

Organic foods in Danish municipal school food systems – a multistakeholder analysis of available evidence on constraints and perspectives

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Abstract

Previous studies have shown that organic supply and healthy eating initiatives in school food services share common features. Both types involves changes in supply, the collaboration of a number of different stakeholders and both include a physical food part as well as a non physical symbolic aspect. Studies have shown that introducing organic food in public food systems seems to affect the nutritional profile of the food service and anecdotal evidence suggest that organic supply forces food services to rethink menus leading to healthier menus and that introduction of organic foods often leads to adoption of a food & nutrition policy. The explanation might be that simply developing “food strategy” leads to a raise of awareness in school food services in such a way that both organic food and healthy eating tends to favor and that the notion of organic food and health eating in the minds of the decision makers is perceived as two sides of the same coin. Thus organic food supply and healthier food service seems to thrive in a symbiotic association and it appears that organic food seems to possess a “health improvement” potential that fits well with the prevailing ambitions that exists in many countries of making school settings for healthier eating initiatives.

This paper studies the case of Danish school food service. Food service in Denmark follow the same trajectory as in many other countries where school food services increasingly are being implemented on a self service voluntary market based basis. Some of these emerging services adopt an organic supply policy. However where as a number of the local school driven initiatives has proven to be able to successfully develop organic supply, a number of large scale multiple-school municipal attempts have shown to be problematic in terms of participation and in terms of perceive quality. This paper seeks to find an explanation to this difference. Why does large scale school food service with both an organic and healthy dimension experience problems and can an explanation be found by asking the different stakeholders involved in these projects? The paper uses the growing number of empirical studies on Danish school food services that have been profile as both organic and healthy as an offset for an analysis of the different stakeholders perception of the ”organicness” and “healthiness” of the initiatives. The paper uses three municipal initiatives as cases.

The paper concludes that a number of ambitious initiatives linking healthy eating and organic supply has been implemented in Denmark, but that a number of constraints seem to hinder the participation in these initiatives and thus to influence the potential “health” impact of the initiatives. It also indicates that stakeholders perceive the quality of the services quite differently and that poor perceived quality seems to be an important challenge. The paper suggest that the size of the systems and lack of agreement and common sense making among the different stakeholders in the system is an important part of the explanation. However it is important to stress that these constraints are not necessarily due to the organic nature of the supply but has got to do with other factors. The paper suggest that the market based “consumer” nature of the Danish school food service is another important part of the explanation. However the paper also suggest that the participation is dependent on the way the school food service is designed and that school driven approaches emphasizing the involvement and participation of the school in the food service seems to be superior to top down central systems.

Introduction

With over 20 years experience in “organic conversion” of organic food in the public sector, many Danish schools have gained valuable experience in how to make an organic supply chain work. However, organic food initiatives have not taken hold when it comes to larger municipal school food initiatives. Despite a significant increase in the number of school food programs, the number of schools and municipalities with food programs based on “organic conversion” is relatively limited compared to the overall number of school food programs offered in Denmark. This is the case despite the fact that “organic conversion” seems to have a “health improvement” potential and despite the fact that organic school food supply offers advantages by protecting the environment and animal welfare. In addition it has the potential to heighten students awareness about how food is made and their understanding of organic production processes. Against this background an analysis was conducted of the available written material to answer the question: “*Why is it difficult to make school food programs work, and even more so when “organic conversion” programs is attempted?*” The emphasis of the analysis is on the comprehensive municipal programs where complex supply chains and school food systems in many schools have to be made to function. The intention concerns socio-material structures of everyday school meal organization and their facilitating capacity for implementation of educational aims. The intention is not to examine the many small and local school food programs which have actually had success implementing organic school food.

Purpose

The purpose of this paper is to investigate constraints and perspectives related to development of organic “versions” of large scale multiple school meal provision in Danish municipalities. The papers aims at investigating why the apparent ambitious goals of integrating organic food and healthy eating and to “embed” the food supply into the curriculum seems to fail and why the apparent health potential of organic food seems to loose momentum. The analysis is based on existing expert literature along with empirical statements from meal planners, students and decision makers. The paper seeks to indicate potential solutions for how organic school food can be implemented in relation to the overall challenges connected with running school food programs.

Methodology

Methodologically, the paper uses an open analysis and extant literature on organic food in schools, as well as analyses of extant empirical case material. The selected case material has been restricted to cases from the municipalities of Copenhagen, Roskilde and Gladsaxe respectively, which include the following list of informants:

- Students (from three schools in Copenhagen; from the 8th-9th grades and 5th- 6th grades respectively)
- Persons responsible for school food tuck shops/teachers in Copenhagen
- Municipal meal planners (Gladsaxe, København, Roskilde)
- Local school food coordinators (“Dinner ladies” / cafeteria assistants in Gladsaxe)
- School food suppliers (123 School Food and Copenhagen)

In order to understand the way in which Danish school food programs function today, it is necessary to understand the historical background of and the traditions belonging to Danish school meals. Traditionally, the target recipients included poor citizens, who would receive a simple, hot meal from public soup kitchens, and not just school age children (7, 12). However, in 1937 these meals were

considered to be of too little nutritional value for the children, and toward the end of the 1930s (7:9), the meals were gradually replaced by initiatives serving open faced sandwiches. Starting in the 1950s, Danish schools began to pay more attention to nutritional issues in school food and to offer school milk and vitamin pills during the school day. The tendency over time has been that students have been perceived more and more as consumers in the context of school food, and from the 1980s and 1990s, school food has primarily been offered in a users-pay system (7).

Commercial school food is therefore a relatively new concept in Denmark, and the notion that the food be organic is an even newer trend. This combined challenge can be a quite a burden for schools to implement in the everyday run of things (7). This means that schools offering hot meals can be hard to come by in Denmark, and surveys show that only 20-25% of Danish public schools have an actual school food program (7). Even in those schools that do have a cafeteria, the lunch box from home continues to be popular, or the older students simply leave school grounds and buy food from stores and snack bars near the school.

The greatest motivational factor for introducing school food programs is not just improved student health and a greater emphasis on the environment by using organic produce, but also that schools are experiencing a greater number of students who neither eat breakfast nor bring a lunch pack with them to school. The promotion of organic school food programs reflects, among other things, the ambition on behalf of the municipalities to build an organic profile in their purchases. Many schools also find that organic food fits nicely within the UNESCO driven initiative of education for sustainability. According to the Danish Ministry of Education, schools have an additional purpose besides ensuring students' learning and that is to teach fundamental values about society and the role of a citizen in a stable and healthy society. The political agenda of uniting health and environmental issues through meals stems from the cultural assumption that habits, values and attitudes of adult life are to a great extent shaped in the early years of youth. Thus, the basis and motivation for organic school food programs has been that schools, and the instruction offered through them, potentially may create a framework for healthy decisions and food habits, even later in life.

Administratively, strategically and practically, publicly sponsored school food programs in Denmark have demonstrated manifold organizational shapes and sizes (2). Examples include fruit programs, school food stalls/tuckshops, school food stalls combined with cafeteria service, external catering, or school kitchens with cafeteria service. Parallel with this exists the long tradition of offering milk in school. All of these shapes and sizes of food offerings may potentially be based on organic food to a greater or lesser degree.

Case stories: Copenhagen, Roskilde and Gladsaxe

The chosen case material for this analysis has been based on empirical findings from three municipalities: Copenhagen, Roskilde and Gladsaxe. All three municipalities traditionally offer food in their schools and have, or have had, a political strategy for combining organic school food with a greater emphasis on healthy eating habits among students. All three municipalities offer both hot and cold meals for students, and in all three municipalities students/parents freely choose between available offers and pay on a per-purchase basis. However, the practical approach to the handling and organization of school food programs varies greatly.

Copenhagen Municipality. In connection with a large municipal school food project (KØSS), a large central kitchen was established. This concept has now been updated in a new system (EAT). Food is produced and wrapped in the central kitchen and subsequently delivered to the individual schools. Here, the food is unwrapped by the teacher or students in charge, reheated and sold using small food stalls or kiosks as outlets (7). Schools receive food from and return leftover food to the central kitchen. Schools only pay for the food actually sold and do not have any financial incentive to increase sales.

The KØSS project, which comprises school food programs in Copenhagen, was established in 2000 as a joint effort with the municipality's Health and Care Administration and the Children and Youth Administration (7, 12, 4). One of the overall aims for KØSS was to promote students' concentration abilities and take in information by offering students affordable and nutritional lunches at school. The implicit goal was to develop good habits and a conception of good health in children in the younger grades. To the greatest extent possible, the food on offer is tailored to the tastes, appetites and cultures of the students (3). KØSS makes use of a broad range of health promoting initiatives besides the school food programs themselves. For example by providing teaching materials and food labeling that contain nutritional information, as well as fixing serving sizes to the needs of the average child (3). A website has been constructed that allows parents to read about the various menus, organic initiatives and strategies which the municipality is pursuing. Parents also have the option of ordering food for their children over the website (7). Each school chooses a teacher to be responsible for running the school food stall, who together with the 6th graders takes care of preparing and selling the food received from the central kitchen. Most of the schools do not have an actual cafeteria or dining facilities for the children. Instead, they have school food stall from which the students can buy food. Only five out of fifty-two schools have created designated dining facilities or cafeterias for their students. The daily operation of the municipality's school food program is handled to a great extent by a school food coordinator in the central kitchen, who decides how much food should be prepared, which type of food should be prepared and whether it qualifies as organic. Individual schools therefore do not have the opportunity to pick and choose. It is the municipality who outlines the overall framework and principles for the food prepared in the central kitchen (7). Furthermore, the municipal food expert and coordinator from the central kitchen is responsible for further training of school teachers in running school food stalls. In the next instance, these school teachers are responsible for teaching and instructing the students in running the school food stalls (7).

Roskilde municipality. The municipality has signed an agreement with an organic food supplier, an external caterer, which takes care of the daily preparation and delivery of food to the schools. The schools only have to deal with selling the food in school cafeterias. Roskilde municipality has nineteen public schools with about 9,136 students. Just like Copenhagen, Roskilde has a deliberate strategy for organic food, conceived in 2001. Roskilde has been, and still is, an important main actor in the overall process of implementing school food programs and has actively sought to pursue this policy in the schools themselves (7). Today, ten out nineteen public schools are affiliated with school food programs (7). The foundation is that every school must be able to offer healthy school meals in agreement with the advice of professional nutritional experts. The school food program has been designed so that each school's administration appoints someone to be responsible for coordinating school food. This school food coordinator cooperates and coordinates closely with the school in question, the municipality and the catering firm itself. The coordinator has been specially trained with regards to foods. Each school is thus responsible for providing dining facilities for students and school kitchens, and the school's coordinator is responsible for running the school's cafeteria (7). All schools in Roskilde that provide organic school food programs receive their food from the same catering service, *Frydenholm*. This catering service deals exclusively in organic food and is privately owned. The catering service has its own professional nutritional expert and is obligated to adhere to the health and food strategies outlined by the municipality (7). Financially, the municipality has designated means to support the schools in providing meals, as well as means to further train teachers for duties in connection with the school meals (7).

Gladsaxe municipality. Most of the public schools in Gladsaxe municipality have their own school kitchens with affiliated part-timers, so-called "dinner ladies"/cafeteria assistants, who daily prepare and sell the food at the individual schools. These "dinner ladies" are hired by the school administration and have received training in organic food by a municipal coordinator. The "dinner ladies" are responsible

for planning the menu, buying groceries, preparing the food, selling it, cleaning up and financial reporting back to the school's administration in connection with the school food program. The municipality does not have any organic food strategy as such. Still, it does have a health and food strategy and actively helps individual schools establish school kitchens. Presently, school menus do not consist of as much organic food as the municipality would like (7). School teachers in Gladsaxe municipality are only responsible for the nutritional instruction of students in connection with classroom teaching. Gladsaxe has made a point of making individual school leaders, “dinner ladies”, and school nurses aware of the municipal health and food strategy. The aim is to have these three actors act as ambassadors for the strategy when communicating with students and parents (7:18). Most of the schools in Gladsaxe prepare their own food, so catering services and central kitchens are not as relevant here. Fourteen out of sixteen schools have their own kitchens (about 6, 348 students) and prepare lunch for their students. The municipality has developed a line of seasonal recipes which have been distributed to the “dinner ladies” in accordance with overall health and food strategy. Depending on the size of the school, each school employs one or two “dinner ladies”. The municipality is not the daily supervisor on the project, but has been the initiator of it, and is available if the school board or the individual “dinner lady” is in need of assistance. There is, however, a monthly meeting, where a debriefing takes place and suggestions are brought up. The municipality is responsible for paying and educating the “dinner ladies”. [7] The municipality is in charge of the training of the “dinner ladies” and has devised a handbook with guidelines on the interior of the kitchen; how to handle grocery shopping; prescription development, etc. Furthermore, at one of the schools in the municipality, there is a program where students are involved through their education in preparing the lunch for the entire school – both students and teachers. The program teaches both about hygiene conditions and general cooking skills. [7] The municipality places great importance on teaching the schools to communicate with the parents about the school food programs, so the parents understand the intention of the program and can feel a sense of shared responsibility for the success of the program. Furthermore there has been cooperation between the food industry, the municipality and the “Dinner Ladies” about developing better pre-cooked/ready made products – for example selling a healthier yoghurt in the school cafeterias.

Results

The previous section reported the barriers and problems presented by the existing empirical data. It is, however, important to understand, that there are a number of significant differences between the three municipalities' political and practical-administrative strategies for the school food programs. There is a difference between the varying political strategies for food at school, for instance there is a difference between an organic supply driven food strategy and a health-based food strategy. Furthermore, the report highlights the difference in the involvement/participation level when it comes to the school board, teachers, parents and students respectively, as well as the difference when looking at to which degree a food strategy for the school has been incorporated the school's nutrition and health education. Last but not least, there is the difference between the system itself and the actual administration and organization underlying the school meals. Whether the food is prepared in a central kitchen, delivered, heated or sold from school food stalls, or whether decentralized school kitchens have been established and 'sit down' dining facilities for the students of the schools. [7] However, there are a number of broad themes acting as barriers for school food which can be defined from the analyzed empirical material. These themes are listed below and related directly to the organizational model and specific municipality:

Theme	Copenhagen	Roskilde	Gladsaxe
	Central municipal production	External commercial production	Decentral production at school
Price, Portion Size, Selection, Wrapping, Taste and Quality	X	x	X
Ordering and Payment	X	x	X
Time, Socializing and Dining facilities	X	x	
Administration and Communication	X	x	X
Ownership and Shared Responsibility	X	x	X
Parental Influence	X	x	
Organic vs. Conventional?	X	x	X
Integrated Education	X	x	

Similar for all three municipalities, when examining the analyzed material, is that less than a quarter of the student body in all three municipalities actually use the school food program. [7] This pattern seems to be identical in spite of the relatively different approaches to the implementation and maintenance of the school food programs in practice. The analyzed material thus shows that basically the same themes are in play in all three municipalities. Only Gladsaxe municipality can, with its unique model of decentralized kitchens, dining facilities and a degree of student involvement, deal with the themes of socializing, dining facilities and integrated education. However, it is important to note that the empirical case material and the basis for the defined barriers and main themes to a great extent are based on studies made in the Copenhagen municipality and among a broad array of informants. Contrary to this, the empirical material from Gladsaxe and Roskilde municipalities is more limited.

Discussion

The data available shows that developing and operating a large scale municipal school meal service successfully under the conditions found in Denmark is a serious challenge and that it is especially challenging in an organic version. Taken into account that a number of school driven meal provision systems based on organic supply have proven to be able to survive, the findings suggests that it is the “architecture” and the size of the municipal systems that is challenging.

The presence of a large number of stakeholders with different views and expectations and the need to make a complicated supply chain work are some of the problems as well as the in-built weakness of the school provision- its consumer orientation. However data also suggest that even large scale municipal systems show differences in its appeal to a broad range of involved stakeholders and that the Gladsaxe approach with decentral kitchens seems to create more ownership and alignment of expectations.

The data in addition suggests that there might ways to enhance the possibilities of organic supply in schools. These are

- Greater focus on the social needs among students in relation to school meals:
- Greater focus on the administrative communications systems behind the school food:

- Focus on certifying organic school food:
- Greater focus on integrated education in health issues, ecology and food culture:

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