible consequences food policies could have on the employees. Along with a more diverse interpretation and definition of health, the focus was assembled in a biological - psychological and social understanding, both in policies and practice. However focus has changed in the 90’s and carried through the 21st century to involve more social aspects as well as experiences and enjoyment related to the aspects of eating an eating together with colleagues.

The food as experience and source of enjoyment plays an increasing role in the workplaces attempts to stage the food in canteens and dining facilities. Workplaces increasingly tend to use eating facilities and healthy food opportunities as corporate branding both directed to the public and as a strategy to recruit and retain employees, especially in knowledge-intensive enterprises and worksites. This means that there do not seem to be a best way of organising food at work; the workplaces seem to strive for uniqueness when they invent their particular way of providing meals for the employees.

At the same time the growing rates of overweight and obesity, and the concerns regarding the risk of unfavourable consequence on the performance and long term health of the employees, has had a significant effect over the past decades on workplaces’ interest in the issue of eating at work.

Despite the similarities in the development of eating at worksite it is important to note that the food culture in the Nordic countries is different. This can be seen most significantly in Denmark and Sweden. In Sweden there is a tradition of two hot meals a day and thus also a longer tradition for worksite provided meals where as in Denmark the tradition for bringing a homemade cold lunch still plays a significant role although many workplaces has taken over the responsibility for food and meals.
Structure of eating at work

Workplaces are very different in terms of eating environment as well as in terms of working conditions offered to the employees (Thorsen et al., 2009). The structural conditions for food at the workplace is dependent on parameters such as gender distribution and educational background of the employees, type of work, working hours and location of work tasks. The working conditions are not the only factors deciding what is eaten at work. The eating habits seem to be passed on from the personal life and social class to the worksite eating. And the other way around the conditions of the work reflects the base of the employees’ health.

This means that blue colour workers seems to have far less opportunities of making healthy choices at work than white colour workers. This is an important challenge for all involved in food and nutrition interventions at worksite and there is a great potential in making interventions within these types of worksites. A number of parameters seems to influence the usage of worksite canteens as well as the nutritional quality of foods consumed. These parameters include the accessibility of fruit and vegetables, prices of meals, way of serving – buffet vs. counter or fixed portions, local food policies and/or restrictions, duration of lunch break, pressure of working tasks as well as type, taste and quality of the food served.

Health as a driver of worksite eating

The emerging governance of food at work has been especially significant in the case of fruit and vegetable promoting initiatives. Examples include “6 om dagen”, “Jobfrukkt”, “Mødefrugt”, “Firmafrugt” and other fruit and vegetable initiatives that has helped workplaces to organize their provision of healthy food options. Food and nutrition guidelines and policies have been a preferred instrument in many workplaces.

Also diploma and certification schemes for canteens are common and used in several countries where task forces of nutritional experts are responsible for setting criteria and guidelines of how to produce and serve healthy meals. Canteen take-away is the most recent health promotion strategy in the field. The aspects of canteen take-away is wider than the nutritional health aspects, the fundamental idea is also to secure the work-life balance by helping the employees in their daily life, to avoid the stress it is to work full time and having a successful and healthy private life.

Conclusion

Despite the cultural differences among the Nordic countries there seems to be a general increasing interest from a number of different stakeholders in redesigning food at worksite. These include workplaces, public authorities, research institutions, trade unions and NGO’s. The driving factors for this redesign seem to include a number of factors. Increasing prevalence of obesity and overweight seems to be important. But also the influence food intake has on work performance and well being seem to be important driver. In addition many workplaces put effort into staging food as a part of the experience of going to work and this seems to play an important role.

In general the fact that food became an issue at the workplace, and as a result of the object of governing attempts (governance), not only comes from the workplaces, but from a broad range of stakeholders. As a
result the responsibility for food, nutrition and health seems to have been shifting from a private matter to collective matter. Public health strategies in the Nordic countries (Nordic Council of Ministers, 2006) for as well as Corporate Social Responsibility strategies have fuelled this development and the research interest in the field has grown meanwhile.

**Discussion**

The paper shows that in contrast to healthy eating promotion interventions at school, worksite interventions in the Nordic countries are rarely evaluated. Thus one of the challenges is to generate scientific research providing specific knowledge on the evidence of health interventions at worksite. Especially there is a need to demonstrate whether interventions affect the employees positively in relation to food choices, health, absence, performance etc.

The paper also shows that there is a lack of sharing knowledge and experiences among practitioners, as well as among policy makers and among food and nutrition scientists. To secure a more goal-oriented approach more research is needed, to prove which initiatives makes positive or negative results for the employee as well as for the workplace, orientated towards physical conditions, social cohesion of eating and psychological aspects of health at work and workplace environment. For example through measuring consumed vegetables and fruits before, during and after a workplace intervention, and meanwhile gain access to more qualitative data of the employees job satisfaction, life status, sphere and work-life-balance.

**References**

Arsky, GH: Sc. Healthy eating at work the BAMA way, 2009 [Abstract].
Jóhannsdóttir, S.S, Ólafsdóttir, A.S, Johannsson, E. Successful physical activity and nutrition intervention at sea, 2009 [Abstract].
Lassen, A.D, Hansen G.L., the Danish Cancer Society. Canteen takeaway – provision of healthy meals in the home by worksite - developing and disseminating new tools to ensure nutritional quality of the meals, 2009 [Abstract].
Lassen, A., Thorsen, A.V., Trolle, E., Elsig, M., Ovesen, L. Successful strategies to increase the consumption of fruits and vegetables: Results from the danish ‘6 a day’ work-site canteen model study. *Public Health Nutrition, 7*(2), 263–270.

Olli, M., Koivisto, P., Pusa, T., Lahti-Koski, M. Heart symbol – a tool for promoting a healthier lunch at workplaces, 2009 [Abstract].


Patton, M. Qualitative evaluation and research methods. 1990 Newbury Park, California, Sage Publications.


Sorensen, G. What is the evidence on the effectiveness of healthy eating interventions at workplaces?, 2009 [Abstract].

Thorsen, A.V., Lassen, A. Andersen, J.S. og Mikkelsen, B.E. Workforce gender, company size and corporate financial support are predictors of availability of healthy meals in Danish worksite canteens, Public Health Nutrition, volume 12, issue 11, pp. 2068-2073. 2009

Trogdon, J; Finkelstein, EA; Reyes, M; Dietz, WH, 2009, A Return-on-Investment Simulation Model of Workplace Obesity Interventions. Journal of Occupational and Environmental Medicine, vol 51, 7, 751-758

WHO: The Ottawa Charter for Health Promotion, 1986,
http://www.who.int/healthpromotion/conferences/previous/ottawa/en/
Appendix 1: Press Coverage
Forskere vil udbrede viden om sunde spisevaner på jobbet

23. september 2009 kl. 13:00 / Indland

Virksomhederne står på spring for at hjælpe deres ansatte til sundere spisevaner, og forskere og politikere vil hellere end gerne hjælpe. Det viser forhåndsinteressen for denne uges nordisk-baltiske konference ”Better food at Work”, som lægger op til at dele gode erfaringer på tværs af landegrænser og sociale skel.

Konferencen bliver holdt i Tallinn i Estland, og den er arrangeret af Aalborg Universitet i samarbejde med det Estiske Institut for Sundhedsudvikling, Øresund Food Network og det sundheds-fremmende Nordhalk- program under Nordisk Ministerråd. Det nordisk-baltiske samarbejde giver en unik mulighed for at udveksle erfaringer om mad på arbejdspladser på tværs af grænserne, og i den sammenhæng er lande i Norden klare forbilder.

- For 10 år siden blev mad til medarbejderne betragtet som et rent drifts-anliggende, som man kunne sætte ”nogen” til at sørge for. Nu er det i nogle typer virksomheder blevet et strategisk anliggende, som direktionen går op i. Sverige og Danmark har førertrøjen på, og vi håber, at gode nordiske vaner med fokus på sund mad kan sprede sig østpå, forklarer professor Bent Egberg Mikkelsen fra Aalborg Universitet's Institut for Samfundsudvikling og Planlægning.

Sund branding

Firmabetalte frugt-ordninger og lignende tiltag er efter hans mening gode eksempler på, at virksomhederne kan gavne folkesundheden og egne interesser på samme tid. Sunde medarbejdere er gode medarbejdere, og samtidig er madordningerne med til at pleje firmaernes image.

- Vi oplever i øjeblikket en stærkt stigende interesse for emnet, fordi arbejdsgiverne bruger mad og måltidspolitik og sund mad i kantinen som en form for branding. De sender et signal om, at de ikke er som alle andre, og de bruger det både til rekruttering og til fastholdelse af medarbejdere, siger Bent Egberg Mikkelsen.

Social slagside

Indtil videre er det dog især teknologifirmaer, banker, forsikringsselskaber og andre vidensbaserede virksomheder, som sætter kosten højt på personaleafdelingeres prioriteringsliste. Derfor bliver en af udfordringerne at få de gode eksempler til at sprede sig til brancher med anderledes traditioner.

- Det er fint, at vidensvirksomhederne gør en stor indsats og er meget motiverede. Men hvis der skal være social balance, skal vi have andre typer arbejdspladser med, og der kan det officentielle hjælpe tingene i gang med særlige udviklingspuljer. Samtidig kan vi som forskere producere viden om, hvad der gør en forskel, og demonstrere fornuftige løsninger, som også kan bruges af medarbejdere, der er på farten eller har skæve arbejdstider, fortæller Bent Egberg Mikkelsen.

En del af forskerne gransker konsekvenserne af, at arbejdspladserne begynder at involvere sig i noget, som traditionelt har været et individuelt anliggende. Selv om det sker med de bedste intentioner, er det vigtigt at forstå medarbejdernes reaktioner og forbehold.


Konferencen begynder onsdag aften og fortsætter til og med fredag.
mola
Sund mad spredes mod øst

Af Anders Kanberg, Torsdag den 24. september 2009, 10:55

Virksomheder i øst-landene skal lære at servere sund og nærende mad for deres medarbejdere af danske virksomheder.

Virksomhederne står på spring for at hjælpe deres ansatte til sundere spisevaner, og forskere og politikere vil hellere end gerne hjælpe.


- For 10 år siden blev mad til medarbejderne betragtet som et rent drifts-anliggende, som man kunne sætte “nogen” til at sørge for. Nu er det i nogle typer virksomheder blevet et strategisk anliggende, som direktionen går op i. Sverige og Danmark har førertrøjen på, og vi håber, at gode nordiske vaner med fokus på sund medarbejdere og sund mad kan sprede sig østpå, forklarer professor Bent Egberg Mikkelsen fra Aalborg Universitets Institut for Samfundsudvikling og Planlægning.

Sund branding

Firmabetalte frugt-ordninger og lignende tiltag er efter hans mening gode eksempler på, at virksomhederne kan gavne folkesundheden og egne interesser på samme tid. Sunde medarbejdere er gode medarbejdere, og samtidig er madordningerne med til at pleje firmaernes image.

- Vi oplever i øjeblikket en stærkt stigende interesse for emnet, fordi arbejdsgiverne bruger mad og måltidspolitik og sund mad i kantinen som en form for branding. De sender et signal om, at de ikke er som alle andre, og de bruger det både til rekruttering og til fastholdelse af medarbejdere, siger Bent Egberg Mikkelsen.

Social slagside

Indtil videre er det dog især teknologifirmaer, banker, forskringsselskaber og andre vidensbaserede virksomheder, som sætter kosten højt på personaleafdelingernes prioriteringsliste. Derfor bliver en af udfordringerne at få de gode eksempler til at sprede sig til brancher med anderledes traditioner.

- Det er fint, at vidensvirksomhederne gør en stor indsats og er meget motiverede. Men hvis der skal være social balance, skal vi have andre typer arbejdspladser med, og der kan det offentlige hjælpe tingene i gang med særlige udviklingspuljer. Samtidig kan vi som forskere producere viden om, hvad der gør en forskel, og demonstere fornuftige løsninger, som også kan bruges af medarbejdere, der er på farten eller har skæve arbejdstider, fortæller Bent Egberg Mikkelsen.
Sundhedsfremme på arbejdspladsen virker

Arbejdet med sund og bedre mad på arbejdspladser har en positiv effekt, og virker sundhedsfremmende blandt medarbejderne. Arbejdspladsen og bespisningen på arbejdspladser spiller en afgående rolle, som arena for sundhedsfremmende initiativer målrettet medarbejderne.

Forskning viser at der kan opnås gode og vedvarende resultater, når sundhedsfremme implementeres gennem politiker og brede indsatser, mod store grupper som f.eks. medarbejdere på arbejdspladser. Resultaterne ved ændringer med fokus på den enkelte medarbejder, har i ringere grad længerevarende succes, her tænkes bl.a. på det der praktiseres med sundhedssamtaler, kostvejledning mm.

En generel sundhedspolitisk indsats, har større effekt fordi det sunde/usunde valg, først og fremmest beror på tilgængeligheden af sunde/usunde fødevarer på arbejdspladsen, f.eks. i kantinen og generelt i mad- og måltidskulturen. Dette forhold kan reguleres ved at fjerne usunde produkter, og øge tilgængeligheden af sunde.

En indsats i medarbejderkantinen fokuseret på sundere mad er en vigtig del af den generelle sundhedspolitik på den enkelte arbejdsplads. Sundhedspolitiske forandringer i samarbejde mellem praktikere og ledelse, uanset om der er tale om kommunale indsatser eller initiativer på den enkelte arbejdsplads.


Der blev debatteret fremtidige muligheder og udfordringer, i sammenhæng med den øgede forekomst af usund livsstil i de vestlige lande. Konferencen understregede at madkulturen og måltidsmiljøet på arbejdspladsen er afgørende for den enkeltes muligheder for at vælge sundt, og dermed et vigtigt led i at fremme medarbejderernes sundhed.

‘Best Practice’ fra Herlev Hospital

Køkkenchef Michael Allerup Nielsen fra Herlev Hospital fremlagde på konferencen visionerne for den store indsats i medarbejderkantinen på Herlev Hospital. Her har de arbejdet med at skabe nem, sund og billig kantinemad for personalet.

Sunde tiltag i medarbejder kantinen

En vigtig faktor i medarbejderkantinen på Herlev Hospital har været at øge udbuddet af sunde fødevarer, samt reducere udbuddet af usunde. Blandt andet blev fjernet fede og sukkerholdige produkter fra kantinens sortiment, såsom sodavand, juice, kager og sødmælk.

Den øvrige indsats blev i praksis etableret i henhold til næringsstofanbefalingerne. Kantinen på Herlev Hospital tjekker jævnligt det næringsmæssige indhold i maden og opskrifterne, og arbejder fortsat på at gøre ændringerne til nye vaner i den daglige drift. De har yderligere overvejet at arbejde mere med ernærings-mærkning af energiindhold og energifordeling, så medarbejderne nemt kan overskue hvilke produkter der er rigtige for dem.

Der bliver i kantinens daglige drift og visioner lagt en stor arbejdsindsats i at gøre det sunde valg til det nemme valg. Dette gøres i praksis ved at sikre et stort udbud af sunde salater, sandwiches med frisk brød samt en daglig sund varm ret.

I hele udbuddet er der fokus på anvendelse af frugt og grønt, høj råvarekvalitet, sammensætning der giver masser af smag, økologiske mejeriprodukter med lav fedtprocent, tilgængelighed af frisk koldt vand mm. Disse tiltag stemmer godt overens med fødevarestyrelsens anbefalinger for sund kantinedrift, der bygger på 4 generelle anbefalinger og 8 konkrete målsætninger, der kan indarbejdes i menuplanen.

Sund kantine – en God Forretning

Der er et stort og afgørende potentiale i at arbejde sundhedsfremmende med bespisningen af arbejdspladsernes medarbejdere, både for sundhedseffekten, kantinedriften, kundesuccesen og omsætningen ved omstilling til sund drift.

De ændrede kantinestrategier har øget antallet af kunder med ca. 80%, samt bidraget til at øge de faglige kompetencer blandt køkkenpersonalet på Herlev Hospital.

Herlev Hospital var blot en af ‘best practice’ historierne fra konferencen, blandt øvrige
kantinetiltag kan nævnes ‘Kantine Takeaway’ som et bud på mulighederne for sundere mad for medarbejderne.

(Læs mere på www.kantinetakeaway.dk)

**Ildsjæle søges**

Det kan være en krævende omvæltning at skulle kortlægge og implementere nye visioner for den mad der serveres på de danske arbejdspladser. Men det kan gøre en sundhedsmæssig forskel!

En af konklusionerne fra ‘Better Food at Work’ konferencen er at vedvarende sundhedsfremme på arbejdspladser, kræver passionerede praktikere til den daglige drift. Der er brug for ildsjæle med vilje til at implementere og arbejde kontinuerligt med udviklingen af sundheds- og kostpolitikker i praksis.

Det er ikke kantinen alene der har ansvar for de sundhedsfremmende initiativer, men sund kantinedrift og sund mad er en vigtig og solid del af de generelle sundhedsfremmende strategier arbejdspladserne kan arbejde med, for at øge medarbejderes sundhed.
Tasakaalustatud rõuna tagab tervise

Tänane ülemaailmine südamepäev keskendub teadmisele, et oma töötajad positiivselt terveksiks tegudest on üheks esimeseks teemadest, mis on kasulikud töötajatele, tegevusse juhtumist, ümbriskondu ja arendanud liikumisvabadusega, mis võimaldab tervisenäitajate liikumist ja toitumise ja elukeskkonna tõestamist.


tehvad
tagada sõbraliku ja toetava kollektiivi areng.

Anna töötajale selged ja arusaadavad juhised ning tee samuti töötajatele võimalusi kaasa võetud toidu soojendamiseks.

Mõelge, kuidas võiksite tulemusi mõõta ja kuidas muidugi tervislike valikuid?

Kui saab toodida toetada töötajate tervislikkumaid valikuid?

Kuidas saab toodida toetada töötajate tervislikkumaid valikuid?

Siirge vaask

Eesti Haigekassa

Tühje tervise
eavi sõltumatusest ja liikumisvabadusest.

Rahvusvaheline konverents «Better food at work – the Nordic experience» ja programme, saamaks inimeste tasakaalustatud toidu te挂着, jaoks kasutades eesti ja rahvuseid, kuni saadu valikult. Kui saadakse eesmärgi, aitab see teha tervislikku valikut.

Töötav inimene sööb vähe, vaid investeering oma terviseks sellesuunaliste tegevustest on üheks esimeseks tegudest.

• Söö iga päev vähemalt viis portsjonit puu- ja köögiviljast, mida kaotatud eluaastatest Euroopas seostatakse ligi kolmanda õhku, vaid investeering oma terviseks sellesuunaliste tegevustest on üheks esimeseks tegudest. Kiviluuk

• Taga sõbraliku ja toetava kollektiivi areng.

Meestearst Margus Punab online-intervjuus Postimees.ee lugejatele

Külli Luuk

Töötav inimene sööb vähe, vaid investeering oma terviseks sellesuunaliste tegevustest on üheks esimeseks tegudest.

Külli Luuk

Töötav inimene sööb vähe, vaid investeering oma terviseks sellesuunaliste tegevustest on üheks esimeseks tegudest.
Südamepäev toob kokku Põhja- ja Baltimaade toitumiseksperdid

Maris Jakobson, Tervise Arengu Instituut

Sel pühapäeval tähistatakse maailma südamepäeva, mille tänavune tunnuslause on "Work with heart" (Tööta südamega). Tervise Arengu Instituut (TAI) tähistab südamepäeva rahvusvahelise konverentsiga töökohtade toitlustamisest.

Konverents "Better food at work - the Nordic & Baltic experience" (Parem toit töökohal – Põhjamaade ja Baltimaade kogemused) tutvustatakse Põhjamaades läbi viidud teaduslikke uuringuid ja programme ning parenimad praktikaid sellest, kuidas töökohal pakutav toit mõjutab inimest tervist ning töövõimet. Käesolev konverents on üheks esimeseks teetähiseks sellesuunaliste tegevuste kavandamiseks ka Eestis.


ETTEKANNETE KOKKUVÕTTED

I päev

Key note speech: What is the evidence on the effectiveness of healthy eating interventions at workplaces? Dr. Glorian Sorensen, Harvard School of Public Health, USA

Ettekanne võtab kokku Taani ülikoolide ülevaate nende kirjanduses ilmunud uuringutest toitumise kohta töökohal. Uuringus keskendutakse peamiselt seostele leidmisele tervislikult ja töökohtades säilitatud võimalustel. Sellest osalenud kujutasid peatuisena mõjutada inimeste toitumist töökohal ja ehitada tervislik toitumise kultuur.

Sorensen tõdeb, et vaja on täiendavaid uuringuid, et selgitada välja, kuidas toitumine nii individuaalsel kui ka organisatsioonialal mõjutab tervist. Töö, töökohtades töötajate tervise edendamine on tõhus, kui töötajad osavad, et tervislik toitumine on nende oluline osa töö ja elu keskuses.

Keskonnas peetakse seiskumis, et töökohas on võimalus ongustusliku toidu saada, aga see ei ole tõestatud riiklikusadana. Eestis on võimalik teostada tervislikku toitumist töökohal, kuid see vajab selged teaduslikke alad, mis muudsid töökohad tervisliku toitumise eesmärgiga.
3. Does worksite provided meals lead to healthier eating? A Finnish Perspective by: Dr. Eva Ross, Public Health Research Forum, Finland

Ettekanne põhineb Soomes seni avaldatud uurimistöödel, mis käsitlevad söömisvõimalusi töökohas. Soomes sööb 30% töötajatest iga päev töökoha sööklas, 30% meestest ja 45% naistest ütlevad toidu kodust kaasa. Uuringud näitavad, et töökoha sööklas einaemast võib seostada tervislikumate toitumisharjumustega.

4. Nutrition, shift work and chronobiology – when to eat?

Professor Maria Lennernäs, University of Kristiansstad, Sweden

Ettekanne annab ülevaate vahetustega töötavate inimeste toitumise iseärasustest. Üha enam ettevõtted töötavad paindliku töögraafiku järgi ja see nõuetakse ka söömisajad ja töökoha sööklaus. Uuringut tõstetakse, et vahetustega töö mõjutab inimeste sotsiaalseid ja bioloogilist elurõimu ning see omakorda avaldab mõju nende seltsielule, õiguste- ja uneaegadele.

Vahetustega tööd seostatakse sageli mao- ja soolevaevustega, väsimuse ning depressiooniga.

Samuti on see riskitegur, mida seostatakse ülekaalulise õigustega, südame-veresoonkonna haiguste, 2. tüüpi diabeedi ja mitmete teiste haigustega.

Ettekanne annab ülevaate Rootsis läbi viidud uuringust töökohal toitumisest. Uuringu vältel toimusid erinevad välimustest, intervjuud ja küsitlused, hinnati erinevaid töökohtade töökohal: töötajad ise, juhtkond, toidu pakkuja ning nende suhtumine töökoha sööklat.

6. Successful intervention with physical activity and nutrition at sea.

Sonja Sif Jóhannsdóttir, Anna Sigríður Ólafsdóttir & Erlingur Johannsson, Centre for Research in Sport and Health Sciences, School of Education, University of Iceland


7. Coin offer – Meal "Diastole", Healthy eating at healthcare institutions.

Michael Allerup Nielsen, Catering Manager, Herlev University Hospital, Foodservice Unit, Denmark


8. New possibilities in influencing eating patterns through healthier canteen take away.

Dr. Gitte Laub Hansen - The Canteen Take Away Partnership, Danish Cancer Society, Denmark

Ettekanne tutvustab Taani Herlevi õliharilik haigla tegevust oma sööklast pakutava toidu tervislikumaks muutmisel.

9. Eating Habits in the Baltic States

Nutrition expert Tagli Pitsi, National Institute of Health Development, Estonia & Sirje Potisepp, Director Association of the Estonian Food Industry

Susanna Raulio, Eva Ross & Ritva Prättälä, National Institute for Health and Welfare, Finland


Uurimused

11. Strategy for influencing eating patterns through the worksite.

PhD student Signe Poulsen, Aalborg University, Denmark

Ettekandes käsitletakse tervist edendavat tegevust töökohal. Et inimesed veedavad tööl väga suure osa oma päevast, on töökohal olemas oluline osa nii töötajate kui nende võrdsed harjumised. Kõige ettekatavat tõstes on töökohal olemas oleva võimalust kasutada töötajatele ettevõtte katseid, millest on kindlasti mõjutatav. 12. Designing food spaces for better meal experiences at worksites.

M.Sc. Tenna Doktor Olsen, Aalborg University, Denmark

Ettekande käsitletakse tervist edendavat tegevust töökohal. Et inimesed veedavad tööl väga suure osa oma päevast, on töökohal oluline osa nii töötajate kui nende võrdsed harjumised. Kõige ettekatavat tõstes on töökohal olemas oleva võimalust kasutada töötajatele ettevõtte katseid, millest on kindlasti mõjutatav. 11. Strategy for influencing eating patterns through the worksite.

PhD student Signe Poulsen, Aalborg University, Denmark

Ettekandes käsitletakse tervist edendavat tegevust töökohal. Et inimesed veedavad tööl väga suure osa oma päevast, on töökohal oluline osa nii töötajate kui nende võrdsed harjumised. Kõige ettekatavat tõstes on töökohal olemas oleva võimalust kasutada töötajatele ettevõtte katseid, millest on kindlasti mõjutatav.
A multisectorial approach to planning implementation of policies and actions towards health at workplace.
Triinu Täht, Tagli Pitsi, Sirje Vaask, Anneli Sammel
Большую часть дня работающий человек проводит на работе — и, конечно же, в это время он хочет есть. Как свести к минимуму то время, которое тратится на стояние в очередях в близлежащем кафе или в соседнем кинотеатре? Как сделать так, чтобы обеденный перерыв принес сотруднику полноценное питание и отдых, а не половину бутерброда, в которой нет и воды?
## Appendix 2: Summary of Feedback on conference

### Feedback to Better Food at Work Conference 2009 in Tallinn

<table>
<thead>
<tr>
<th>Nr</th>
<th>1. How did the Conference meet your expectations?</th>
<th>2. Which presentation(s) gave you the most ideas and inspired you the most?</th>
<th>3. Which presentation(s) gave you new knowledge regarding present/future challenges in your field?</th>
<th>4. Did the conference give you the opportunity to enter in new networks?</th>
<th>5. What are your recommendations to the organizers while preparing for the next Conference?</th>
<th>6. Other comments and/or suggestions.</th>
<th>Name*</th>
<th>Organization*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very well</td>
<td>Food, health, working hours</td>
<td>Eating at work site</td>
<td>I think about this</td>
<td>That's OK</td>
<td>It was very good days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>To full extent, even more</td>
<td>Maria Lennernäs; Sonja Sif Johannsdatlin; Jens Stem Nielsen</td>
<td>Eva Roos; Glorian Sorensen</td>
<td>Yes</td>
<td>Not to put so much information in one day. 24th was too overcrowded with information</td>
<td>Very well organized conference!</td>
<td>Iveta Pudele</td>
<td>Public Health Agency, Latvia</td>
</tr>
<tr>
<td>3</td>
<td>Very well; found a new information about shift work</td>
<td>Yes, Stem Nielsen</td>
<td>Maria Lennernäs</td>
<td>Yes, about students</td>
<td>All was very excellent</td>
<td>Thank you for conference!</td>
<td>Iveta Pudele</td>
<td>Public Health Agency, Latvia</td>
</tr>
<tr>
<td>4</td>
<td>They exceeded my expectations</td>
<td>Maria Lennernäs</td>
<td>Maria Lennernäs</td>
<td>Sure</td>
<td>We need a more concrete project to collaborate on</td>
<td>-</td>
<td>Morten S.M</td>
<td>Danish Cancer Society</td>
</tr>
<tr>
<td>5</td>
<td>Very good</td>
<td>The biological- nat eat in the night</td>
<td>The biological parts</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>Lene Maack</td>
<td>Herlev Hospital</td>
</tr>
<tr>
<td>6</td>
<td>There was surprisingly little from the Baltic contributions</td>
<td>Glorian Sorensen</td>
<td>Glorian Sorensen</td>
<td>Yes! Bama</td>
<td>Less cake; more international input</td>
<td>-</td>
<td>Gütte</td>
<td>Danish Cancer Society</td>
</tr>
<tr>
<td>7</td>
<td>Very good!</td>
<td>Unfortunately wasn't not here for the first day. The BAMA work was very exciting</td>
<td>Everything was very educating</td>
<td>Yes</td>
<td>Everything was perfect</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Pretty ok overview of Nordic+Baltic experience</td>
<td>Glorial Sorensen; Jens (truck drivers); Icelandic fishermen</td>
<td>Gloria Sorensen; Jens (truck drivers); Icelandic fishermen</td>
<td>Gloria Sorensen; Maybe with Estonian Nat Health Development Institute</td>
<td>Time for an excursion; time for a field visit</td>
<td>-</td>
<td>Michael Sogaard Jorgensen</td>
<td>DTU</td>
</tr>
<tr>
<td>9</td>
<td>Well</td>
<td>Designing food spaces for better meal; experiences at work</td>
<td>Designing food spaces for better meal; experiences at work; A partnership approach to fruit and vegetable provision at</td>
<td>Yes, it did</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number</td>
<td>Statement</td>
<td>Speaker(s)</td>
<td>Additional Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-----------</td>
<td>------------</td>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The conference was more than I expected. It was very good!</td>
<td>I think I liked most Maria Lennernäs presentation. Interesting presentation were also about fishermen and truck drivers</td>
<td>( \text{I hope so} )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thank you very much! Keep on going!</td>
<td>Mary-Liis Kütt</td>
<td>ERIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Super useful</td>
<td>Morten’s a partnership approach to fruit and vegetables provision at work</td>
<td>Jens Stem Nielsen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>101%</td>
<td>Maria Lennernäs; Jens Stem Nielsen</td>
<td>Maybe, time will tell! To keep the same high level</td>
<td>Heli Voogla</td>
<td>AS Tallinna Vesi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Met and exceed expectations</td>
<td><strong>Food@work programme presentation</strong></td>
<td>Truk drivers interview gave new ideas for performing intervention studies in the work-place</td>
<td>Yes, definetly. Collaboration with Baltic countries and Nordic representatives</td>
<td>More data to prepare for work-group discussions beforehand; could raise the level of commitment to proposals</td>
<td>Liis Kambek</td>
<td>National Institute for Health Development, Estonia</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Excellent! It was very practical!</td>
<td>All presentations about best practices</td>
<td>Shift-workers were for me totally new issue</td>
<td>Yes, it did. Now I really feel that it is possible even if we are so different</td>
<td>Technical equipment should be checked</td>
<td>I liked it very much; it takes more time to tell comments is needed.</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Good- was very interesting</td>
<td>The one about workers shift food at night: and how your body react</td>
<td>Maria Lennernäs</td>
<td>Don’t know</td>
<td>Invite more people</td>
<td>None</td>
<td>Michael A</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>I received more information than I expected</td>
<td>Maria Lennernäs on shift work</td>
<td>Morten Strunge Meyer about partnership</td>
<td>-</td>
<td>All was done correct and I have no recomendations to the organizers</td>
<td>-</td>
<td>Santa Livina</td>
<td>MoH of the Latvia</td>
</tr>
<tr>
<td>17</td>
<td>Yes</td>
<td>Maria Wyberg; Tenna Doktor Olsen</td>
<td>Tenna Doktor Olsen had some exciting new perspectives which gave me something to think about. + Morten S.Meyer also had great perspective</td>
<td>Yes, I think everyone was open and interested in networking</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>Very well!</td>
<td>Jens Stem Nielsen</td>
<td>dr. Eva Roos</td>
<td>Yes</td>
<td>Thank you!</td>
<td>-</td>
<td>National Institute for Health Development, Estonia</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>:)</td>
<td>Glorian Sorensen; Maria Lennernäs; Sonja Sif Johannsdultir</td>
<td>-</td>
<td>It most certainly did</td>
<td>More facts on the poster presentations. The posters could be in the rooms where coffee was served</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Exceed expecations</td>
<td>Especially liked sission on irregular schedule</td>
<td>-</td>
<td>excellent ideas</td>
<td>might engage writers</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>Better’ than I expected</td>
<td>Martensen Denmark Cancer; Gitte Laub Hensen; Jens Stem Nielsen</td>
<td>The best practice examples; see question no 2 answers</td>
<td>Maybe</td>
<td>Some more time for using hotel facilities and to see Tallinn</td>
<td>-</td>
<td>Maria Lennernäs</td>
<td>Kristianstad University College</td>
</tr>
<tr>
<td>22</td>
<td>Very good</td>
<td>presentations about practical interventions (fishermen and truckdrivers)</td>
<td>?</td>
<td>yes</td>
<td>Separate rooms for the cafe discussion (it was difficult to concentrate in the group, because of a lot of talk in the room)</td>
<td>-</td>
<td>Karina D. Jensen</td>
<td>Danish Cancer Society</td>
</tr>
<tr>
<td>23</td>
<td>Good</td>
<td>Maria Lennernäs on shift work</td>
<td>Maria Lennernäs on shift work</td>
<td>No, I am a practitioner</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Very good</td>
<td>Maria Lennernäs on shift work</td>
<td>Maria Lennernäs on shift work</td>
<td>Yes/no</td>
<td>Keep on the good work!</td>
<td>-</td>
<td>Jonas Thuntey</td>
<td>Herlev Hospital</td>
</tr>
<tr>
<td>25</td>
<td>The conference was very perfectly organized and presentations were good</td>
<td>Maria Lennernäs-nutrition/shift work and dermobiological- when to eat</td>
<td>Maria Lennernäs-nutrition/shift work and dermobiological- when to eat</td>
<td>I hope so</td>
<td>Keep on the same way</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>Very much as expected; very good speakers and most areas were covered</td>
<td>Maria Lennernäs; Tenna Doktor Olsen; Michael Allerup Sonja Sif Johannsdit; Morten Strunge Meyer</td>
<td>Maria Lennernäs; Tenna Doktor Olsen</td>
<td>I think so but need to go back think and consider to take action and on what</td>
<td>Maybe involve more students from different countries: and maybe other than worksite related aspects</td>
<td>-</td>
<td>Line Aessing Marensten</td>
<td>Aalborg University</td>
</tr>
</tbody>
</table>