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From policy to plate: Barriers to implementing healthy eating policies in primary schools in Wales

Sue Moore[a,*], Simon Murphy[a], Katy Tapper[b], Laurence Moore[a]

[a] Cardiff Institute of Society, Health and Ethics, School of Social Sciences, Cardiff University, Cardiff, CF10 3BD, UK
[b] Department of Psychology, Swansea University, Swansea, SA2 8PP, UK

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ABSTRACT

Objectives: School meal improvement is a major component of UK government policy to improve children's diets. This study investigated the pragmatic influences on local education authority (LEA) and primary school policies affecting the food available during school mealtimes, together with the professional practices of catering staff that further influence the food served.
Methods: A qualitative case study methodology involving interviews with primary school headteachers, catering managers and staff in a Welsh LEA.
Results: Whilst reflecting the primary objective of national policy with respect to the nutritional content of the school meal, LEA and school policies were also influenced by multiple, competing interests including parental views, pupil's food preferences or organisational objectives, such as protecting school meal uptake. Tensions existed between food availability and choice such that menus incorporating choices based on children's preferences were viewed as facilitating service viability and prioritised over promoting healthy eating.
Conclusions: Higher level policy interventions may be limited in their effectiveness if they are undermined by a lack of attention to lower level factors that may compromise their successful implementation. The critical role of school meal providers and school cooks needs to be recognised and strategic partnerships developed to minimise tensions between improved nutritional standards and school meal uptake.
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1. Introduction

The reduction of obesity and improvement of diet and nutrition is one of the principle objectives of health promotion programmes in the UK [1–3]. Due to its association with health in adulthood, the programmes view childhood nutrition as a priority and nutrition in schools as critical. The impetus in transforming school meal provision began with Scotland's 'Hungry for Success' initiative [4] followed by the 'Turning the Tables' [5] and 'Appetite for Life' [6] programmes in England and Wales, respectively. The revision of nutritional standards for school meals was central to each one, whilst 'Turning the Tables' introduced the concept of 'choice control' whereby healthy options are promoted and unhealthy ones are restricted by manipulating food availability [5].

The delivery of nutritional programmes in the UK falls within the remit of Local Education Authorities (LEAs) where school meals are subject to compulsory, competitive tendering [7]. In Wales, 97% of primary schools are catered by the LEA in-house provider and in Scotland the figure is 95% [8]. However, in England, the figure is lower (68%) since outsourced providers (17%) or schools themselves (10%) may provide the catering [9]. This multi-layering of organ-

* Corresponding author. Tel.: +44 2920 870285; fax: +44 2920 879054.
E-mail address: Moores4@cardiff.ac.uk (S. Moore).

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isational involvement is a common feature of programmes that originate at national level [10], which potentially subjects the original programme to additional priorities at each decision making level. For example, competitive tendering is associated with a reduced focus on diet and health and an increased focus on cost control and income generation [8]. Since the commercial viability of school meal provision depends, in part, upon the extent to which food availability matches pupil demands [11,12], unpopular, but possibly healthier, foods may be removed from sale [8].

This uncoupling of programme design from programme delivery means that tensions can exist between management groups and individuals regarding the details of the resultant working practices [13]. These multilayered processes whereby individual experiences and beliefs influence local policies and/or practices have been referred to as 'ecologies of practice' [14]. Ecologies of practice also involve a commitment to ideologies or formulations of best practice which can lead to a preferred style of working or judgements of how best to engage with particular individuals or contexts. This suggests that the behaviour of individuals engaged in policy implementation may be critical to its success. This is particularly pertinent for nutritional policies since the social context in which eating is embedded is known to contribute to the development of food associations [15]. For example, mild levels of coercion can lead to reduced consumption of the food concerned [16] whereas food presented in a supportive context can increase liking for that food [17].

It has been recognised that the effectiveness of health education and behaviour change interventions targeted at individuals is often limited due to the salience of higher level social, contextual, environmental, community or policy factors [18]. As manipulation of the food available at school mealtimes is a prominent feature of the UK health promotion agenda [19], the aim of the current study was to investigate the effects of ecologies of practice on the transformation of national policy on food availability at school mealtimes into practice. The research aims were: (a) to explore the pragmatic influences on formal or informal LEA and primary school policies that affect the food available during school mealtimes; and, (b) to explore the professional practices of school catering staff that influence the food made available and served at lunch time.

Box 1: Key points from the Appetite for Life Plan.

The Appetite for Life programme defines the strategic direction and actions required to improve the nutritional standards of food and drink provided in schools in Wales. It uses as its basis the UN convention on the rights of the child and was devised following a consultation exercise that included children's views. Its key points relating to food availability during school meals are:

- Revised and stringent minimum nutrient standards for school meals.
- Improved uptake, particularly of free school meals.
- Monitoring of the effect of revised nutrient standards on uptake.
- To provide caterers with the skills to prepare and promote healthy food choices.
- To ensure consumption of the healthier meals offered by working with children.
- To encourage schools to draw up school food policies.

Source: Welsh Assembly Government (2007).

Box 2: Key points from the Appetite for Life Plan.

- To follow the national guidelines for nutritional standards.
- To provide a piece of extra fruit, salad and bread daily.
- To provide a cold meal option.

Sample from the published daily hot meal menu:

Chicken wrap	Vegetable choice	Iced ginger cake
Pasta Napolitan (vegetarian)		Fresh fruit
Oven baked herby potatoes		Low fat yoghurt

Sample cold meal menu:

Filled rolls	Crisps	Fruit
Sandwiches	Juice drink carton	Dessert
Baguettes	Bottled flavoured water	
Salad bowls		

Source: Local Authority web pages during July 2007–April 2008.

2. Materials and methods

2.1. Design

A qualitative methodology was undertaken due to the exploratory nature of the study. This consisted of a case study of an LEA in Wales to ensure uniformity of national and local policy context. The national policy was the Appetite for Life (A4L) programme [6,20] whose key points relating to food availability (as opposed to other objectives such as sustainable procurement) are outlined in Box 1 . The LEA school food policy relevant to the study period (June 2007–April 2008) was published on the authority's web pages, as were the Primary School menus (see Box 2). Ethical approval was obtained from Cardiff University School of Social Sciences ethical committee and informed consent was obtained from all participants in the study.

2.2. Study sample

At LEA level, six interviews were conducted with senior catering managers, together with representatives from the LEA's multi-agency A4L working group. Schools were recruited by stratifying the LEA's 83 primary schools into socio-economic quartiles based on Free School Meal (FSM) entitlement [21]. Recruitment order within each quartile was determined using a random number generator. The final sample included 11 schools, its size being defined by theoretical sampling [22]. The headteacher ($n = 11$)

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and cook-in-charge ($n = 10$) in each school were interviewed (one cook catered for two of the participating schools).

2.3. Procedure

All interviews were semi-structured using a tailored interview schedule for the different categories of interviewee. The cook-in-charge interviews took place at convenient times in working kitchens and occasionally, the cooks invited kitchen assistants to verify, or add to, the responses that they gave. Interviews were transcribed and NVIVO Version 2.0.163 was used as an analysis tool. Codes were added at the 'manifest' level of what was said, and at the 'latent' level where meaning was inferred from the words spoken [23].

3. Results

3.1. National policy on school food availability

Improving the nutritional standards of food provided in schools in Wales was the principal strategic objective of the national policy. A lesser objective was the need to improve school meal uptake, primarily with respect to those eligible for free school meals as a means of tackling child poverty. Although diet was seen as a means of improving child welfare, explicit references to child-centred eating behaviours were confined to the need to ensure children consumed nutritional food. There were then three levels of influence through which the national policy passed enroute to becoming practice. The first was the LEA catering service, located within the education department, from which all the primary schools that offered school meals received their food. Thereafter, at school level, school meal policies could be formal or implicit by virtue of practices in place in the school. Although the A4L action plan was working towards formal Food and Fitness policies in schools, this was not a requirement at the time of the study. The third level of influence was the catering staff, comprised of the cook-in charge and kitchen assistants responsible for food preparation and service. The national policy evolved as it passed through these socio-ecological levels as each included priorities salient at that level (see Fig. 1) which often reflected the influence of additional sources (e.g. parents not wishing children to be offered cold lunches).

3.2. LEA priorities

3.2.1. Nutritional balance and uptake

Nutritional balance remained a dominant objective within LEA policy by virtue of the emphasis placed upon it within national policy. Whereas, improving *free* school meal uptake had featured in national policy, it was not mentioned by any of the participants in the study, at any level. It was the closely related concept of overall school meal uptake (i.e. paid and free) that influenced LEA policy due to the economic considerations of running a school meal service:

> "Nutrition and balance have to be the king pin really because that's where the legislation is coming from, but at the same time we've got to focus on popularity of dishes as well. If the numbers drop because the children don't like the food then we can't sustain the business . . . This authority is not in a position to fund central government's policies". (*Catering Manager*)

Thus, the need to maintain the school catering service as a viable business ensured that uptake had to be considered at the outset, *before* implementation. This contrasts with the national level where the emphasis was to look at the effects of the policy on uptake *after* implementation. One means of determining ways to protect uptake was to monitor the experiences of other LEAs in England as well as Wales.

3.2.2. Choice on the menu

The lunchtime menu published by the LEA was the end result of its food availability policies. A three-weekly repeating cycle of meals was offered with two choices of entrée, side dishes and desserts, plus vegetarian and special dietary options (see Box 2). In addition, fresh salad, extra bread and a piece of fruit were made available. Including a choice of entrée on the menu was a policy decision made at LEA level that was viewed as a facilitator to the achievement of its strategic goals (i.e. to provide a nutritionally balanced meal whilst maintaining uptake and ensuring the children ate something):

> ". . .if you think well I'll put beef cobbler on or nothing else and they're going to have to have it, well yes, they might get used to it, but do you want to take the risk of them either going away and not having eaten anything or they'll decide next time they'll bring sandwiches." (*Catering Manager*)

However, providing the children with a choice introduced the risk of restricting the children's experience of foods since they always opted for the food they liked.

3.2.3. Child welfare considerations

At LEA level, a child-centred ideology was more prominent than at national level:

> ". . .we all are here for the good of the children and if you lose sight of that focus you may as well go home". (*Catering Manager*)

This was exemplified by recognition of the role of school lunch in sustaining the child throughout the day, as opposed to its potential contribution to long term health. It was not considered acceptable to risk children going hungry as a result of them not wanting the food that was available at lunchtime.

3.3. School priorities

3.3.1. Nutritional balance and uptake

Although some headteachers mentioned the requirement for nutritionally balanced school meals, school meal uptake was not mentioned by any of them. School meal provision did not fall within their direct responsibility and

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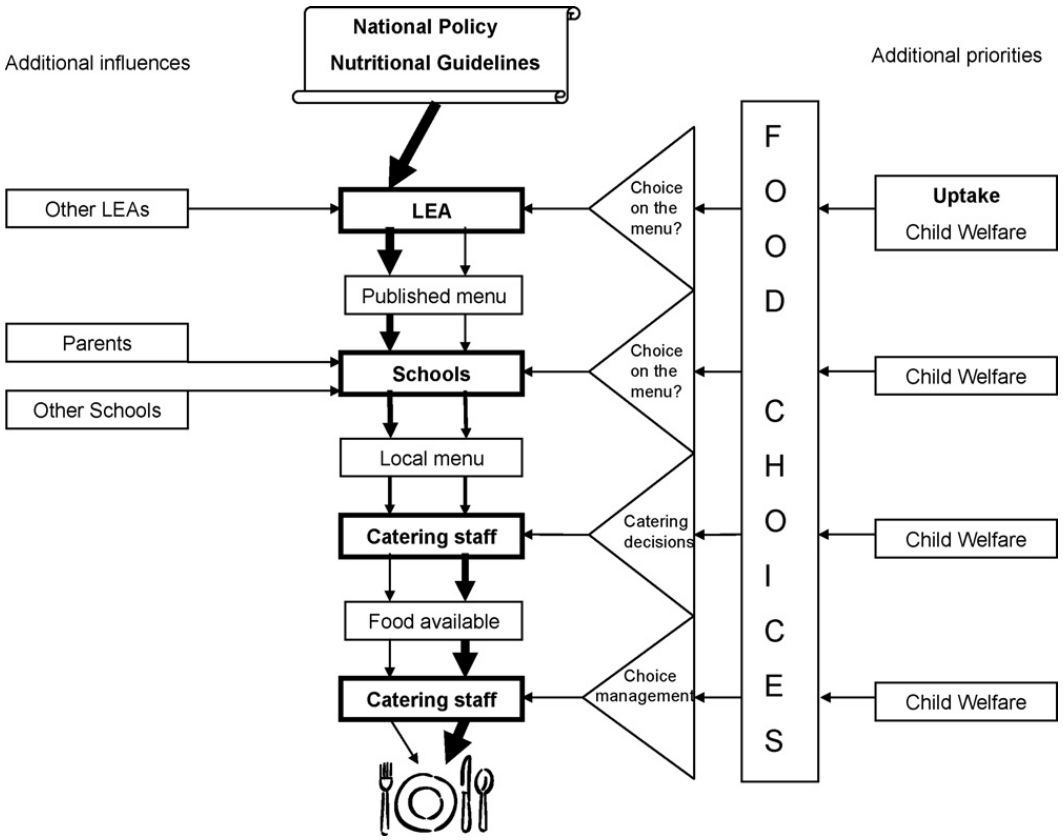

Fig. 1. Transformation of the food availability policy.

their narratives reflected a greater concern with the needs of the children in their care.

3.3.2. Child welfare considerations

Whereas references to child welfare in national policy were in the context of addressing child poverty, headteachers would use explicit references to eating behaviours when talking of their school meal policies:

> "It's not a hard and fast rule but is to ensure that children actually eat their meals and eat the meals in the correct order." (*Headteacher*)

The division of responsibility between home and school also provided an example of how the individual beliefs of the headteacher could influence school policy:

> "when you get to something, and I'm going to use the word complicated, as eating habits, it varies from home to home and it's very difficult for us, 5 days a week for a fraction of the year to encourage the children to eat something that they haven't been encouraged to eat at home" (*Headteacher*)

3.3.3. Choice on the menu

The final decision as to whether the menu that was actually offered to the children included choices rested with the school. Unlike at LEA level, it was not a decision that was made to preserve uptake, it was made by considering the welfare of the children:

> "... it's determined by the school and the governing body. If they don't feel that the little ones can cope, or they are such a large school that they just haven't got time to let them choose, we will listen to them." (*Catering Manager*)

Similarly, the final decision regarding the provision of cold meals in addition to hot meals also rested with the school and could reflect the views of either the headteacher or the parents.

3.4. Priorities of catering staff

3.4.1. Nutritional balance and uptake

Preservation of school meal uptake was only mentioned by one cook. The need for catering staff to actively consider nutritional balance was not common as it was so heavily entrenched within the policy making that preceded the development of the published menu. However, if a menu item was really unpopular or not available due to supply problems, it could be substituted for another of equal nutritional value. Some cooks would actively seek ratification from LEA area management before doing this, others would rely on published guidelines.

3.4.2. Child welfare considerations

A strong child-centred ideology was evident in the cooks' narratives that demonstrated a concern for the welfare of individual children, similar to that that was seen at

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school level and in contrast to the more generic concerns found at national and LEA level. This could influence the food staff offered the child and most commonly occurred when the child could not be persuaded to take an adequate meal such that the priority would switch from the serving of a balanced meal to ensuring that the child did not go hungry:

> "I'll say well 'if you really don't want this will you have a ham or a cheese or a whatever roll' and they'll probably say 'OK' and then that's the problem solved and then I'll tell them they can go and have salad and they can have a pudding of their choice as well. So at least you know they are having something to eat." (*Cook*)

3.4.3. Practical catering decisions

The menu that was offered in a particular school on a particular day not only reflected the various policy decisions that preceded it (see Fig. 1) but also a range of practical decisions made by the cook-in-charge. For example, the decision to offer a choice of menu options would introduce an additional level of complexity regarding the quantities of food to be prepared. This was at the absolute discretion of the cook who would be influenced by factors such as the need to reduce waste, knowledge of how popular each dish was, and the desirability of ensuring that the last children to be served had the full range of choices. Although portion sizes were stipulated in LEA guidelines, service staff would use their discretion regarding how much to serve the children balancing waste avoidance against the need to ensure that sufficient food remained available for all.

On days where the LEA menu stipulated items such as 'vegetable choice' or 'seasonal potatoes', the cook-in-charge would use their discretion as to what was made available. Occasionally, seasonal or market variations in price or availability would result in the LEA making a recommendation. Alternately, the cook could use their knowledge of the children's preferences. In some schools, although the free salad was unpopular, it was still made available as stipulated by LEA policy. In others, it was so popular such that an extensive range of salad items was offered which exceeded the amount or variety that the menu intended, resulting in tensions between the school, the cooks and the LEA:

> "There is conflict very often between county catering and the kitchen in that they say 'You mustn't serve vegetables and salad'. I've said, 'Well I'm not happy with this, this might be the only vegetables or the only salad that these children get'. (*Headteacher*)

3.4.4. Active management of food choices

Whilst serving the food, the catering staff would adopt a strategy to manage the children's choices across the major food groups/menu categories. Three different approaches were found: (a) to assist the child to make their choice whilst leaving the final decision with the child:

> "So we'll try and let them choose what they want but try and get them to take more than one thing. And they are getting better." (*Cook*)

(b) to allow the child freedom of choice:

> "A lot of children here don't eat. Although they are getting what they asked for, they still don't eat it. There's quite a lot of waste here." (*Cook*)

and, (c) to constrain the freedom of choice by mandating what was served:

> ". . .we actually put a portion of everything that's there on their plate because if we asked them 'Do you want this?' they'd all say no" (*Cook*)

Selection of an approach could be influenced by individual child differences, or the popularity of the food group/menu item balanced with its nutritional significance. Preferred approaches tended to reflect the personal styles, beliefs and experiences of the catering staff rather than being specified in any formal policy or disseminated by formal training programmes.

4. Discussion

This study examined how food availability during primary school meals was influenced by policies at LEA and school level, and also by the practices of school catering staff within the child's immediate social context. A complex route from policy to practice existed reflecting that previously found in mainstream education [10]. Policies at each level complied with those higher in the organisational hierarchy, i.e. national policy directly influenced LEA policy which, in turn, directly influenced school policy. This ensured that the stipulations of national policy were considered during everyday working practices, but did not ensure that they were the dominant or sole consideration. This was due, in part, to each organisational level considering and incorporating additional policy items commensurate with their specific terms of reference. For example, LEA policies included commercial considerations such as protecting school meal uptake and school policies reflected parental wishes. In addition, each organisational level would learn from the successes or failures of its peers as illustrated by the decision of the study LEA not to remove choice from school menus based on the experiences of another. As depicted by the vertical arrows in Fig. 1, the relative proportion of national policy objectives decreased compared with the proportion of other priorities in each sub-ordinate policy making level.

The food made available during a particular lunchtime in a particular school represented the transition point where policy became practice. At this final stage in the process, the cooks-in charge had complete discretion regarding many of the specifics of what was offered. They were the final arbiters of 'ambiguous' menu items such as 'seasonal' vegetables; the substitution of unpopular items with more popular ones; the quantities of food that were prepared; portion sizes; and serving strategies. These individualised practices illustrate tensions that can exist for professionals who are required to both implement policies and resolve practical dilemmas [14] that may result in policies being mistranslated into practice [10].

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As the various organisations and individuals considered and modified the national food availability policy within their various frames of reference, there was one factor that consistently warranted particular consideration – the issue of food choices (see Fig. 1). At LEA level, policy makers were aware that menus needed to include items children were likely to choose otherwise they could choose to opt out of school meals altogether. Thus, during the policy transformation process, the children's eating behaviour afforded them an indirect but influential voice by virtue of their status as consumers [11,12] which could threaten the financial viability of the service and, ultimately, its existence as a health promotion setting. Consequently, lunchtime menus incorporating choices were viewed as an enabler for service viability, whilst also recognised as a barrier to the promotion of healthy eating behaviours by limiting children's exposure to foods. On balance, for the study LEA, the merits of choice as an enabler outweighed the risks of choice as a barrier to healthy eating.

Food choices also contributed to policy transformation at school level and at the level of the catering staff. Some schools opted not to offer choices on the menu if they felt it was impractical, possibly due to the children's abilities or constraints within their lunchtime facilities. Similarly, children's choices influenced many of the catering decisions made by the cooks during food preparation. Finally, at the point of service, active management of the children's choice behaviours with respect to the foods that the various policies rendered available was a feature of the social interactions between catering staff and the children. How, or if, this was done reflected the personal styles of the staff rather than policies or guidelines. The style could be permissive (allow free choice); authoritarian (mandate a balanced choice); or authoritative (advise the child). This use of a preferred style within food related interactions has previously been observed in studies involving parents [24]. This short period of social interaction between the server and the child was the final, critical factor in the determination of the nutritional content of the plate of food that the child actually received. There was little support or guidance with respect to this aspect of the role of catering staff. Techniques that can be used to good effect with respect to eating behaviours in such social contexts, usually involving parents, have been widely studied [25]. For example, it is widely recognised that facilitating repeated taste exposures to unfamiliar foods is critical for developing healthy, independent food choices [26]. It is also known that catering staff, as well as lunchtime supervisors, readily, but inconsistently, use these techniques during social interactions within the dining hall [29]. Given the disappointing results of previous short-term school based nutritional interventions [27,28], the recommendation is that interventions that synergise with current food transformation programmes are designed to promote the active, ongoing management of children's food choices by serving staff using these previously studied techniques. This should help to ensure that children learn to consume the nutritionally balanced lunch that is made available to them.

To undertake a case study of a single LEA within Wales was a methodological decision to ensure a uniform national and local policy context. It is acknowledged that this may limit the applicability of findings beyond the host LEA and country. However, there are numerous examples of similar phenomena occurring elsewhere. The same issue regarding choices on secondary school menus has been highlighted by media reports concerning the implementation of revised nutritional standards in England [30]. Northern Ireland is monitoring the experiences of the three other UK countries (Scotland, Wales and England) in advance of amending their nutritional standards [19]. Therefore, on a conceptual level, this study introduces two generic sources of variation as national policies regarding food availability at school lunchtimes are transformed into practice: (a) competing priorities and multiple external influences at the various organisational levels of service delivery; and (b) individual influences arising at the point of food preparation and during the interpersonal transactions between serving staff and the children.

5. Conclusion

The main conclusions and recommendations from the study are summarised in Box 3 . The food that was available for the primary school meal was dependent on national policy and subsequent multi-layered processes whereby organisational and individual experiences and ecologies of practice influenced local implementation. This suggests that higher level policy interventions may be limited in their effectiveness if they are undermined by a lack of attention to lower level factors that may compromise their successful implementation. Effective public health interventions require a multi-level systems approach to understanding the process of change, potential barriers and facilitators, and necessary supporting actions at

Box 3: Transforming school meal policy to practice—summary and recommendations.

Implementation barriers:

- Multiple, competing interests at the organisational levels of service delivery.
- Tensions between practicalities and policy objectives.
- The choice dilemma—align menus with existing choice preferences to protect school meal uptake OR restrict unhealthy options to promote healthy eating?

Opportunities:

Use a multi-level systems approach to:
- Understand implementation barriers/facilitators.
- Identify supporting actions required.

Priorities:

- Develop strategic partnerships to collectively oversee policy implementation.
- Complementary nutritional interventions that support children's acquisition of wider range of (healthy) food preferences.

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different levels of the socio-ecological framework [18]. Therefore, the critical role of school meal providers, school cooks, lunchtime supervisors and the children themselves needs to be recognised and strategic partnerships developed to minimise the perceived and real tension between improved nutritional standards and school meal uptake. Without such a focus the likelihood is that school meal policy will not have the desired impact on children's dinner plates.

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