

Background paper for

# Public Foodscapes

a section of the New Nordic Food conference

- The potential and future of Nordic food when eating outside of the home -

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## Introduction

Firstly, this paper presents some key figures on public foodservice in the Nordic countries. Secondly, 4 cases illustrating Nordic initiatives, which have attempted to overcome various challenges in public foodservice, are described. In closing, a summary of challenges and innovative ideas are presented.

The cases included in this paper present some examples of Nordic best practice concerning various aspects of food and meals in hospitals and other good cases will be presented further at the conference. Combined, the cases presented at both the conference and in this paper represent all of the Nordic countries. The aim is to give an impression of innovative efforts going on in the Nordic countries and alternative practices in the field of foodservice. However, the list is not exhaustive.

Best practice is understood in this context as cases where the traditional focus on costs are challenged by, e.g., local and/or organic food, the meal relating to more than just food and nutrition, and user-driven innovation in product development.

Hospitals are being used as an example of out-of-home meals since hospitals account for a considerable part of the public food budget, hospitals cater for patients as well as visitors and staff, and encounter the most challenges experienced in the foodservice sector. It is important to emphasise that though hospitals serve as example issues on therapeutic diets will not be included since they are specific to hospitals.

This paper and the conference presentations are all meant to inspire future work on improving food and meals served outside of the home in institutional foodscapes.

## Background

Approximately 5 million public meals are served daily<sup>(1)</sup> and increasing demands are being placed on food and meals. Besides recommendations regarding the energy and nutrient content of the diet, there is a growing debate about what other criteria are important for food and meal quality, such as whether the food is homemade, prepared using local and organic raw ingredients, etc. At the same time, there is a growing recognition that the meal experience involves much more than just the food<sup>(2)</sup>, and in which it is essential that the food is well made and served in an appetising way, the surroundings promote eating, etc.

Many people are completely dependent on the food being served, such as in hospitals and nursing homes. It is especially in these settings that it is essential that the food meets nutritional recommendations, but also other requirements so that the food is actually being eaten. In hospitals, it is known that mal- and undernutrition in patients is a major problem <sup>(3,4)</sup> and that in the worst case, it can lead to worsening in the patient's illness and health, and thereby prolong hospital length of stay <sup>(5)</sup>. There are especially challenges in patients with low intake since they often lack the desire to eat. Additionally, studies indicate that a large proportion of food is wasted in hospitals, which in some places is equivalent to up to 40% of the food produced, probably due to patients' low intake. <sup>(6)</sup>

However, there are challenges in determining and implementing broader quality parameters other than the financial, which currently are the main criteria for the food. Other challenges include management's and employees' adaptability and competencies and tender- and procurement-rules for public kitchens.

## Facts

All together, 1.5 billion public meals are served yearly in which Sweden accounts for the largest part followed by Finland, then Denmark, and Norway (see Table 1).

The countries differ in their classification of the public foodservice categories, as is illustrated by the empty spaces in tables below.

The countries also have differences in their organisation between and within the categories and as a result, not all of the figures are comparable. For example, the organisation of school lunches differs between the countries.

In Sweden and Finland, school lunches account for the largest part of public meals, where school lunches account for a small part in Denmark. These differences are the result of Finland's and Sweden's long tradition of serving and preparing lunch in the schools. Finland is even a step further than Sweden since the quality is assured through legislation (delfi). In Norway and Denmark, lunch eaten in schools are mostly packed lunches from home.

**Table 1. Meals served in the public sector per year in 2009 (in 1000s)**

Category/Country	Sweden	Norway	Finland (2008)	Denmark	
Schools	248 484		216 727	30 029	
Day care/child care	217 452		28 441	11 052 <sup>2</sup>	
Eldercare	106 910		89 450	109 500	
Healthcare (incl. hospitals)	47 898		76 108	38 893	
Social care	7 480			14 300	
Prison services	6 743		21 468	3 470	
Armed forces	6 589		3 982	2 000	
Staff	61 214			18 522	
<b>Total</b>	<b>702 770</b>	<b>200 491<sup>1</sup></b>	<b>436 176</b>	<b>228 074</b>	<b>1 567 511</b>

*Reference: Delfi Foodservice guide 2010*

\* Empty spaces means that no figures could be found for the specific category.

1. For Norway, only total meals has been listed. Day care is not included since their food is purchase mainly from the grocery sector.

2. Number of meals served was calculated based on that not all day cares served food, and some only served reduced meals as snacks.

Table 2 shows the countries' spending on food by the same categories used in Table 1. The proportion of number of meals in each category in Table 1 compared with the proportion of food expenditures in the corresponding categories in Table 2 differs proportionally. This means that there is much difference in the amount per meal in the various categories. This is because some categories serve a 24-hour diet, e.g., eldercare, while others only serve individual meals or snacks, e.g., day care.

The figures in Table 2 only include food product expenses, whereas expenses from wages, rent, and other expenses are not included.

**Table 2. Food expenses in million SEK in the public sector per year in 2009**

Category/Country	Sweden	Norway	Finland(2008)	Denmark <sup>1</sup>	
Schools	3 202	190	1 605	300	
Day care/child care	1 944		198	380	
Eldercare	2 191	1 130 <sup>2</sup>	827	2 140	
Healthcare (incl. hospitals)	1 067	740	705	850	
Social care	172			710	
Prison services	128	80 <sup>3</sup>	257	70	
Armed forces	130	260	37	120	
(Staff	1 234	770 <sup>4</sup>		440	
Boarding schools		200			
Total	8 833	3 370	3 628	5 010	<b>20841</b>

Reference: Delfi Foodservice guide 2010

\* Empty spaces means that no figures could be found for the specific category.

1. The distribution of food expenses in the sectors are based on estimates and are therefore uncertain.

2. Figures for eldercare and day care (children) are merged in the Norwegian data and costs from day care are not included since their purchases are mainly from the grocery sector

3. Figures for social care and prison services are merged.

4. Staff cafeterias with their own kitchen.

## Trends and perspectives

In Finland, the private foodservice sector is larger than the public sector when looking at centres, although more meals are being served in the public than private sector. In general, the number of centres is decreasing at the same time as the number of meals is increasing. In particularly in the public food sector, there is a trend of increasing centralisation with bigger central kitchens. Another trend is that private actors are gaining ground in the public foodservice sector.

A trend of having larger centres is also evident in hospitals in Denmark where 5 new so-called 'super hospitals' are to be build over the next years. This will involve the closure of some hospitals, whereas others will be expanded. (delfi) This will lead to increased centralisation and production of larger batches, which will require organisational changes in order to ensure food quality.

Trends in all of the countries are moving toward an increased in purchasing through distributors as opposed to direct suppliers. Also, distributors that provide a full-assortment are gaining ground over distributors that provide partial-assortments and fresh foods. For example, in Norway, procurement co-operations have been established both in regional and municipal authorities. However, the proportion from direct supply has gone down in 2009 to a level of 57% of the foodservice supplies went through direct deliveries.

In Denmark, the distribution of organic foods has expanded over the last years and is becoming more professional. Many distributors are specialised and having their own importing as well. The organic distributors are mainly regional. (1)

## Cases 1 to 4

### Case 1: Local food at Simrishamn Hospital, (SE)

**Topic:** Culinary food quality of local food at Simrishamn Hospital.

**Background:** It is often economic criteria (i.e., expense of each purchased food product), which drives the purchase of food in large-scale kitchens and are thereby determining factors for the quality of the food served. However, there lacks other criteria for choosing food products, e.g., the all included price per meal served as well as tools to describe the added value of meals for clients, patients, and residents e.g. when served local food.

**Aim:** To identify barriers and opportunities to use local foods to a greater extent in the future.

**Project:** The project was conducted as a pilot project in 2008-2010 under the program "Innovation in Gränsland" and conducted in collaboration between Know How Sweden and Carema Hospital in Simrishamn. Local food was served at Simrishamn Hospital over 7 times in which 140 portions (for patients, take-away and cafeteria) were produced each time. The largest portion of the ingredients came from producers within a distance of 20-30 km from the hospital.

**Results:** The project showed that it was possible to replace processed food products with local raw ingredients using the following strategies:

- 1) that the kitchen-director and -staff were supported in developing new competencies, including development of new recipes and contact to suppliers.
- 2) that the approach to local suppliers changed since they were often perceived as being unwilling, uninterested, or unable to deliver to a large-scale kitchen.
- 3) that it is accepted that local food could cost more than processed food since it involved extra work in preparation of the raw ingredients.

Experience from the project showed that local food was appreciated by patients as well as healthcare staff, produces less waste, and met nutritional recommendations.

**Identified barriers:** A main finding of the project was that diet planning and implementation of food process occurred in isolation from the doctors and other healthcare staffs' work and that an ongoing support for local foods in the hospitals requires more involvement from other professions than just the kitchen-director and -staff. There is currently no organisational understanding that there is a need for cooperation between different professions regarding nutritional objectives and that there lacks criteria for assessing (besides financial) regarding patient food in hospital.

It was challenging to establish contact and collaboration between local producers and the kitchen. Additionally, the kitchen staff had little knowledge about local food products, their seasons, etc.

For the kitchen manager, planning and adapting recipes by season, partly in relation to extra work in the kitchen and changes in ordering and kitchen routines, was required.

Despite the fact that prices for local raw ingredients were about the same as wholesale prices, the locally produced food ended up being more expensive than the “wholesale food” since the local raw ingredients required extra work in the kitchen.

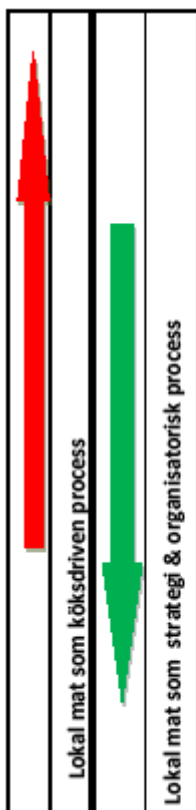
Smaller producers had more focus on production than on marketing and product information for large potential customers. At the same time, they sometimes had difficulty delivering products often in an economically viable manner since the quantities per delivery were often too small.

It was difficult to assess the locally produced food’s true value for the patients.

**Possible solution strategies:** In order to introduce local food in hospitals, food and nutrition issues should be a part of the hospital’s policies and management processes. A common organisational model for the structure and process of the 'food chain' with clearly defined aims in order to establish objectives for the different actors in the chain should be developed. All stakeholders should be involved (physicians, dietitians, kitchen staff, departments, patients, suppliers, network).

The hospital and local food suppliers should establish a network to facilitate cooperation. Local food suppliers should be helped with advertising and informing about its products and to handle the ordering process and transport. The staff in charge of ordering required assistance in developing simple routines to more effectively handle orders from several local vendors.

*The project’s recommendations for using local raw ingredients in hospital food: “12 steps to success with local food in hospitals”*

	Gör kost på sjukhus till en strategisk fråga, som sjukhusledningen äger.
	Behov av kontinuerlig uppföljning av kosthållningen och dess effekter med ständig rapportering till ledningen.
	Marknadsför sjukhusets satsning på lokal mat i lokala medier
	Lyft fram att mat är roligt (genom smaklaboratorier, inbjudan av lokala leverantörer, recepttävlingar, specialveckor, kombinera med kultur osv. ) och viktig för läknings- och rehabiliteringsprocessen
	Ändra inställningen från att kost är service till att kost förmedlar sjukhusets ansvarstagande för förbyggande sjukvård som riktas såväl till patienten, personalen som tredje man (besökare)
	Involvera den medicinska expertisen på sjukhuset i kostprocessen. Introducera kost som behandlingens tredje ben för hälsan (diagnos av kost som sjukdomsorsak kombineras med insatser för bättre kost).
	Skapa en organisation för kostprocessen, där sjukhusledningen och den medicinska sidan är delaktiga
	Kombinera grossistlogiken med lokal mat (t.ex. vad gäller beställningsrutiner och transportfrågor).
	Integrera vårdpersonal samt läkare i kostprocessen på vårdavdelningen.
	Intressera lokala producenter för storkök (förenklat hantering, säker efterfråga osv.)
	Förändra kostprocessen från ”grossistberoende” till inriktning på lokal mat
	Satsar på kompetensutveckling av kostchef och kökspersonal (säsongsrecept, planering och leverantörskontakt)

Reference: (7) Friedrich P & Stigsdotter M. Här växer hälsen. Erfarenheter från ett projekt om "Lokal mat på sjukhus" på Simrishamns sjukhus. Healthy Know How Sweden, Carema Närvård Simrishamn"

## **Case 2: Project Meal Experience: Improving the meal experiences of elderly patients with low intake at Glostrup Hospital (DK)**

**Topic:** Improving the meal experiences of elderly patients with low intake.

**Background:** Elderly patients with low intake are at particularly high risk for becoming undernourished this risk is increased when hospitalized as many elderly patients' appetite is diminished additionally. In this project meals are understood as more than just food. The experience of the meal as a whole plays an important role in relation to patients' desire to eat. It's assumed that the key to a better meal experience for patients is highly dependent upon the individual departments since it is where the physical, social and emotional context for the meal is created.

**Aim:** To investigate how the low intake patients' meal experiences at Glostrup hospital can be improved to promote their desire to eat.

**Project:** The project was conducted in 2010-11 at Glostrup Hospital with the Central Kitchen at Glostrup Hospital as the project leader and Livningplus aps as an external consultant responsible for data collection and analysis. The project was supported by Helsefonden. The project was based on user-driven innovation perspectives and focused primarily on elderly patients with low intake from internal medicine and rheumatology departments. Evidence was collected by anthropological fieldwork including participant observations at mealtimes combined with in-depth and structured interviews of both staff and patients.

**Results:** There were identified 11 themes of importance to the patients' meal experiences:

- 1)communication
- 2)ordering
- 3)preparation of the eating environment
- 4)space
- 5)hospitality
- 6)encouragement
- 7)interruptions
- 8)social context
- 9)organization
- 10)snacks
- 11)food.

It was found that the patients' experience of the meal depended upon all of the themes such that improving their meal experience required initiatives related to more than a single theme.

**Identified barriers:** Some places were able to address all themes, whereas other places were only able to address individual themes due to local conditions and challenges.

As a result of the healthcare staffs' many tasks, meals were viewed as being troublesome and also less important than other forms of treatment and care. It was difficult for the healthcare staff to focus on encouraging patients to eat during a busy workday and it was easiest to accept patients rejecting food. Snacks were often forgotten or under prioritised during the busy workday despite the fact that they should constitute 50% of energy intake in patients with low intake.

Similarly, preparation of the eating environment was under prioritised. The institutional feel that characterised both common areas and patient rooms highlighted the illness of the patients and thereby worsened their meal experience. The furniture in patient rooms was not designed for eating, and the common area, in addition to serving meals, was also used for holding staff meetings, taking blood samples, and giving medicine to patients. Ceiling lights made the rooms seem cold and made it difficult, especially for the elderly, to see what they were eating. Meals were frequently interrupted by illness-related things, such as taking blood samples, administration of medication, examinations, medical interviews etc., which all had negative influences on the meal experience.

There were many staff groups involved in handling the meals and a lack of structure and organisation surrounding meals resulted in unforeseen events or delays that could easily make everything fall apart.

Previous bad experiences, either in hospital or elsewhere, resulted in some elderly patients avoiding meat. Too much seasoning and too many 'non-traditional' dishes also had a negative impact on the amount of food eaten and lack of variety during long-term hospital admissions.

**Possible solution strategies:** In order to improve patient meal experience, it was not the most important to address all 11 themes, but more so that the country's hospitals had gained a general understanding that patients' desire to eat could be increased by improving their experience of the meal as a whole, which required interdisciplinary collaboration between the kitchen and healthcare staff. It is important that the status of meals is elevated so that food and meals were viewed and prioritised as a central part of treatment.

Some of the more specific recommendations from the project were that it is important that healthcare staff take the time to partake in encouraging patients to eat and do not immediately accept a patient's "no thanks" to food as well as to serve smaller portions of food to patients with low intake.

Departments should prioritise snacks as highly as main meals, e.g., by serving snacks on a plate and encouraging patients to eat them.

Many of the elderly patients asked for more traditional dishes that they recognised from home. The smell of food was important to stimulate their appetite.

Responsibility for the meal should be placed so that there is a single staff member who is responsible for ensuring that meal-related tasks are completed. One or more meal hosts should be appointed to take time and responsibility to express hospitality regarding the meal, such that the host's relationship with the patient is based solely based on the food and meals as opposed to their illness. This gives the opportunity

to influence patients' meal experiences in a positive way since personal interactions during the meal create a much needed break from illnesses.

The meal should be reserved exclusively for the patients' eating by taking a break from non-emergency interruptions, such as taking blood samples, administration of medications (unless necessary before the meal) and ward rounds. Preparing the dining environment, such as by airing out before the meal, could help contribute to a positive meal experience for patients. The eating space and furnishings should strive to convey a homey atmosphere so as to promote a break from illness. Lighting over the tables could be hung in the common room or a small lamp with soft light could be placed near the table in the patient rooms.

Reference: (8)Projekt Måltidsoplevelser: Forbedring af ældre småtspisende patienters måltidsoplevelse på Glostrup Hospital. Helsefonden, Glostrup Hospital, Livingplusfood aps.

[http://www.maaltidsoplevelse.dk/Velkommen\\_files/Rapport%20ma%CC%8Altidsoplevelser%20glostrup.pdf](http://www.maaltidsoplevelse.dk/Velkommen_files/Rapport%20ma%CC%8Altidsoplevelser%20glostrup.pdf)

### Case 3: Kitchen expenses when using organic, minimally processed raw ingredients at Randers Regional Hospital (DK)

**Topic:** Assessment of economic resource utilisation with organic and homemade food at Randers Regional Hospital.

**Background:** Organic food and food prepared from scratch using minimally processed raw ingredients is considered by many to be of good quality, but there is scepticism about application in practice due to resource considerations. The Patient Kitchen at Randers Regional Hospital, which prepares food for patients and staff, has its own butcher and baker and produces food from minimally processed raw ingredients and using organic ingredients to a greater extent. Likewise, production is organised as much as possible in relation to seasonal items. The vision behind the kitchen's production is "to produce tasty and homemade organic food of good quality at the right quantity for the right patient."

The kitchen prepares different types of diets all of which contain 9000 Kj, e.g., hospital diet, normal diet, super diet, and other medically prescribed diets. Additionally, the kitchen produces a vegetarian diet, a child-friendly diet, a minced diet, a diabetes diet and a customised diet.

**Aim:** The kitchen management wanted to assess the finances and quality of food produced from organic and minimally processed raw ingredients.

**Analysis:** In 2007, a collaboration between Kommunernes Revision A/S (which later was taken over by BDO Kommunernes Revision) and the Patient Kitchen at Randers Regional Hospital was initiated.

BDO Kommunernes Revision conducted an analysis, which included:

- 1) activities and finances of the Patient Kitchen,
- 2) coverage of activities and finances in the focus areas: butcher, bakery, and produce department,
- 3) coverage regarding quality.

Some of the economic parameters were: production records, time records, waste assessment, and consumption of electricity, water and heat. The analysis company prepared registration forms for data collection, the kitchen management conducted the data collection and the analysis company analysed the data. The report of the data was released in 2008.

**Results:** The analysis showed that in-house processing of vegetables and meat was a better deal for the kitchen in nine out of ten cases when special conditions were met. Use of organic products could be financed by buying minimally processed ingredients. The results showed that a number of basic food products prepared from scratch, such as breads, cakes, and meats, were cheaper compared with processed food products. On the other hand, it was found to be more expensive, e.g., to peel and chop onion in-house. BDO Kommunernes Revision concluded that the Patient Kitchen at Randers Regional Hospital was one of the cheapest public kitchens per production unit that they had ever analysed and that the homemade food, made highly of organic ingredients, had a quality aspect, which was the kitchen's trademark.

Organic percentages showed a rate of 100% for milk beverages, shelled eggs, oatmeal, wheat flour, and pasta; 90% for potatoes; 60% for meat; and 10% for other vegetables.

**Benefits by type of production:** The kitchen had a vision that the food would be reminiscent of what the patients ate at home, which could have an influence on whether the patients ate it. It gave the kitchen staff a professional pride to produce food from fresh ingredients, which rubbed off on the food sensory quality. Furthermore, the kitchen decided to avoid additives as much as possible.

The Patient Kitchen had organised its production after the direct daily ordering. The hot food was produced right up to delivery, which meant, among other things, that the amount of handling was minimised, e.g., in relation to inventories and flow within the kitchen, which saved resources as a result. Furthermore, both the amount and type of production was tailored to the daily demand, resulting in less waste.

**Next step:** The analysis identified some focus areas that the kitchen could work on, e.g., following up on the results of the price calculations to uncover time usage and production waste for the various types of production, whereby the operation could be further optimised in terms of which products were economically viable to produce in-house and which are cheaper to buy in a partially processed form - compared with the quality of the products. Furthermore, investigations of the kitchen purchasing agreements and ongoing assessment of organic percentages, as well as user studies, preferably in collaboration with other kitchen in the region.

Since the analysis was conducted and starting in 2009, the kitchen manager, Bente Sloth, has been working on homemade food and using organic ingredients at Aarhus University Hospital. She will introduce the principles and visions of a whole new kitchen department at Region Midtjylland's forthcoming 'super hospital' at Aarhus University in 2013. Conversion to this form of production requires, according to Bente Sloth, a courageous staff willing to immerse themselves into something new.

#### References:

(9) Patientkøkkenet, Regionshospital Randers og BDO Kommunernes Revision. Køkkenomkostninger. Synliggørelse af egenproduktion. Kvalitet. Maj 2008.

<http://www.okologi.dk/media/785954/k%C3%B8kkenanalyse%20randers%20rapport%20endelig.pdf%20131108.pdf>

(10) BDO Kommunernes Revision, 2008, Region Midtjylland, Regionshospitalet Randers & Grenaa Patientkøkkenet.

Prisen for den gode kvalitet. Resumé af rapport om køkkenomkostninger, synliggørelse af egenproduktion og kvalitet i Patientkøkkenet på regionshospital Randers.

<http://www.regionshospitalet->

[randers.dk/files/Hospital/Randers/Patientk%C3%B8kkenet/Foldere/resumeafrapportompatientkoekkenet.pdf](http://www.regionshospitalet-randers.dk/files/Hospital/Randers/Patientk%C3%B8kkenet/Foldere/resumeafrapportompatientkoekkenet.pdf)

## Case 4: Nordic Gastronomic Innovation Camp, part 2 – New Nordic Kitchen – food for many in the everyday

**Topic:** Development and sharing of knowledge about Nordic food among the large-scale kitchens in the Nordic countries.

**Background:** In 2004, the "New Nordic Kitchen" manifesto was formulated by eight Nordic leading chefs. The manifesto's 10 points dealt with, among other things, 1) sustainability, season, organic, 2) ethical-welfare of humans and animals and 3) the use of regional/local raw ingredients and regional dishes, 4) good taste and health. Subsequently, there was launched an initiative by VIFFOS, Danish National Centre of Excellence for Food and Health, to promote the large-scale kitchens from the Nordic countries to work with the manifesto.

**Aim:** To spread the Nordic Kitchen to large-scale kitchens that serve food to many, developing recipes with the manifesto in mind, and exchange of knowledge, ideas and experiences among the different Nordic large-scale kitchens.

**Project:** The project was conducted with support from the Nordic Council of Ministers, Diet and Nutrition Association (DK), University of Copenhagen (DK) and VIFFOS (DK). Large-scale kitchens from, among other, schools and hospitals from the Nordic regions: Greenland, Finland, Norway, Sweden, Denmark, and Iceland participated in the project by attending seminars and workshops, and interviews at the start and finish of the project. The first seminar took place in November 2008 in Sorø, Denmark, where the "New Nordic Kitchen" manifesto was introduced, and the development of recipes was initiated. The participating kitchens were to work further on developing recipes in their home countries and to use raw ingredients in line with the manifesto. The final workshop was held in November 2009 during which the kitchens made their newly developed dishes and presented them to each other.

**Results:** Participants from 10 large-scale kitchens had contributed by:

- 1) Recognising and incorporating the manifesto for the "New Nordic Kitchen" into their production
- 2) Translating the manifesto's words into actions in their kitchens
- 3) Developing recipe for large-scale kitchens.
- 4) Contributing with their experiences to other kitchens

The interviews at the initial and final phase of the project showed that the participating kitchens had applied the manifesto by incorporating it into their food production. Use of local raw ingredients was, for the most part, more predominant in the final phase of the project than the beginning.

The majority of kitchens did not particularly advertise themselves as being involved in the project in which local raw ingredients were used, but explained it to some. Most users and staff had a positive attitude towards more local food.

The participating kitchens were asked about their perception of whether the products of the New Nordic Kitchen should be locally produced. Some replied that national was equivalent to local, whereas others felt that local food should come from the part of the country where one works in, i.e., use of local specialties. As a result, the kitchens had different definitions of local food.

Before the start of the project, the Greenlandic kitchen at Qaqortoq Hospital had purchased local foods like fish, seal, whale, caribou, which they also continued with in addition to purchasing more berries and rhubarb locally rather than imported following the commencement of the project. The kitchen even focused on buying food from the local research station (8 minutes away by boat), including beets, lettuce, cabbage, and rhubarb. However, halibut was purchased in North Greenland since it was better than locally.

At the project's start, the Norwegian kitchen in the opera house's staff canteen used a local butcher and fish from a local wholesaler, whereas the vegetables came from other places in Norway. The kitchen had not changed purchasing practices following the start of the project, but tried to be more conscientious with respect to the goods they purchased.

The Swedish kitchen at Sköndalsskolen did not use local raw ingredients when the project started, but bought bread from a local bakery after the launch of the project.

The Danish hospital kitchens in Region Sjælland used local dairy products, bread, and flour, and seasonal fruits and vegetables in the beginning. However, after starting the project, they could not say whether their purchases of products were local because only products bearing specific names could be identified as Danish.

The Danish boarding school initially used cabbage and apples from a local gardener, seasonal fruit and vegetables and dairy products. Purchasing practices following the start of the project are unknown due to missing data on this.

The Icelandic kitchen at the University Hospital in Reykjavik purchased Icelandic meat and fish at the start of the project, whereas fruit was imported and Icelandic vegetables were too expensive for most of the year. After beginning the project, local meat, fish, vegetables, potatoes and other root crops were purchased depending upon the season.

The Finnish kitchen, a student restaurant and teaching kitchen, had purchased local food since 1999-2000, and had therefore not changed their purchasing practices following the project's start. They used about 15-20 locally produced products, including potatoes, carrots, different kinds of cabbage, beef, pork and milk. Some of the food products were organic.

**Identified barriers:** Most of the participating kitchens experienced some barriers in relation to purchasing local raw ingredients. They were asked, among other things, whether they experienced limitations with regards to procurement rules, delivery conditions, and lack of production of desired goods. All kitchens experienced difficulties meeting the Nordic manifesto's point about fresh raw ingredients in the winter due to shortfalls in supply.

The Greenlandic kitchen replied that they could not get locally produced eggs, milk, grain, pork, and beef since these products were imported. The locally produced smoked meat from whales and caribou were expensive and were therefore described as "luxury goods".

The Norwegian kitchen experienced procurement rules as a barrier to purchasing locally and that some local foods were too expensive. The Danish kitchen reported that procurement rules were the biggest obstacle since it was not allowed to enter into many different sub-agreements.

The Icelandic kitchen reported that there lacked procurement agreements for the public sector, and that there lacked the ability to purchase large batches for large-scale kitchens.

The Swedish kitchen said that a school in their municipality had experienced supply problems in order to be able to meet labelling requirements. All municipal canteens have 4 "demands" a year.

The Finnish kitchen was generally satisfied with both quality and quantity, but experienced limitations in regards to more expensive products, such as meat and poultry (also in relation to the degree of processing). They did not experience as many restrictions with regards to procurement rules since, as a teaching kitchen, they had the opportunity to purchase outside of the authorised supplier network at a higher price. They were therefore not as dependent as other municipal kitchens on having to buy processed products.

In this project, there have only been few kitchens involved, and therefore it is assumed that the spread of Nordic food in large-scale kitchens would go slower if more kitchens were involved.

**Possible solution strategies:** If the "New Nordic Kitchen" is to truly catch on in the North, the organisers recommended to initiate a project in which several kitchens are involved and working with the manifesto in order to end of by holding seminars in all Nordic countries with many participating large-scale kitchens. The project's strengths have been that the participants from the kitchens have met and inspired each other with different recipes for Nordic food.

With regards to procurement rules, the Danish kitchen suggested that one could perhaps set specific national requirements, and set requirements through the wholesaler, as long as they are willing to do so.

There are also opportunities for collaborative development with companies and wholesalers.

Reference: (11) Nordisk Gastronomisk innovation Camp, del 2. Arbejdstitel. Nyt Nordisk Køkken – mad til mange i hverdagen. 1.feb 2008 til 30.nov.2009.

[http://viffos.dk/\\_da-DK/id:4730](http://viffos.dk/_da-DK/id:4730)

## Summary of challenges and innovative ideas

### Challenges

Summary of challenges mentioned in the 4 cases:

- Lack of organisation regarding food and meals as well as lack of follow-up.
- Lack of support for new initiative (e.g., when incorporating local food) from several stakeholders incl. management and thus, not in long-term strategy.
- Competencies and lack thereof (in all relevant professions) for new routines.
- Healthcare staff lacking time and focus on food and meals.
- Difficulties in obtaining local foods especially in the wintertime.
- Procurement rules.

### Innovative ideas

Summary of suggested solutions mentioned in the 4 cases:

- Nutrition, food and meal issues should be included in policies and management processes.
- Establish common objectives and include all stakeholders (physicians, nurses, dieticians, kitchen staff, etc).
- Support in competency development and development of new routines (in this case especially for kitchen staff).
- Ensure that staffs have sufficient time and knowledge on the importance of the meals (through competency development and as 'meal hosts').

## Conclusion

Overall, there appears to be a number of challenges in improving the quality of meals served outside of the home in the public food sector, based on the necessary quality parameters.

First and foremost, it is essential to increasingly recognise the importance of meal. This recognition should include all professional groups who already play or could play a role in relation to meals.

This means that all professional groups should be aware of their responsibilities and that they should be allowed to act upon their responsibility. Responsibility for the quality of meals is not only in kitchens, but lies also with the management. Additionally, politicians and public purchasers also play an large role since their decisions impact all steps up until the food being served on the plate.

There should therefore be common goal, which is implemented and embedded in the organisations through all stages along the way from the kitchen to leadership. Such common goals can help to clarify the responsibilities and roles of the individual professional groups.

In order that the best possible goals can be set and that targets can be ongoingly increased, the latest professional and scientific knowledge should be accessible so that the knowledge of professional groups can be continuously updated and their skills can be strengthened. Competency development, e.g., in the

form of continuing education, professional training, and profession masters, can give professions tools for solving challenges related to raising the quality and modification of existing routines. Competency development can contribute to enhancing professional pride. Increased collaboration between researchers and practitioners can help to ensure that the latest knowledge is available to both parties and can contribute to the development of the sector. At the same time such collaboration can contribute in creation of the possibilities of developing common high level Nordic education and training offers. Increased collaboration between existing Nordic scientific communities could be one of the strategies that could come in use in the future by the New Nordic Food program.

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