Food for Life

healthy, local, organic school meals

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Soil Association

in partnership with

Organix
The home of natural foods

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Contents

Foreword

"Excellence is not an act but a habit."
Aristotle

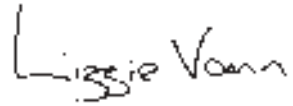
For more than two decades, minimal regulation has meant that attractive, tasty and nutritious school meals made from quality ingredients have been sacrificed in favour of competition, convenience and cost. While limited steps were taken by Government in 2001 to reinstate standards for school meals, commercial pressures and narrow definitions of 'Best Value' continue to drive down the quality of the food offered to and eaten by children at school.

The provision of school meals need not contribute to ill health, social problems at school, environmental degradation, animal suffering, rising imports and rural economic decline. Through greater use of less processed, more local, fresh and organic ingredients, vitamin and mineral intake could be raised significantly while fat, sugar, salt, pesticide residues, heavy metals, antibiotics, colourings, flavourings and other food additives could all be reduced in children's school diets.

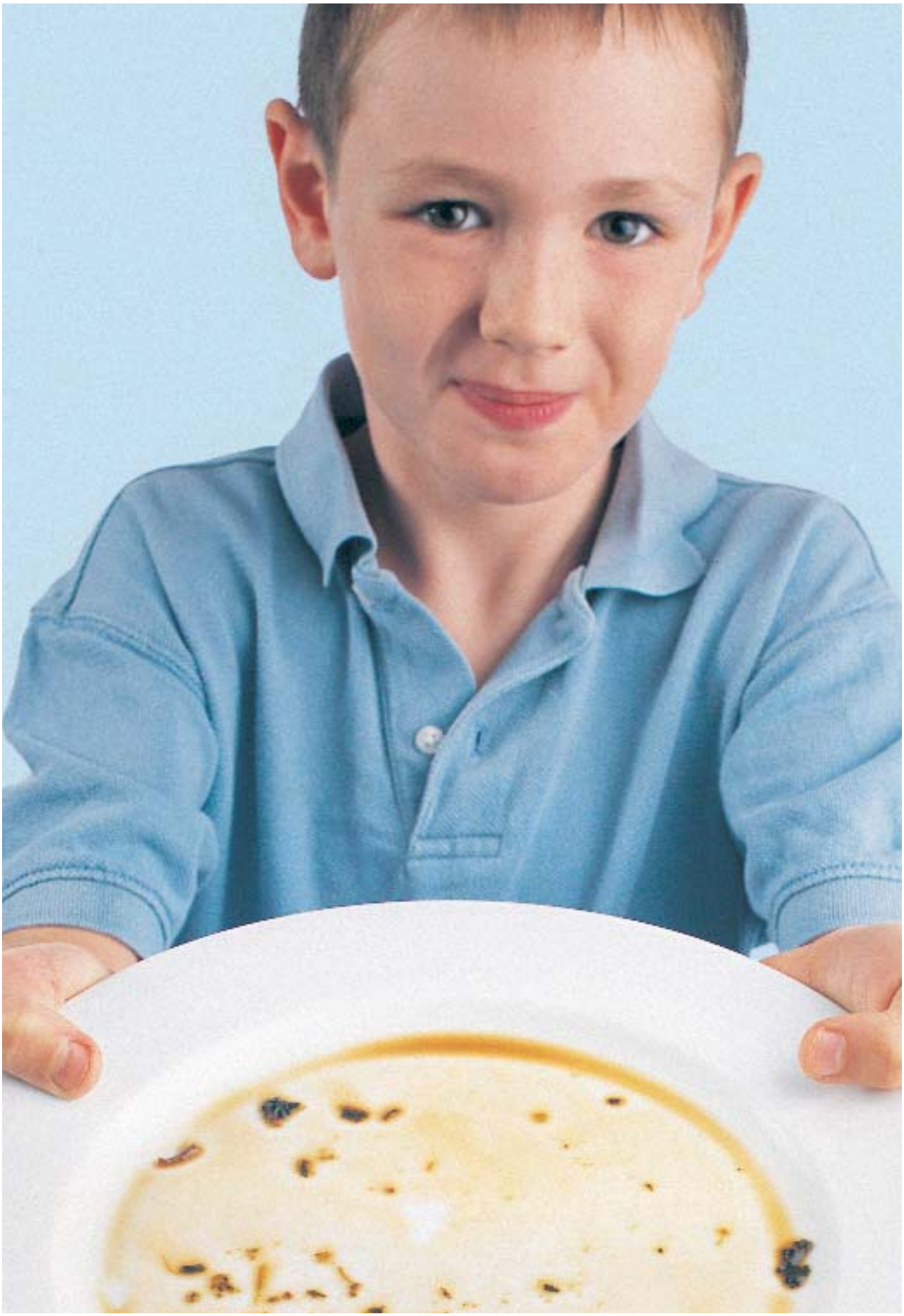
Raising the quality of school meals in this manner would deliver far reaching benefits for public health, agriculture, the food industry, rural employment, food safety, education and culture. Such a policy would help deliver on issues already identified as a priority by a number of Government bodies and initiatives, including the Policy Commission report on *Farming & Food – A sustainable future*; the Cross-Government Sustainable Procurement Group; the Strategy for Sustainable Development and the Organic Action Plan.

There has never been a stronger set of reasons for Government to make a decisive, far reaching and cross cutting intervention to upgrade school meal provision.

Patrick Holden
Director
Soil Association



Lizzie Vann
Founder and managing director
Organix Brands plc



Executive summary

The case for decent school meals

Children have a right to a decent school meal at the heart of their educational day. In 1944, the creators of the welfare state acknowledged that Government has a duty to address this need. With that recognition a universal school meals service flourished until the 1980 Education Act rendered school meals a non-essential provision and erased any duty to serve food 'suitable in all respects as the main meal of the day.' Other changes subsequently transformed a free education service into a commercial operation where, despite the recent imposition of new school meal standards, cost remains king above all other measures of value.

The obesity epidemic

Childhood overweight and obesity are rising at epidemic rates. The provision of healthy, high quality school meals is central to any effective national preventive paediatric health care strategy and to a well founded, socially inclusive primary education system. For our youngest citizens to become healthy and discerning adult consumers aware of what it takes to eat well, truly imaginative 'seed-to-plate' food education in all relevant areas of the school curriculum must enable them to connect with the natural world and the foundations of the food chain. Nothing less will secure a sustainable future for British food and farming or prevent the emerging disease burden now threatening the well-being of an entire generation.

Cheap versus good

A snapshot of current primary school food, based on summer term 2003 menus from a range of schools served by various catering organisations, confirms that the same trends now dominating choices in the supermarket and displacing fresh food from domestic kitchens are eroding the quality of school meals. With profit in the driving seat, 'convenience' foods have replaced time, labour and skill devoted to tasty and wholesome dishes made from scratch. At the same time, the share of total spending given over to

fresh ingredients continues to fall. Despite the introduction of food-based nutritional standards across England and Wales in April 2001, the latest available evidence gathered from three independent sources suggests that primary school children continue to eat very badly.

Fat, salt and sugar

Most primary school kitchens still provide a standard meal (as opposed to a cafeteria service). The majority of the menus used offer children a low-grade diet of dematerialised fish, mechanically recovered meat and poor quality produce containing pesticide residues. Regardless of the healthy eating messages promoted in the classroom, most menus are dominated by 'cheap' processed and 'fast' food items packed with fat, salt or refined sugar, laden with artificial flavourings, colourings or preservatives and precariously low in essential nutrients.

School meals for around 35 pence

This pattern reflects how little is spent on ingredients under the 'Best Value' approach to the management of school catering contracts. Where a hot meals service survives, 'food services operatives' on short-term, low-paid contracts have increasingly replaced skilled cooks. Local authority catering organisations (which do not have to make a profit) commonly spend on average around 35 pence per child a day on primary school lunch ingredients. In areas where wage costs are higher, the food procurement chain more extended, or the provision contracted to a private company (that must generate a profit margin) this figure can be as low as 31 pence.

Better meals in jail

In contrast, the prison service currently spends £1.74 per prisoner a day on food ingredients. Assuming that lunch in either institution should provide around 35 per cent of daily nutritional needs and cost a proportionate amount, this figure suggests we spend roughly double (60 pence per lunch) on prison food compared to school meals (over and above any fresh ingredients supplied free to prison kitchens directly from prison farms). The inadequacy of 31 to 35 pence for school meal ingredients is well illustrated by the Local Authorities' Caterers Association's (LACA) annual contest to find the nation's best school cook. In 2002 competitors were told they could spend up to 80 pence per head on ingredients for "a balanced two course meal."[1]

The challenge is huge

Parents and children are rejecting poor quality school lunches. The latest survey data from the Food Standards Agency (FSA) confirmed in September 2003 that more than half of all primary school pupils now bring a packed lunch. With around 4.4 million children attending nursery and primary school for 190 days a year, and average school meal prices running at around £1.60, this suggests that upwards of £670 million a year in turnover is being lost this way from the primary school meals system. As numbers fall viability declines, precipitating the withdrawal of hot school meals or the closure of kitchens, especially in smaller schools. This further disadvantages children entitled to free school meals by sentencing them to a bag lunch for what was the main meal of the day. Everybody loses from this spiral of decline.

Breaking the spiral of decline

To break this vicious cycle, Food for Life presents an alternative model in which predominantly fresh, local and organic food prepared from scratch delivers the safest, most nutritious and sustainable lunches possible to primary school children. This model has been tested by a small group of schools involved in a pilot project begun during the summer term 2003. To build on the progress made by these schools the Soil Association challenges catering organisations and schools to adopt the Food for Life targets designed to reform menus and supply chains to make school meals 30 per cent organic, 50 per cent locally sourced and 75 per cent unprocessed by weight of ingredients.

Local and organic food

Getting local and organic food into UK schools requires reform of public and private sector catering procurement. A few local authorities already realise this and have begun to change how they purchase ingredients. Contrary to claims made by much of the catering industry, this activity does not breach EU purchasing rules. Indeed, it is also already taking place in several parts of Europe. In Italy it is now possible to find over 300 examples of organic school meals schemes and approximately 100,000 children eating organic food at school every day. At least six other EU countries also have pro-active public sector catering initiatives built on priority for local and organic food in pursuit of the multiple economic, social, health and environmental gains delivered by this approach. With support and sufficient new funding from government, all schools and local authorities could deliver wholesale improvements in school meals through tighter standards, better staff training and facilities, the development of local supply chains and by spending more money on better quality and organic ingredients of known provenance.

Scotland shows the way

The Scottish Executive has already committed an extra £63.5 million over three years to fund a programme of school meal reform. This includes quantified nutritional standards accompanied by a wide ranging programme of kitchen and dining hall refurbishment destined to benefit all state primary and secondary pupils (in line with costed recommendations made to the Executive in the *Hungry for Success* report).

Spending more on quality ingredients

Producing a fully costed budget for the reform of all UK primary school meals is beyond the scope of this report, but it is estimated that a similar programme for English and Welsh primary schools would require an initial commitment of no less than £200 million per annum. This figure would provide enough money to double the current average ingredient spend for an initial target of 70 per cent of all English and Welsh primary school children. Further expenditure in England and Wales will also need to cover improvements to kitchens and dining halls, catering staff and teacher training, the development of local supply chains and farm visits alongside the gradual expansion of school meal uptake to all primary school children.

No new policy required

The reforms proposed in this report do not demand new policy or legislation but offer a litmus test for the local delivery of integrated measures on health, food, education, farming and the environment identified as priority areas for concerted action by the Government.

Government health targets

Diet related illness is already a greater problem than smoking, costing the NHS at least £2 billion every year. Government health targets aim to cut consumption of calories, saturated fat, salt and processed sugar in order to reduce levels of overweight and obesity – especially among children. These targets are essential to curb the longer-term prevalence of coronary heart disease, strokes, hypertension, diabetes and cancer. The National Fruit Scheme is one recent initiative built on the premise that positive eating patterns established in early childhood can reduce disease in later life.

Sustainable development

The Government's strategy for sustainable development[2] emphasises the importance of: local sourcing to reduce transport mileage and packaging waste; on-site school meal preparation to curb energy usage and waste;

re-skilling for catering staff to create new jobs and more customer choice; the eating of healthier food; sustainable (organic) food production systems with reduced environmental impacts and greater local trade to retain more money in local and regional economies.

Sustainable food and farming

The recently published report, *Farming & Food – A sustainable future* from the Commission chaired by Sir Don Curry made detailed recommendations for the development of a sustainable food production strategy addressing all parts of the food chain. This report has been accepted by the Government. On children and their education, the Curry Commission called for the Department of Environment, Food and Rural Affairs (Defra) to establish a pilot scheme of demonstration farms by the end of 2002. Curry also called on all local education authorities to ensure every school child gets the chance to visit a working farm at least once during their primary education.

The Government's Organic Action Plan (OAP)

The OAP puts into practice some of the Curry Commission recommendations. It states that "Organic farming is better for wildlife, causes lower pollution from sprays, produces less carbon dioxide, generates fewer dangerous wastes, operates to high animal welfare standards and increases jobs in the countryside."[3] In line with the recommendations of the Cross-Government Sustainable Procurement Group made in 2002, the OAP encourages the public procurement of locally produced organic food. The recommendations in this report address this cross cutting policy agenda. Directed at Government and the school catering industry they are deliberately succinct. This simplicity should not be misconstrued – they represent a huge challenge to all engaged in education, school catering and farming and form a framework from which a wide range of further detailed policies and measures inevitably follow.

What the Government must do

All children at primary school have a right to healthy, wholesome and enjoyable school meals – made from fresh, high quality ingredients – at the heart of their educational day. The Government must take six key actions. The Department for Education and Skills (DfES) must take the lead, given their responsibility for the well-being of children in schools. Progress in this area should be one benchmark by which a primary school's achievements are judged.

Standards

DfES should establish monitored, quantified, national, nutritional standards for school meals based on the the Department of Health's daily nutritional recommendations for children, and the Caroline Walker Trust school meal guidelines.

Funding

DfES must provide sufficient new funding to ensure schools and local authorities can deliver the required improvement in school meal provision, through at least a doubling of the money spent on ingredients, costing an estimated £200 million per annum in England and Wales.

Menu targets

DfES and schools should adopt the Food for Life targets of 30 per cent organic food, 50 per cent locally sourced food and 75 per cent food prepared from unprocessed ingredients (by weight of ingredients) for all primary school meals.

Uptake & inclusion targets

DfES and Local Education Authorities should achieve 50 per cent uptake of

school meals in primary schools as a result of their implementation of revised menus, and aim for 100 per cent uptake of schools meals within 10 years.

Active dialogue and involvement
School meals should be a pleasant, positive, educational experience where school children enjoy eating and conversing together and with adults, while learning the benefits of healthy eating and gaining an appreciation of good quality food. Children, parents/carers and teachers should be involved in the planning of school meal provision. Schools should encourage parents and teachers to eat school meals with their children on a regular basis.

Food education
Reconnecting school children with the natural world and the food chain should be a priority in all relevant areas of the school curriculum. Where possible, food should be grown in school grounds, and children should have opportunities to learn how to cook. Each child should also visit a farm supplying their school kitchen at least once in their primary school career.

What companies must do

Private companies play an increasingly important and influential role in the provision of primary school meals. All companies involved in providing services to primary school children should adopt this code of good practice:

- To promote no brands in primary schools in any way (including school dining service identity concepts)
- To ensure that charitable donations made in support of any educational activity, including the collection of vouchers for school or educational equipment, involve no corporate branding, through logos, labelling, colour schemes, titles, and slogans or via selected information content
- To provide only pure milk or water to drink in primary schools
- To serve no food containing any potentially harmful or suspect additives in the list developed by the Hyperactivity Support and Action Group
- To serve no mechanically recovered meat in primary school meals
- To serve no food containing monosodium glutamate or similar (related) hydrolysed protein flavouring salts (in line with current provision for food supplies to children under the age of three)[4]
- To take steps to cap the portion size of single-serve packages and provide guidelines for the nutritional characteristics of all products
- To label all foods with their key nutritional content (Group 2 or '4 + 4' declaration) as recommended by the Government.[5]

The challenge

These changes are the minimum needed to ensure children in primary schools enjoy healthy, wholesome and enjoyable school meals made from fresh, high quality ingredients. They are the minimum needed to ensure our children learn about their food, where it comes from, how it is produced, how to prepare it, and learn to enjoy the combination of food and conversation. These changes will play a crucial part in helping to secure a sustainable future for British food and farming. Above all, these changes are desperately urgent if we are to prevent the escalating, diet-related disease burden now threatening the well-being of an entire generation.

1 Muck off a truck

School meals currently make a mockery of many Government policies relating to health, food, farming, the environment, social justice and sustainable development. In the name of 'Best Value' most school children are served cheap 'food' assembled from low grade starches, ready prepared vegetables, processed meat, dematerialised fish, excessive cheap fat and refined sugar – foods that every community dietician and the Department of Health urge the rest of us to avoid

"Our Government feels it can hector the obese while still allowing private firms to peddle low-grade, artery-clogging swill to our schoolchildren for profit."
Janice Turner, *The Guardian*[1]

In the late 1970s a Government Working Party on Nutritional Aspects of School Meals met to review school nutrition. That expert panel made a raft of prescient recommendations including the provision of more fresh fruit and the better monitoring of nutritional content. It also recommended that "Authorities should ensure that tuck shop arrangements do not involve a health hazard" and warned that the "specification of ingredients and nutritional value of convenience foods used frequently by schools should be set and checked."[2]

Tesco recently produced research suggesting that many people under 50 don't know where basic meat cuts such as brisket, fore rib, chump or loin come from on an animal, never mind how to cook them.[3] That level of ignorance is now amply reflected in school kitchens, where the 'regeneration' of ready prepared and highly processed convenience mass catered food items has replaced if not eliminated real cooking from real ingredients. Skilled and highly motivated school cooks are rare. In many areas poorly paid 'food service operatives' prepare food. Where they do cook, ingredients are of poor quality and questionable or unknown provenance. Some do virtually no fresh food preparation, many do little more than reheat 'cook-chill' dishes made days previously and shipped hundreds of miles to the school. Most do little more than add water to sauce powders or cake mixes, defrost and heat frozen meat or vegetable 'shapes', reheat frozen vegetables, reconstitute dried potatoes and 'assemble' other ready prepared ingredients. In doing so they produce meals that contain little or no fresh food but large amounts of salt, fat, sugar, colourants, flavourings or preservatives and significant pesticide residues.

School sausages – the unpalatable truth

The parlous state of the average school sausage is a case in point. On average, catering sausages of the type sold into UK schools are 90 pence to £1.10/kg.[4] What they amount to however is little more than 'muck off a truck'.

Out of shape

While obesity among children is rising rapidly, school meals are dominated by highly processed foods laden with fat. Of the 25 different processed food products designed to appeal to school children on the menus in the London Borough of Islington, all were shaped in some form, 19 were breaded and all but two were coated in some way.

Reporting in *The Guardian* recently, food writer Felicity Lawrence suggests the secret of the successful economy sausage boils down largely to the manipulation of protein in the form of pig rind. "Frozen, imported, chopped to a slurry and soaked with hot water, it [pig rind] produces a bargain blancmange which can make up to 30 to 35 per cent of the sausage and still be called meat.

Manufacturers' handbooks recommend rind emulsion because its high protein content boosts the nitrogen counts which are the basis for tests used to determine the meat content of products."[4]

Lawrence adds that another key economy ingredient is fat, very often 'flare fat' a highly saturated fat that collects around the vital organs of the pig. Likewise, pork cheek or jowl – taken from between the earhole and the snout to add texture – which also contains the pituitary glands of the pig, a prime venue for drug residues and disease accumulation.

Add plenty of water, rusk, (up to 30 per cent) sugar in the form of dextrose (turns them brown when cooked), colourings (commonly red 2G, a red food pigment banned in many other countries) and flavourings such as hydrolysed vegetable protein (a common and perfectly legal euphemism for monosoduium glutamate, or MSG) to mask the absence of everything one might prefer to see in a sausage, soya and phosphates (to bind in the water and fat) and as Lawrence rightly observes "you have the perfect recipe for big profits."

In the same article Lawrence offers a recipe for a 'pork' sausage product supplied by an anonymous manufacturer to a specification made 'down to price' to win a local authority school supply contract. This is credited with the following contents:

- Fifty per cent 'meat'
  i. 30 per cent pork fat with a bit of jowl
  ii. 20 per cent mechanically recovered chicken meat
- Seventeen per cent water
- Thirty per cent rusk and soya
- Soya concentrate
- Hydrolysed protein
- Modified flour
- Dried onion
- Sugar
- Dextrose
- Phosphates
- Preservative E221 (sodium sulphite)
- Flavour enhancer
- Spices
- Garlic flavouring
- Antioxidant E300 (ascorbic acid)
- Colourings E128 (red 2G)
- A casing made from collagen, derived from cow hide.

Most primary schools serve sausages at least once and often twice in a three or four week menu cycle.

Motivated by a desire to be able to look her young customers in the eye and say exactly what kind of toad would be found in the hole, Jeanette Orrey, catering manager at St Peter's Primary School in East Bridgford, Nottinghamshire, has sourced an alternative from a local farm shop with its own butchery. These plain sausages are made using quality meat (belly pork and pork shoulder) that is 80 per cent lean and 20 per cent fat with no additives beyond limited amounts of rusk, water, salt and pepper. Since they are cooked within two to three days of when they are made, the salt content is minimal. The school kitchen pays £2.64/kg for these high quality offerings,[5] a premium compared to industrial school sausages but a figure well below what very similar quality sausages retail for in supermarkets. As one might expect, the children love them.

At Organix Brands, comparable sausages used in baby food are made to a recipe that is 81 per cent quality pork, 12 per cent water, five per cent organic bread crumbs, two per cent organic seasoning (salt, mace, nutmeg, rosemary oil, pepper, sage and vitamin C). These cost around £2.20/kg, and can also be made from non-organic ingredients for around 33 pence/kg cheaper.

Menu madness

This report might have no case to argue if poor quality sausages were the only problem with school meals rather than a graphic indicator for much of what is wrong with school food.

Look over the literature given to parents[6] or go to the website of a modern school catering company[7] and they will each suggest some version of the idea that they are seeking to meet "the increasingly discerning demands of young customers"[7] by developing "a quality supplier base of household brands"[7] such as Bernard Matthews, Birds, Nestlé, McCain, McDougalls or Sharwoods.

Alternatively look at the literature for the catering competition being run as part of the Local Authorities' Caterers Association's (LACA) 10th annual national school meals week, 13–17 October 2003, under the theme of 'food-4- sport'.[8] Here, behind basic profiles of the products themselves, some 20 'treat' and pudding recipes are offered to help caterers plan a menu for the week utilising four different muffin and cookie mixes being promoted for use in schools under this initiative. Over and above this, the event sponsor, RHM Foodservice, will also support each authority on a local basis with a cash bonus. This will only be paid retrospectively against the proof of purchase of selected products during the month of October, and where a minimum of one case per participating school is purchased of at least two selected products.

Ostensibly the competition is for sports equipment (vouchers for £400 worth to winning schools) but as the same literature also makes plain, the first stated objective of this programme is "to encourage schools to trial additional products from the McDougalls snacks range." Nor is this pattern of sponsorship and promotion anything unusual, last year for instance the same competition was sponsored by Nestlé and required participants to use products such as bouillon known to contain the questionable additive monosodium glutamate (see panel, right).

What very few parents may realise is that such relationships ensure the bulk of what is served to school children is anything but fresh. Most of these foods are "highly processed, long-life foods – many technological interventions removed from their raw-food roots – heavily loaded with fat, sugar and salt." As a result, "instead of being given the best food available, as they ought to be, children are being given the worst."[9]

The shape of current provision

A list of main menu items used in the London Borough of Islington[10] during the school year 2002/03 itemises 25 different processed food products designed to appeal to school children. Of these all were shaped in some form, some 19 were breaded and all but two were coated in some way.

The menu items listed overleaf provide a snapshot of current primary school food provision in a handful of English primary schools. It is based upon menus collected during the 2003 summer term from schools in three inner London boroughs and the counties of Devon, Hampshire and Nottinghamshire.

Care was taken to ensure these schools are currently served by long standing local authority or private sector catering companies themselves supplied directly by the major wholesalers that commonly supply school meal ingredients. The Soil Association believes the picture this offers is neither substantially better nor worse than the great majority of menus being served across the country in most schools.

Four indicators give support to this view. Firstly the same dishes (identifiable by food item name) crop up across the country repeatedly in several areas managed entirely independently of each other. Secondly, there is very little if any variation between areas in respect of both the basic menu structure and the frequency with which particular dishes are served. Thirdly, the provision of culturally familiar food for ethnic minority children was

Beyond bad taste[11]

Monosodium glutamate (MSG) – such a favourite flavour among food technologists – would probably fail to gain approval for use in food were it up for approval today.

Umami or 'savoury' was a routine part of Japanese cooking provided most often by 'dashi kombu' or seaweed broth used in or as the base for many dishes. In the 1920s it was discovered that glutamic acid provides this flavour. No safety tests were ever done on MSG at the time it was first manufactured though it has subsequently emerged that people with allergies and asthma often react badly to very small amounts of this substance. The US Food & Drug Administration estimates that around two per cent of the US population is MSG reactive, though others would put this figure considerably higher.

Since glutamic acid can also cross the blood brain barrier and damage the nervous system it is now banned in baby foods. To date however no research appears to have been done to assess the impact or fate of MSG in children and caterers would find it very hard to exclude it from school diets without abandoning most processed foods.

Under current rules MSG may be hidden under many names such as 'hydrolysed vegetable protein', 'natural flavouring', 'seasoning spices' and 'plant protein extract'. It may also in effect be hidden and unlisted as an ingredient within another.

Organic food regulations prohibit the use of MSG, hydrolysed protein or any ingredient containing these.

consistently rare (almost entirely absent) across all areas, regardless of the mix that was present in the various schools. Lastly, none of the summer term menus seen exhibited any seasonal elements in their menu – such as summer fruit, courgettes or new potatoes.

All of these observations are consistent with what is to be expected of food sourced predominantly from manufacturers and through centralised supply systems dedicated to selling food into schools across large areas if not the whole country.

Main course choices

- *Fish*
  All fish served on both two and four week menu cycles was processed, 'shaped' and coated either in butter, crumbs or batter (buttered fish burger, fish fingers 'fishy footballer', fish 'rocket', 'fishy octopus', fish 'sunshine', oven-baked fish cake, 'Jimmy the fish', 'Sammy salmon'). Very few if any of these items are likely to contain real fish fillet. Most contain 'dematerialised' or minced fish and cheap fillers
- *Turkey*
  All turkey meat – served at least once a week and in some places as often as once every second day – was processed. In many instances this – like fish – is also shaped/coated (turkey & lamb 'twizzler', turkey & vegetable pie, turkey 'dude', turkey meat balls in tomato sauce, turkey 'pyramid', turkey 'spaceman', turkey stew, turkey '2002', turkey 'twins'). A substantial portion of the ingredients may be poor quality mechanically recovered meat
- *Chicken*
  Chicken products are also served at least once a week in most areas (more often where less turkey is provided). Chicken almost always comes in some highly processed format that – in the light of recent consumer surveys[6] and disclosures by BBC Panorama[7] – raises concern about their meat and additive content (chicken burger, 'chicken in the jungle', chicken or pork – unspecified, chicken 'rhino', chicken 'shooting star', chicken 'smile', 'golden drummer')
- *Lamb*
  Lamb is on average served twice a week in some form, most often in dishes that before the advent of BSE might have featured beef (Caribbean lamb stew, lamb & pork burger, lamb bolognaise, lamb country vegetable slice, lamb lasagna, lamb pie, lamb stew, lamb suet roll, vegetable lasagna (with

Shapes of things

"The children don't ask me what they are having for lunch any more. They ask me what shape they are having. They have learned they can't tell the difference on the basis of texture or taste."
Primary school head[10]

Product Profiles

All nutritional data based upon that supplied per 100g

Pork tendersteaks[13]
Brand: Bernard Matthews
Product description: Delicious boneless alternative to pork chops, attractive cutlet shape, cook from frozen in just eight to 10 minutes
Ingredients: pork (65 per cent), water, rusk (12 per cent), vegetable oil, dextrose, stabilisers (E451,E450, E452,) wheatflour, antioxidants (E301, E300, E304, E307, E330), herb extract, mustard, yeast extract, spice extract, colour (E162).
Salt: content unquantified
kcal: 164/57g serving (cooked)
Fat: 11.9g
Protein: 7.23g
Carbohydrate: 7.12g

Turkey 2002[13]
Brand: Bernard Matthews
Product description: Tempting and topical shape – an excellent menu item during the World Cup, Commonwealth games, Winter Olympics and Golden Jubilee. Excellent plate coverage. Promotional information reports the cooking time as three minutes – that specified for deep frying – but supplies no nutritional information using this method
Ingredients: turkey (30 per cent), breadcrumb (contains natural colour: paprika extract), vegetable oil, water, batter (contains raising agents E450, E500) textured wheat protein (five per cent), tapioca starch, skimmed milk powder, whey protein, flavouring (unspecified), white pepper. herb extract
Salt: content unquantified
Kcal: 208/60g portion (oven baked)
Fat: 13.9 per 60g
Protein: 8.52 per 60g
Carbohydrate: 12.36 per 60g

Monster feet[14]
Brand: Green Gourmet
Product description: Crumb coated foot shapes with vegetarian filling. Free from nuts and nut derivatives. Vegan
Ingredients: Rehydrated potato flake, breadcrumbs (with natural colourings tumeric, paprika, annato) rapeseed oil, seasoning (soya, wheat gluten, hydrolysed vegetable protein, wheatstarch, dextrose, rusk, flavouring, stabiliser E466, spices, yeast extract, herb extract), soy isolate, tapioca starch, batter (wheatflour, maize starch, salt, potato starch), soya grits, onion, water
Salt: content unquantified
Kcal: 125/57g serving
Fat: 5.3g
Protein: 5.3g
Carbohydrate: 14.25g

Cheese in the moon[14]
Brand: Green Gourmet
Product description: Man in the moon made from cheese in part wholemeal crumb, 30 per cent cheese by recipe.
Ingredients: Processed vegetarian cheese 30 per cent (cheese, water, butter, milk protein, whey powder, calcium caesinate, starch, emulsifying salts E450, E452, E341, E339), breadcrumbs (part wholemeal with natural colourings, tumeric, paprika, annato), water, rapeseed oil, wheatflour, cauliflower, seasoning (pea protein, wheatstarch, dextrose, E461, onion powder, tomato powder, oregano, basil, pepper), tomato puree, rusk.
Salt: content unquantified
Kcal: 165/57g serving
Fat: 9.69g
Protein: 6.7g
Carbohydrate: 13.68g

Fish rocket[15]
Brand: Brake Bros.
Product description: Formed minced white fish and potato coated in batter and breadcrumb and flash fried
Ingredients: Minced white fish (35 per cent), breadcrumbs (22 per cent) (contains colours E100 & E160c) water, sunflower oil, potato flake (eight per cent) (contains emulsifier E471 and antioxidant E223), wheat flour, starch (potatoes, wheat) rusk, salt, parsley, maize flour, pepper, mustard powder, raising agents (E450, E500)
Salt: content unquantified
Kcal: 112/57g serving
Fat: 4.85g
Protein: 4.7g
Carbohydrate: 12.54g

One-hundred grams

One-hundred grams of baked cod contains 1.2g of fat. The same weight of cod fish finger contains 7.5g of fat before it is cooked and 12.7g of fat when it is fried.

One-hundred grams of raw lean beef contains 4.6g of fat and 61mg of salt. The same weight of raw beefburger contains 20.5g of fat and 600mg of salt.

One-hundred grams of tomato puree contains 11.4g of sugar and 20mg of salt. The same weight of tomato ketchup contains 22.9g of sugar and 1,120mg of salt.[9]

One-hundred grams of fresh raspberries contains 5.6g of sugar. The same weight of tinned raspberries contains 22g of sugar.[9]

unspecified meat). Limited interviews with kitchen staff indicated that most of this meat arrives in a minced format with no indication of its origin or provenance

- *Pork*
  Pork appears between once and twice a week on most menu cycles. It is served very largely in combination with poultry or lamb (burgers, gammon style roast, sausages, 'snakes & ladders', toad in the hole). Less commonly it is served as ham or bacon in items. In the light of what has been reported recently about the quality of school sausages (see page 11), much of what is being called pork in these menu items may in fact be no better than emulsified flare fat combined with some jowl.

Vegetarian options

All of the menus collected exhibited the age old reliance on 'cheese for vegetarians' between two and three times a week in some form (cauliflower cheese, cheese & egg roll, cheese & potato pie, cheesy 'crescents', cheese 'in the moon', cheese pasta bake, macaroni cheese, pizza, three-cheese pancake). The most common alternatives used were eggs (for example omelettes), 'veggie nuggets' and 'puffs'. Vegetable curry and risotto get a passing reference in two places but the use of textured vegetable protein appears very limited and there was no recognisable use of tofu or Quorn on the menus reviewed.

Vegetables/salad selection

Baked beans are always served at least once and often twice a week – as often in fact as peas, sweetcorn and sliced green beans combined. Brocolli is served even less – not more than once a fortnight and often in combination with cauliflower. Kitchen commentaries suggest most vegetables now arrive frozen – the only regular exceptions being salad though in schools committed to serving mixed salad every day this often now arrives ready prepared and anything but fully fresh. Root vegetables are also still commonly supplied 'fresh', though this often if not always means ready peeled in bags dosed with preservatives.

Carbohydrates (bread, pasta, potato and rice)

Chips are now rarely served more than once a week in most schools but smiles/waffles, saute, roast and 'buttered' boiled potatoes – all forms of starch cooked in fat – still appear to the fully permitted maximum (three times a week under current standards) on most menus. Moreover, in some weeks in some schools it is clear that the food-based standards are exceeded, especially where garlic bread appears. This may not be classed as a starchy food 'cooked' in fat (as per the criteria listed in the standards) but it often comes fully laden anyhow. In some places white rice or pasta are also served every day, but not in others and rarely if ever together.

Sweet course

Some schools now offer a piece of fresh fruit as a dessert option, but not all can afford to do this every day. It remains the case that cooked fruit still comes mostly if not exclusively out of a tin. Fresh fruit salad is also a rare option – on average served no more than once a fortnight and almost always as an alternative to a tempting sticky pudding (that will cost less to serve).

Low fat yoghurts are served widely every day now as a 'healthy' option, but there are no regulatory controls to limit their sugar, colouring, flavouring, starch and artificial sweetener content at present. Many served in school are 'ambient' or long life rather than fresh (let alone bio-live) and packed full of additives. Many schools also routinely offer ice cream or flavoured milk and biscuits which sound harmless enough but also lack regulated specification sufficient to ensure they are of a decent quality and contain anything better than dematerialised fruit and artificial colourings and/or flavours.

Paying for bureaucracy and food miles – not quality

Despite the downward trend in school food quality in recent years, the price of school meals has escalated, rising well above the rate of inflation. One reason for this is that sizeable overheads accrue to a lot of school food on its way through the current supply chain.

Since the outset of compulsory competitive tendering it has been widely argued and assumed that larger catering companies deliver substantial economies of scale. However, there is some evidence that money is being spent on managing contracts that would otherwise have gone on school meal ingredients.

In a large county with between 300 and 400 schools serviced by the catering division of a county council, you are likely to find a team of 'contract officers' managing this provision, supported by a team of assistant contract officers. Alongside these people there will be a group of technical assistants, clerical assistants and admin' assistants as well as a further group involved in the purchasing and/or procurement side.

The real cost of all this procurement hierarchy is virtually impossible to quantify. What has proved much more tangible is the discovery that schools opting out of large contract routinely find they can increase ingredient spend to around 70 pence per child a day[17] – more or less double the current national average – permitting the use of better quality ingredients without busting the budget.

At St Peter's Primary School in Nottinghamshire, the uptake of school meals improved substantially when menus were improved, suggesting some of this dividend is down to a general reduction in the overheads per child. It appears that local sourcing may also have removed some overheads that arise from an extended ingredient supply chain. In Norfolk, where the county wide catering operation still sources a substantial proportion of its materials locally, the ingredient spend on school meals is 55 pence per child a day – the highest level identified during the research for this report for any public sector caterer in the country.

Related pressures

Government intervention is required on three other issues that bear very directly on reforming the 'social environment of food choice'[18] to improve child nutrition and health in primary schools. These are the value of free school meals; the provision of free fresh drinking water and the use of brand-related advertising to sponsor schools or the activities they pursue.

Spending on school meals

Having seen prices rise relentlessly above inflation for some years,[19] few if any parents would welcome and many might refuse to pay more for school meals unless a significant amount of public or lottery money is directed into raising the ingredient quality and upgrading kitchens and dining spaces.

Equally, despite the arrival of new minimum nutritional standards in 2001, there are still no minimum standards for the value of a free school meal. According to the Health Education Trust[20] it varies widely from as little as 85 pence to as much as £1.45 in different parts of the country.

As has been argued rigorously by other groups, most notably the Child Poverty Action Group (CPAG) and the Health Education Trust:[21, 22]

- The value of this statutory benefit should be the same for all recipients
- Without the imposition of a clear minimum standard the present fluctuations are likely to get worse
- Variance of cost results in similar variance in meal quality – a key reason for low uptake, especially among older children
- For many schools in deprived areas the majority of meals served are free

The spiral of decline

The Soil Association believes that the degradation of school food provision is both fed by and feeds back to reinforce a powerful spiral of decline:

- Under investment in school kitchens and staff
- Pursuit of the cheapest option in the name of Best Value
- Cheap = poor menus over reliant on processed foods
- Rising fat, sugar, salt and additive load in child's diet
- Rising parental anxiety about junk food and behaviour
- Drop in school meal numbers as more opt for packed lunches
- Substitution of fresh food by processed snack items
- Free school lunch consumers become more visible or 'exposed'
- Decline in numbers claiming free school meals
- Potential decline in overall health and nutrition of all pupils
- Loss of viability for the hot meals service
- Lack of management time among school heads or governors
- Pressure for more teaching space
- Closure of kitchens
- Narrowing of lunchtime food choices
- Loss of opportunity to try new cooked foods
- Introduction of sandwich service only
- Further decline in numbers
- Downgrading of lunch experience to 'refuelling'
- Downgrading of nutrition delivered to the most vulnerable children
- Loss of socialisation opportunities associated with eating at table
- Poor attention and behaviour in afternoon classes undermines attainment.

This means the free school meal valuation will by default define the (nutritional and general) quality standard for the entire service in such schools (and is less likely to address adequately the nutritional needs of that vulnerable majority).

These groups also argue that poor meal quality is one key reason why, on average, across the country around 20 per cent of those entitled to them do not currently take up free school meals under current rules. Moreover, this gap between entitlement and take-up increases with the age of the pupil as more children go off the premises to avoid poor eating environments, sloppy attitudes towards special needs and stigma generated by indiscrete lunch payment and registration systems.

In 2002 the National Heart Forum (NHF)called for minimum national standards for school meal providers that would cover both quality and expenditure on school meals. NHF suggested that any primary school meal should be not less than £1.30 (2001 prices) and that such a valuation should be made a statutory minimum requirement for free school meals.[23]

In its 2002 survey of school meals in the 21st century,[19] Unison found prices ranging from 95 pence to £1.65 depending partly on the level of subsidy assigned by LEAs. Three quarters of the results showed however that in 2001 parents were paying between £1.20 and £1.45.

Taking £1.35 as a conservative average at today's prices, the Soil Association believes that not less than 35 pence must be added to this average daily figure in order to double the average amount spent on school meal ingredients.[24]

To ensure the provision of decent free school meals, the parallel valuation for these applied in primary schools should then be no less than £1.70. Moreover, the Government needs to regulate to make this minimum national standard valuation accompanied by guidance that specifies the minimum proportion of the total price to be spent on fresh, unprocessed, high quality ingredients.

Linked to these changes LACA and the DfES need to monitor school meal prices each year so that accurate figures are applied in quality assessments and 'Best Value' benchmarking procedures (see Chapter 5, page 45). Only when such data is collated routinely will it be possible to effect control and deliver continuous improvement in (free) school meal provision.

Drinking water

Water is vital for normal bodily functions, maintaining health and well-being. Yet the link between food and health always gets more public attention than that between water and health. Likewise, ensuring free access to water and promoting a regular water intake throughout the school day is a vital role many schools fail to fulfil while claiming to promote health in a healthy learning environment. As a result it remains remarkably rare for primary school children to have what most working adults take for granted in their place of work: adequate access to palatable water from attractive and hygienic facilities.

Nickie Bander is campaign co-ordinator for the children's medical charity the Enuresis Resource and Information Centre (ERIC). She says, "The medical profession has been telling ERIC for many years that children do not drink enough water at school – and that the resulting dehydration contributes to a number of short and long term problems that affect children's health and learning."[25]

In October 2000, results from a survey of drinking facilities in primary and secondary schools conducted on behalf of ERIC in two education districts by the Royal College of Paediatrics and Child Health, revealed some 10 per cent of schools failed to provide drinking water at all. Even where water facilities were present, these were often either unattractive (poorly maintained, tepid poor tasting water), restricted (water only

available on request, at certain times of day, or in too few sites) or insufficient (on average one fountain or tap serving up to 700 pupils, with a mean of one per 80 pupils). The commonest location for water facilities was the toilet area, an unhygienic and inappropriate place to get a drink. Cups were rarely provided for taps, and where they were, these were usually communal with no means for washing them after use.

Since October 2000, ERIC has run a national campaign to improve children's access to fresh drinking water, setting up of over 40 regional campaigns around the UK, supported by health and education groups and schools complying with the so-called Healthy Schools standard. Thousands of schools have responded by allowing refillable water bottles on desks in the classroom and installing plumbed in water coolers and modern chilled water fountains with a swan neck for refilling water bottles. The improvement, however, is far from consistent across the UK and related efforts to curb the consumption of fizzy drinks have often not been followed through with better water provision.

The Community Practitioners and Health Visitors Association (represents over 60 per cent of school nurses) recently joined a coalition of organisations to support ERIC's campaign. Its members surveyed the state of the provision and access to drinking and toilet facilities in primary and secondary schools across the UK during the summer term of 2003. The results were not published before this report went to press. ERIC is confident however that they will show clearly that the Government need to legislate to ensure adequate minimum regulations for water provision in schools.

At present Government regulations and guidance to 'healthy schools' only require the supply of drinking water. They do not specify the means of delivery, appropriate locations, the type or number of facilities per pupil, maintenance or hygiene standards, whether the water should be palatable or accessible to the pupils or how often. School meals' guidance also currently expects but does not require drinking water to be made available free of charge.

Enforcement will be essential to make any new regime effective. Ofsted, the schools regulator, is ideally placed to check that both a policy is in place (preferably within a whole school approach to food and health). It can also check that appropriate steps are being taken to improve and sustain clean, safe and accessible water supplies for all our children and young people.

Anything less will become a sustained breach of a human right defined as "indispensable for leading a healthy life in human dignity" and "a prerequisite for the realisation of all other human rights" by the United Nations in November 2002[8]

Branded information in schools

In recent months the International Obesity Task Force and the joint WHO/FAO *Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases* have both emphasised that multinational business interests heavily promote sedentary behaviour and the passive over-consumption of food and drink to young children.[26]

Such promotion is conducted by making school aged children the primary target for so called 'relationship marketing', designed to build long-term brand loyalty and trust, particularly at a local and individual level. Such promotional activity can vary from straight media advertising to incentive schemes involving rewards for certain patterns of consumption.

Latest figures suggest that in 2002 food and drink companies spent a fantastic amount of money – over £680 million – advertising foods to children – much of it on hiring celebrities to entice children to eat snack foods high in fat and sugar or salt. More generally, for every dollar spent by the WHO on trying to improve the nutrition of the world's population, $500 is spent by the food industry on promoting processed foods.[27] It is no accident then that in 2002, Datamonitor also identified food advertising targeted at children as one of the top five causes of childhood obesity.[28]

Over one quarter of the 2.75 million packets of crisps sold by Walkers every year are purchased by children – many of them on the way to or from primary school.[27] The brand loyalty and recognition that these products enjoy is a direct result of massive and consistent advertising[29] including a campaign directed specifically at primary school age children through book token sponsorship programmes.

Manufacturers know that children are particularly susceptible to the persuasion of advertising. Indeed, the Supreme Court of Canada recognised this in 1989, when it held that the Quebec Consumer Protection Act's prohibition on advertising directed at children under the age of 13 did not unduly limit constitutionally protected free expression. The Court stated that: "advertising directed at young children is per se manipulative. Such advertising aims to promote products by convincing those who will always believe."[30]

In a pressured financial climate schools are constantly encouraged to 'take advantage' of corporate sponsored learning materials. Given that children spend 40 per cent of their day in the classroom, custom made learning materials of this kind have become a primary vehicle for slipping advertising into this otherwise inaccessible venue. The result is a plethora of 'education packs' that often contain very little useful education content and a great deal of information of no educational value. Given the importance of food advertising in general, a huge proportion of this material involves or impinges directly on food education and consumption patterns including what is or may be offered or consumed during school lunch or from school vending facilities.

The latest major food marketing drive to play – literally – on the enthusiasm of school children is Cadbury's sponsorship programme to get children to exchange chocolate wrappers for school sports equipment. The 'Get Active!' project is running in partnership with the Youth Sports Trust, a registered charity aiming to increase children's participation in sport. To the consternation of many concerned with health promotion, the launch of Get Active! received official Government support from sports minister Richard Caborn. To its credit, the Food Standards Agancy (FSA) said of this "we were not consulted about this scheme and do not endorse it, nor do we consider it desirable in terms of diet."[31] Others such as the health ministry however remained silent on the issue.

Cadbury defends the initiative by arguing that this promotion is about one of the country's most popular brands addressing one of the biggest issues in the UK – levels of childhood inactivity. It refuses to accept that Get Active! sets out to persuade children to buy fattening sweets and chocolate-based snacks full of fat and sugar.

Taking the average fat and calorie content and the average price of chocolate bars carrying tokens for this scheme the Food Commission has calculated how much chocolate must be eaten to earn some of the rewards. For instance, to earn a single netball, worth around £5, primary school children would need to spend just under £40 on chocolate, consume over a kilogram of fat, and over 20,000 calories. Parents, it seems, are expected to overlook the fact that such over-consumption of these popular branded products would help predispose their offspring to the most significant health problem likely to shorten their life expectancy – the combined and rapidly escalating epidemics of obesity and diabetes.

A report entitled *Healthy English Schoolchildren: A new approach to physical activity and food* was presented to the current Government in 1997 by obesity expert Professor Phillip James.[32] This recommended that the persistent and brilliant marketing of junk foods to young children is "an unscrupulous marketing system, that needs to be constrained."

Food brand promotion is however continuing to escalate relentlessly at every level in the school system, subjecting the social environment of food choice in school to ever increasing pressure from commercial interests.

Any and all such commercial promotion of unhealthy food to primary

school aged children through direct or indirect sponsorship activities linked to schools and their curricular or extracurricular activities should stop. It runs counter to any effort made to develop a robust food culture and provide a sound education in healthy eating.

A litmus test for sustainable development

In their recent report *School Meals: Healthy eating and sustainable food chains*, Kevin Morgan and Adrian Morley of the Regeneration Institute at Cardiff University argue that school meals offer a litmus test for the delivery of sustainable development. These leading academics suggest "the primary responsibility for re-balancing the 'social environment of food' choice rests squarely with the Government because no other body has the mandate or the capacity to undertake such a demanding task – a task that falls within the Government's formal commitment to sustainable development, which aims to promote social, economic and environmental well-being."

Equally, Morgan & Morley point out that "in public policy terms there is something genuinely radical, and perhaps even unique, about sustainable development, which is that it cannot be accomplished through Government action alone."

Most if not all of the case studies presented in this report lend strong support to that assertion. From upland Italy to the outskirts of Bath, change starts when parents, teachers, governors, caterers and children start to recognise and value the health and educational benefits of school food (integrated across the whole school day) and start to question the provenance and quality of what is served.

As Morgan & Morley also observe, local campaigns that demand locally-produced nutritious food (such as that taking place in Denbighshire, see Chapter 8, page 80) may atrophy without concerted signals from the public realm to ensure public procurement policies respond to these concerns and make sustainable healthy food options more readily available.

Packed lunches

The focus of this report is cooked lunch provision in English and Welsh primary schools. The starting point for many of the arguments made for upgrading the quality of food served in these schools is the basic principle that a full hot meal made from quality ingredients is generally preferable socially, nutritionally and educationally for all primary school children.

This view is clearly at variance with those local authorities and schools that have abandoned this provision (see panel overleaf). It may also appear to condemn choices made by many parents to opt out of lousy school meals in favour of a packed lunch.

This report is not seeking to condemn these decisions or packed lunches. It does however question their value. Taking the Caroline Walker Trust nutritional guidelines (see Appendix 1, page 103) as a starting point, lunch should provide no less than one third of the daily nutrient intake required for school aged children – regardless of the foods used to deliver that nutrition. To do this a packed lunch should contain:

- A starchy food such as bread, pitta bread, chapati, crispbreads or rice cakes
- A meat, fish or alternative (such as cheese, peanut butter, egg, houmous)
- Two portions of fruit and or vegetables such as salad, fruit, dried fruit, fresh fruit salad, carrot sticks.

FSA data confirms poor quality of most packed lunches

The dire state of most packed lunches was confirmed on 2 September 2003 when the FSA published the results of survey work undertaken into the contents of packed lunches brought to school in the spring of this year.

More than half of all primary school pupils now bring a packed lunch to school. In this survey the Community Nutrition Group (part of the British Dietetics Association) examined 556 home-packed lunches for children from 24 primary schools across the UK during the week of 28 April to 2 May 2003.

The data collected reveals that only 21 per cent of the packed lunches surveyed would meet the Government's minimum standards for primary school meals. Moreover, nine out of 10 lunchboxes examined contained food that is too high in saturated fat, contains twice the recommended amount of sugar and supplies close to half their daily recommended salt intake.

The most popular food items found were a white bread sandwich (87 per cent), crisps (71 per cent) a biscuit or chocolate bar (60 per cent) and dairy items such as yoghurt or fromage frais (48 per cent). Fewer than half the packed lunches contained a portion of fruit. 40 per cent of the saturated fat content in the lunchboxes came from butter and other fat spreads, up to 25 per cent from cheddar cheese, up to 19 per cent from crisps and up to 14 per cent from chocolate bars and biscuits. Salt tended to come from foods such as white bread, ham and crisps. Sugar came mainly from fizzy drinks, ready-to-drink juice drinks and chocolate-covered bars and biscuits.

Sadly this study did not examine the nutritional content of packed lunches supplied by school meal contractors where there is no hot meals service or ask whether these also (fail to) meet nutritional guidelines.

As the FSA board member and chef Robert Rees suggested when commenting on this survey, "small changes to what children eat now can have a big impact on their health in the future."

Bag lunch only

Local authorities in England no longer providing a full school meals service and serving only sandwiches:

- Buckinghamshire
- Dorset
- East Sussex
- Harrow
- Hereford & Worcester
- Hillingdon
- Kingston
- North Lincolnshire
- Northampton
- Lincolnshire (part)
- Somerset (part).

To deliver this, schools using sandwich-based services to provide free school meals and parents sending children in with a packed lunch must take great care to ensure that contents of packed meals vary on a daily basis. As the Caroline Walker Trust has also emphasised, if the same food is repeated every day it will be nigh on impossible to ensure a balance of nutrients is delivered to the child.[33]

Latest evidence from the FSA (see panel on the previous page) suggests that many packed lunches are consumed by an escalating proportion of pupils precisely because they or their parents have decided that the cooked lunch provision is too poor to be worthwhile for the price charged. Research has also shown that peer choices matter a great deal;[34] as one child or parent votes, so will many more, especially when schools prevent packed lunch pupils eating with their cooked lunch eating friends or vice versa.

As many heads will confirm, packed lunches rarely deliver sufficient good nutrition. Even where schools seek to restrict the inclusion of canned or sugary drinks and chocolate items, they still very often contain a disproportionate amount of snack foods high in fat, salt or sugar, often fail to deliver significant protein and rarely contain sufficient fruit and vegetables. As Jim Collins, an organic farmer in Essex who hosts many school parties from large areas of south-east England observes, "I can honestly say that in an average school party you could count on one hand the children who even had a sandwich; most have little or nothing more than crisps, a can of coke and a chocolate bar."[35]

Worse, as school lunch numbers fall away, the viability of the service is often threatened, driving a process where labour and ingredient costs must be cut to a minimum, resulting in even less quality food reaching the children eating school lunch. In many instances the ultimate outcome of this spiral of decline (see panel, page 17) has or will be the removal of kitchens to make way for a new classroom or specialist facility such as computer suites.

In the Italian case study details in Chapter 7 (see page 63), it is notable that the food culture and public consensus have made it mandatory for all children under the age of 11 who remain on school premises at lunch time to eat the meal provided in the school. This is often coupled with responsibility for the lunch provision resting with parent committees. As Chris Cope, head of catering operations and procurement for Norfolk County Services and a recent visitor to northern Italy observes, "The overall result is a better quality service providing much healthier food for the overwhelming majority of pupils." In that environment, busy and predominantly working parents have confidence their children get and eat a healthy main meal.

There is limited evidence that schools that confront what arrives in the packed lunch box win back numbers to school lunch. For example, in Carmarthenshire, a couple of schools have banned junk food in pack lunches, checking each to make sure there are no sweets, chocolate or high sugar drinks. Both schools now have school meal uptake take up rates of around 90 per cent.[36]

With general levels of public anxiety about food safety and healthy eating in children running at an all time high, it seems more than likely that a significant majority of parents in this country would greatly welcome an opportunity to abandon packed lunches if a better alternative was on offer.

2 Food for Life

A practical programme is urgently required to transform the quality of school meals by enabling local authorities, caterers and schools to provide a much greater proportion of food that is nutritionally valuable, fresh, unprocessed, locally produced and of organic origin. Working alongside the Soil Association, Food for Life was established in 2003 to run a pilot project in a small group of primary schools keen to upgrade their menus, source new supplies, and cultivate a discerning, healthy food culture through better classroom food education and farm visits

"The current thinking that tries to match food and health education in schools with the quality of meals served at lunchtime is as joined up as a five year old's handwriting."
Lizzie Vann MBE, founder and managing director, Organix[1]

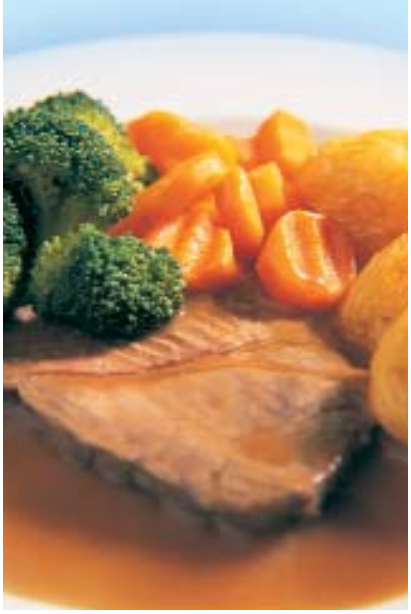
Food for Life is a practical response to the frustration felt by parents, health professionals, and food campaigners about the increasingly poor quality of primary school meals. It has been set up to test a set of challenges to the system to help deliver better food. Food for Life believes it is possible for meals to be improved either within the local authority system or without, in clusters or independently. Food for Life schools are asked to work towards a series of targets designed to raise awareness and appreciation of good food, reform menus and localise sourcing. These targets also aim to raise the quality of ingredients in order to reduce the amount of hidden pesticide residues, salt, fat, sugar, preservative, colourings and artificial flavourings being dished up in school lunches.

Food for Life targets
Schools adopt five key targets and monitor their progress towards them:

- *Good nutrition*
  Primary school lunches will provide food that meets the quantitative nutritional targets first published in 1992 by the public health charity, the Caroline Walker Trust and appended only as guidance to the current food-based school meal standards (see Appendix 1, page 103)
- *Organic food*
  At least 30 per cent by weight of the foods served should be from certified organic sources. This target aims to steer schools towards food supplies of high quality that incur minimum 'food miles' and enjoy known provenance. It is intended that priority be given within this target to the sourcing of meat, milk, eggs, fat products and certain produce shown more consistently in Government testing to carry pesticide residues such as lettuce, mushrooms, tomatoes and potatoes. It should be noted that some of these ingredients (organic root vegetables and dairy foods) do not command a price premium, indeed they are grown in the UK and in surplus

Food for lunch

According to Jeanette Orrey, catering manager at St Peter's Primary School, Nottinghamshire – a Food for Life pilot school – the most popular meal with her pupils is roast beef, roast potatoes, broccoli and carrots all covered in gravy.



- *Sustainable supply chains*
  At least 50 per cent of meal ingredients should be sourced from the local region. The term 'local' refers to "food derived from a system of producing, processing and trading, primarily of organic and sustainable forms of food production, where the physical and economic activity is largely contained and controlled within the locality or region where it was produced, which delivers health, economic, environmental and social benefits to the communities in those areas." Buying local food helps retain wealth in local communities. Food for Life schools are however encouraged to avoid 'local food' produced in highly intensive production systems employing pesticides, the routine use of antibiotics and growth promoters
- *Less processed foods*
  Food for Life believes that to meet the other Food for Life nutritional target at least 75 per cent of all foods eaten should be prepared from unprocessed ingredients. Processed ingredients offer poor value for money because their nutritional values are often low, providing fewer nutrients for the money spent compared to less processed ingredients. The term 'unprocessed' should mean the raw, basic ingredients such as fresh produce, fresh meat, fresh or frozen fish, poultry, cereal flours, pulses and beans (see the table below for examples and contrasts). All ingredients must also meet or exceed statutory regulations for food hygiene, food safety, and food quality
- *Better food education*
  Curriculum time will be made available for classroom and school trips to cover the subjects of why eating well matters, where food comes from, how to cook and animal welfare. In particular, Food for Life schools are encouraged to develop a long-term relationship with a working organic farm.

Why quantified nutritional standards?

Current school meal standards are based upon food groups (rather than the quantitative nutritional guidelines first published in 1992 by the Caroline Walker Trust). Evidence presented in Chapter 4 (page 39) shows clearly that these food-based standards are failing to deliver adequate nutrition to school children, a vulnerable group with particular needs, and sets out the case for their urgent reform. Recent work undertaken as part of the Food for Life pilot at Sopley School in Hampshire (Chapter 8, page 78) has also shown that such quantified nutritional standards offer a more effective and flexible basis for delivering adequate school nutrition. One key recommendation of this report is that the Caroline Walker Trust criteria (see Appendix 1, page 103) should be used to replace and upgrade existing school meal standards for England and Wales, in line with changes already being implemented across Scotland (see Chapter 3, page 38).

Why 30 per cent organic?

Studies have shown that over the past 60 years there has been a relentless decline of between 40 and 75 per cent in the trace elements available in fruit and vegetables.[2] Whether this is down to cultivation methods relying on the use of synthetic fertilisers and rapid growth cycles or to plant breeding is unclear, but the net effect gives cause for concern particularly for children who have developmental needs for critical nutrients and eat proportionally more of their body weight than adults. Additionally, there is evidence to suggest that organic food contains greater amounts of vitamins and minerals than non-organically produced food.[3] In a review of 41 studies, organic crops were shown to have higher levels of vitamin C, magnesium, iron and phosphorus as well as more of some valuable secondary nutrients such as antioxidants.

Non-organic farmers can use over 450 pesticides – many of them as a prophylactic rather than a necessity. Organic farmers can only use seven types and only then as a last resort. As a result organic food contains fewer toxic pesticides (including the most persistent organochlorines) and is produced

in less contaminated conditions. As leading toxico-pathologist Dr Vyvyan Howard from the Developmental Toxico-Pathology Research Group at the University of Liverpool says "The best available method of reducing exposure to potentially harmful pesticides is to consume organically grown food, where their use is avoided."[4]

Organically reared animals (especially pigs and chickens) are raised to tightly specified high welfare standards. They are raised more slowly, in more space, predominantly outdoors without the use of growth hormones and with no routine use of antibiotics. No cases of BSE have ever been recorded in a dairy cow born and reared organically. The only cases found in an organic herd have always been in cattle brought in for conversion or breeding purposes. Moreover, the substantially grass-fed diet of organic dairy and beef animals has a direct and highly beneficial impact on the quality and nutritional content of the meat and milk. Organically reared cattle have been found to show a more favourable fat profile in their meat – that is, a lower ratio of saturated to unsaturated fat. This significant nutritional detail has implications for circulatory and perhaps other diseases. Additionally, meat and milk animals fed proportionately more grass, hay or silage also show higher levels of the naturally occurring fat conjugated linoleic acid, shown in studies to help prevent cancer, reduce heart disease and help weight control.[3]

Lastly, of some 290 food additives approved for use across the EU only 29 are permitted in processed organic foods. Moreover, a range of controversial additives such as MSG, aspartame, tartrazine and hydrogenated fats are banned in organic food. This in turn also means that a wide range and large quantity of potentially allergenic or harmful additives are avoided on a diet high in organically grown foods.[5, 6]

Why 50 per cent local ingredients?

Modern agricultural systems rely heavily on high energy inputs derived from fossil fuels in order to generate high yields. Transportation is a huge hidden environmental and resource cost commonly associated with this system because most producers are locked into distant supply chains. With distances still rising overall between producers and consumers some 12 to 15 per cent of the nation's food expenditure is currently going on transporting and packaging food. Centralised distribution systems render potentially sustainable supply chains unsustainable.[7]

Removing these 'food miles' through local sourcing retains that wealth in local economies – within businesses, institutions or households – and releases it for other expenditure. As the Policy Commission report, *Food & Farming – A sustainable future*, (and many organisations that gave evidence to their enquiry) argues, local businesses and producers are vital to the practical realisation of sustainable development because social capital they generate and hold gives rise to employment, good quality food and wider social benefits. While school kitchens can get fresher food on a more affordable basis without paying for transportation and multiple handling costs, growers develop a reliable market without having to waste energy and resources competing with imported produce for space on supermarket shelves.

The shorter the delivery journey, storage time and period between harvesting and consumption, the better the nutrient content of fruits and vegetables. Similar arguments apply to seasonal food that is more likely to come from a closer source and is less likely to have been forced, stored, grown using artificial light or heat, processed, or ripened using chemicals. Frozen food can provide an exception to this rule in some cases, most notably for peas. Processed tomatoes may also be more beneficial than raw because the processing may render some nutrients more easily absorbed by the body. Using local food also presents an important opportunity to prepare and serve a wider variety of more 'real' and seasonal fresh food to school children. This in turn makes it possible to reduce the use of heavily processed and convenience foods.

Spending power

In 2001 every £1 spent in a local organic box scheme in Cornwall generated an additional £1 for the local economy – whereas £1 spent at the local Asda supermaket generated only 14 pence for the local economy.

This data comes from work undertaken by a local resident Tim Boyde who tracked the finances of a Cornish vegetable box scheme, Cusgarne Organics, based near Truro. He followed the trail of the box scheme's income to monitor exactly where its turnover was spent, how much of it was local expenditure, what happened to this money at the next level of spending and so on. A key part of the study involved tracking the spending patterns of Cusgarne's staff and suppliers.

Similar figures were also found with Graig Farm Organics, another farm where most staff and suppliers are local. These indicate that if every person, tourist or business could switch just one per cent of their current spending to local items or services, this would put £1 million extra directly into the local economy every week, and that before you place a value on indirect or non-economic benefits.

More significantly, in the context of a debate about food in education, similar work with Heeley City Farm in Sheffield – a farm and environmental education centre for young people – showed that for every £1 spent locally this organisation generated 93 pence for the local economy, showing how beneficial such social enterprise can be.[8]

The connection between modern consumers and food producers has been broken by the modern food supply system. As a result children growing up today have little or no direct knowledge and experience of where their food comes from outside of the supermarket. Serving local food at school is a primary educational venue for establishing communication and trust with consumers of tomorrow along with positive education about food production and distribution. That trust and understanding will help to put in place the foundations for a healthier food culture that values quality fresh seasonal local produce.

Studies have also shown that spending money on local food purchasing in the domestic sphere is nearly twice as beneficial for the local economy as supermarket spending – and this before you add any environmental benefits. Research by the Countryside Agency[9] has shown for instance that on average upwards of 40 per cent of business turnover 'leaks' outside of the local economy. By finding ways to 'plug the leaks' by creating economic linkages between local businesses, labour, and public bodies, poorer communities can build a healthy local economy. These lessons are especially pertinent for sizeable public sector catering organisations that can potentially double the value of their spending using the delivery of a service to regenerate or support the local economy.

Why 75 per cent unprocessed?

Whether they are still run by local authorities or have been handed over to private companies, large school catering operations are run as commercial enterprises that must meet budget and commercial targets, partly by minimising labour costs. As a result, school caterers seek out the cheapest available foods that meet Government regulations while also requiring minimal preparation or skilled cooking. As the opening chapter of this report has made plain, food manufacturers respond to those demands by making 'junk to a budget' that may sound real but are no more than heavily processed menu items containing little real food and a great many cheap 'fillers'.

Serving such food permits catering organisations to lay off skilled cooks and replace them with unskilled labour retained on poor contracts – with no holiday pay and hours that may easily be curtailed if numbers fall. It helps to destroy any remaining links between what the children eat and where it comes from. Worse, it may tie caterers into restrictive supplier contracts that make them increasingly dependent on ready prepared ingredients often loaded with additives that in effect 'add value' only to the margins of the wholesaler and not to what the children eat.

Many parents can see right through these issues from a cursory glance at the menus. For instance, in a survey of parents conducted at Sopley school

Lunch time

Pupils at Southdown Community, Nursery and Infant School, Bath, school enjoy their food prepared on the premises from fresh, wholesome and increasingly local ingredients (see chapter 8, page 75).

Choices and consequences

This table contrasts the types of food being advocated and encouraged by Food for Life with examples of conventional school fare.

	Conventional school	Food for Life school
In general	Over processed, disproportionately expensive food often high in fat, salt, sugar and potentially high in other additives	Simpler, healthier, fresh and less processed ingredient options
Potatoes	Pre-prepared potatoes such as shapes, waffles, battered pieces and ready packed pre-prepared pieces	Fresh or frozen potatoes (no additives) served baked, mashed or boiled more often than cooked in any form of fat
Rice	White rice	Brown rice
Bread	Industrially produced and laden with flour improvers	Wholemeal, without additives and made fresh from organic flour where possible
Animal protein	Chicken nuggets, turkey animals/shapes, minced fish shapes, poor quality sausages and similar 'coated' or 'battered' processed items that frequently contain no more than 50 per cent meat or fish	Fresh or frozen minced or pieces of meat, fish or poultry (offering a higher meat and nutrient content per portion size). Organic meat (reared without growth promoters or routine antibiotics)
Eggs	Battery farm eggs (that may be adulterated by antibiotic feeds)	Free range and preferably organic eggs (reared without routine use of antibiotics)
Vegetables	Coated and battered 'vege' burger and pasty products	Fresh or (limited) frozen vegetables in their simple state
Fruits	Heavily sweetened cooked and tinned	Unsweetened fresh, frozen or dried fruit
Puddings	Jelly, processed pastry, cookie mixes, ready mixed crumbles, tinned fruit pie or tart fillings and quick cake mixes. 'Ambient' yoghurt and fromage frais-type deserts or mousses loaded with sugar and other additives	School cooked pies, cakes and pastries made using unprocessed and where possible less refined ingredients such as brown flour and sugar. Low fat, fresh (and where possible organic) plain live yoghurt and fromage frais

in Hampshire in February 2003 many defended their choice of a packed lunch with statements such as "the school food on offer is not healthy enough" and "the emphasis on processed foods (for example breaded 'meat' shapes) does not offer the best value nutritionally for the price." Some went as far as to say "you need to improve the quality of the food and serve fresh green vegetables."[10]

Children need and deserve wholesome dishes made from scratch from the freshest ingredients. Judging by the general uptake of school meals it would seem that a substantial proportion of parents either don't trust what will be served or don't consider it good value for money. Many more parents would greatly prefer to retain substantial control over how much 'fast food' their children eat and would have much more confidence in school menus if they were to include more and varied fresh, seasonal and local produce.[11]

The use of fewer processed foods in schools would help to improve both the perceived and the actual nutritional value of what is offered whilst curbing the additive load entering the diets of school aged children. This would ameliorate a lot of parental anxiety about substances hidden in processed children's food and their impact on behaviour and attainment. That would help win back higher levels of participation in school meals – a shift that could greatly improve the financial viability and ultimately the quality of the service for the majority. More children eating school lunch will in turn release small but significant amounts of parental time and anxiety devoted to weekday food preparation for other educational and leisure activities with their children.

Why reinvent domestic science?

The dissociation now endemic between most consumers and the farming community is emblematic of a wider malaise that ensures the UK's domestic food culture is weak, unhealthy and defined substantially by 'cheapness'. A significant proportion of young parents don't know how to cook for themselves to any significant degree, they were not taught themselves and a substantial majority of parents want schools to teach their children how to budget for food, select good quality and prepare healthy meals.[12]

Designing and delivering 'joined up' food, environmental and health education in schools requires time, imagination, facilities and effort. Equally, learning about where food comes from, how it is produced or how you might prepare it offers many more varied and interesting means to deliver a whole range of other curriculum elements. These can range from basic numeracy (budgets) through citizenship education (hosting a local OAP's luncheon club) to design and technology (menu development), environmental affairs (food miles and agricultural pollution), basic biology (biodiversity on organic farms), and chemistry (soil processes) before you even discuss the lifetime value of healthy eating. This topic and case studies of best practice in this area are discussed in detail in chapter 10 (page 91).

Who runs Food for Life?

Food for Life was established in the spring of 2003 to run the 'Food for Life pilot project' and to offer participating schools a combined expertise in nutrition, school meal catering and local organic food sourcing. A team of people support the pilot project:

- *Jeanette Orrey*
  The catering manager at St Peter's Primary School, East Bridgford, Nottinghamshire. Her award winning work to transform the meals offered by her kitchen to the pupils attending that school is featured widely elsewhere in this report

- *Lizzie Vann MBE*
  The founder of Organix, the children's food company set up more than 10 years ago to introduce babies and young children to the pleasures of an organic diet. Today more than three out of every four children eat some organic food in the first year of life and organic baby food makes up half of all UK supermarket baby food sales. Lizzie's special interest is in the accountability of the food industry to the public and the quality of the food they produce
- *Simon Brenman*
  A specialist in the development of local, organic and fairly traded food supply chains to support the production of high quality food to recognised ethical, social and environmental standards.

Additionally, to help take the project forward into the future, Food for Life has formed a close working partnership with the Soil Association through which the local food links, policy and education teams at the Soil Association can support the development of local supply chains for school kitchens and 'joined up' food-for-life education activities with school children. The three key Soil Association staff working as part of the Food for Life team are:

- *Peter Melchett*
  Runs a mixed 360 hectare organic farm in Norfolk that is well known for its wildlife conservation work and high level of public access. Continuing what has become a track record of more than 30 years in environmental activism (most notably as executive director of Greenpeace UK from 1989 to 2000), he currently works part-time as policy director at the Soil Association.
- *Joy Carey*
  A local food network facilitator and adviser, bringing together like-minded people to work collaboratively on developing sustainable local food systems firmly rooted in local communities. She works with the Soil Association in the local food links department.
- *Rupert Aker*
  The farms and schools education manager at the Soil Association. His role is to encourage schools to visit working organic farms, and to provide supporting materials for teachers and children to use in the classroom.

How did the Food for Life pilot work?

The Food for Life team met heads, teachers, governors and catering staff in various schools to understand their concerns and share ideas for improving the school meals service. Where all stakeholders agreed to move forward, a joint vision and action plan was drawn up to set change in motion in what became a pilot school. Where necessary, new menus were developed and assessed by nutrition specialists. Contacts were also made with the best local (organic and non-organic) suppliers to ensure that progress could be made towards the Food for Life targets while remaining within the budget available and taking into account the preferences of pupils, parents and caterers.

Regarding education about food and farming at school, contacts were also made with local farmers and growers willing to host farm visits and help support related activities. Teachers have been offered materials designed to help children grasp the links between the food they eat, their own health and the world they live in. The level of help offered varied considerably since some schools have a history of activity around practical food education under other programmes such as Eco Schools, HDRA's Organic Schools Network and the Growing Schools Initiative.

Food for Life pilot schools

Six schools were sought for the first phase of the pilot. Three lead pilot schools were fully involved by the time this report went to press, in

Ingredients for change

A range of essential ingredients are required to improve a school meals service. These include:

- A committed food service manager, for example St Peters' Jeannette Orrey (pictured below)
- A head interested in and wanting to influence what the children eat, prepared to join up theory in lessons with practice in food provision
- A governing body willing to support change
- An interested parent body that values the social and educational significance of a hot school meals service
- A practical and engaging strategy for pupil involvement that aims to promote taste and enjoyment of food rather than preach about healthy eating
- A skilled and motivated team of kitchen and dining hall staff who appreciate their role as food educators
- Committed local suppliers keen to provide locally-sourced nutritious ingredients of good provenance to schools and willing to work to develop the brokerage and delivery networks required to produce and distribute to schools across a local area.

Hampshire, Nottinghamshire, and Devon (see below for profiles) while two others had confirmed their interest, including one in London, and discussions were underway with several others.

The overall objective of the pilot project is to help a small group of schools test and implement changes in order to become a model to inspire other schools locally and nationally. It is also hoped some of these schools will be able to work constructively with local authorities and catering services or contractors so that they too can adopt and replicate similar practices.

Each pilot school entered the project from a different starting point on the path towards achieving Food for Life targets and all bring specific experience of more relevance to different schools (depending on their circumstances). Some of the insights gained to date by some of the pilot schools are featured in more detail elsewhere in this report (see Chapter 8, page 71). The pilot group will offer a coherent model that can be repeated in any school or by any contractor wanting to improve provision in line with Food for Life targets.

St Peter's Primary School, East Bridgford, Nottinghamshire

In recent months this medium sized school (220 pupils) located on the fringes of Nottingham's prosperous eastern commuter belt has become well known for its award winning efforts to pioneer local (non-organic and organic) ingredient sourcing for its kitchen. Menu reform has gone hand in hand with access to better quality ingredients and expansion of food education within the citizenship curriculum. For many meals some basic ingredients plus a bit more graft now substitute for a range of previously processed or convenience foods. The children still get to eat pizza but the bases are home made from local milk, organic oil and organic flour. They also get bolognaise but it's made from quality beef reared by a farmer down the road. By saving money on bureaucracy the ingredient spend has virtually doubled while the meal charge remains absolutely identical to those levied in every other school across the county. By serving better food, the kitchen team use their skills more, work better hours, are paid better and feel they have regained their self respect. Better still the meals service makes money now, though margins are helped considerably by soaring demand. Above all, the children and staff eat well.

Eat and greet

At St Peter's Primary School, the way food is eaten is as important as the quality of the food. The children sit at round tables covered with a tablecloth. Parents can also come in for lunch any time they like and on Wednesdays the OAPs local lunch club meets to eat in the dining hall with the children.

A detailed case study of this school can be found in Chapter 8, page 71.

Investing in ambience

Under the recent reform package in Scotland, schools must review their current procedures and identify ways to improve the atmosphere and ambience in dining facilities, to encourage a better social experience of schools meals. These efforts are supposed to look at seating, queuing, length of lunch break, time available for eating, supervision of meals, labelling of meals, information on menus to parents.

This requirement reflects awareness that some of the most potent disincentives for eating well in school are time wasted in queues coupled with crowded, noisy, dirty dining rooms and limited time to eat, often to make way for a second or even a third sitting.[12] Research completed last year for the Scottish Executive also found that pupils of all ages care as much about being with their friends at lunchtime as they do about what or where they eat and that group decision-making and peer pressure directly alters food choices and school meal take-up.[13]

At St Peter's Primary School, Nottinghamshire, the catering manager and the head know just how much the social experience around mealtimes affects how pupils regard school food. Responding to this the school has developed a raft of detailed strategies that together have transformed the eating experience.

To begin with eating times are a staggered arrangement managed by the dinner ladies. Nursery and reception children are fed first, with others let free to play outside until they are called in by year group. An alternating rota ensures no group gets to go first every day. As a result, waiting times are kept to a minimum and the entire school is fed comfortably within 40 minutes. Most food remains in the kitchen until it is required on a servery that is deliberately small, well lit and inviting.

The tables are kept small (for 10) and each is set with a blue chequered PVC backed cloth that is bright, cheerful and easy to wipe clean. Food is also served on to plain white china plates and bowls rather than the lurid plastic 'flight trays' commonly used in many schools. Cutlery is stainless steel and full size. Water is placed in jugs on every table and wood-look trays used to carry food to the table are removed by the dinner ladies who take them back to the servery pile for other children. As parent Lynn Savoury suggested, "Some people might consider it all a bit old fashioned – and we might be pushing it to ask for napkins – but it's very nice to see the children encouraged to sit and socialise over lunch rather than simply shovel food down their necks."[14]

With around 80 per cent (180 out of 220) pupils regularly taking up her largely home made food, catering manager Jeanette Orrey can also afford the flexibility of allowing pupils to opt in and out of school lunch on a daily basis according to their preference. "Parents get a copy of the forward menus for the coming week, so they can check to see when a child might want to pack a lunch because nothing from the kitchen suits their tastes." Those with their own packed lunches are also welcome to sit anywhere they like so they may eat with their friends. Parents can also come in for lunch any time they fancy, and many do, paying just £2.00 compared to the children's £1.70 – a price that remains identical to that charged by every other local school.

In addition, on Wednesdays the OAPs local lunch club meets to eat with the children in the dining hall. Though higher than the children's own tables this always has extra spaces so staff or pupils are free to eat with their visitors if they wish to.

The overall result is a calm, courteous atmosphere where children clearly enjoy each other's company, talk avidly amongst themselves and with their guests while eating their food enthusiastically.

Blackawton Primary School, Devon

This small rural school (120 pupils) joined the Food for Life pilot after it opted out of the county-wide provision run by the Devon Direct Services, the local authority catering company. Within the context of local campaigns to 'eat local' in this large rural county there is great interest in the progress of this school.

Early work with this school focused on menus and communication with parents as part of a broader strategy to win back much higher numbers to school lunch – essential for this school to continue running a viable service.

The governors and head have also had help with planning the budgetary changes required in various parts of the school in order to take action towards each of the Food for Life targets. By the second half of the summer term much of the supply chain development work undertaken with the school had looked for ways to build sustainable links with local business – some of them a direct development of parental involvement in the life of the school. Curriculum development is planned for the coming school year based around farm visits involving the new local vegetable supplier.

A detailed case study of this school can be found in Chapter 8, page 76.

Sopley Primary School, Hampshire

This small rural school (84 pupils)did not wish to opt out of the local contractual provision. It has chosen instead to push for menu reform and local sourcing while remaining within the basic relationship with Hampshire County Council Catering Service (HC3S).

The school actually began raising awareness of food issues among pupils and parents before it started to discuss school menus. A special 'Food Week' in February 2003 was used to introduce the concept of 'Five-a-Day' and a variety of fresh fruits and foods to all involved in the school. This led into work with the children to develop their ideas about improving what was offered for lunch. Working with the existing contractor a new set of seasonal menus were devised to run on a fortnightly cycle that would help deliver better nutritional value to the children.

Under the new menus much of the food does not look substantially different from what was served before. However, the children know they are eating far fewer additives, less sugar and less fat while also getting fewer pesticide residues. They also feel they have more scope to make tasty choices for eating healthier amounts of fruit and vegetables without losing out on treats, partly because many of those are also home made and more wholesome. Particular effort has been made to source local fresh produce and to replace processed meat products with local and organic meat.

While they are still employed by the contractor, the kitchen team now feel a much closer part of the school and have felt supported in their demands for more practical training and better pay to reflect the more skilled and valuable work they now love doing.

A detailed case study on this school, including examples of the revised menus and their nutritional analysis, is provided in Chapter 8, page 78.

3 Where did we go wrong?

It was recognised more than 120 years ago that to neglect the daily food requirements of school children was neither decent nor sensible. That basic imperative has not fundamentally changed. School children need and deserve the best quality food available as a freshly cooked meal at the heart of their educational day. As the Scottish Executive has recognised, good quality school food should be considered a basic element of any effective national preventive paediatric health care policy and a central principle of a well founded, socially inclusive education system

"The practice of including a meal in the educational day is as old as monastic and collegiate teaching… There are few better places than the table to teach the young to be tolerant, to share, to be self reliant and easy mannered."
Nan Berger OBE FHCIMA, school catering specialist[1]

Feeding the poor

School meals began in the 1860s as a charitable activity, but in just over a decade they had become a recognised necessity – a shift being repeated more than a century later with modern school breakfast clubs. Once elementary education became mandatory with the Education Act of 1870, it was rapidly observed that children arriving at school poorly fed were incapable of concentrating. Looking backwards but with an eye on the present, it is also worth noting that the meals provided at the end of the 19th century were observed at the time to be better than those families considered quite well off could provide for their children themselves.[1]

In 1906, severe malnutrition among recruits for the Boer War led the Government to give local authorities (voluntary) powers to subsidise school meals for the needy. From 1914 restructured subsidies ensured wider take up for a few years, though by 1922 most of the provision had fallen away. During the depression years school meal provision rose and fell with political fashions over public spending and malnutrition among the poor. The latter led to the provision of free milk to the needy from 1934. During the second world war, policy began to shift school meal provision away from the last vestiges of the Poor Law as school canteens replaced 'feeding centres' in order to deliver basic nutrition not addressed via domestic food rationing. The first nutritional standards for school meals were set in 1941 when school milk was made a procurement priority.

Nourishing them all

In 1944 the Education Act gave local authorities a statutory duty to provide free milk for all plus a meal "similar in all respects to the main meal of the day", delivering roughly a third of the daily nutritional needs at an approved price (that could not exceed the cost of the food) to all who wanted them in maintained primary and secondary schools. A Ministry of Education circular dated 1945 described school meals having "a vital place in national policy for

nutrition and well-being of children"[1] and by 1947 the Government met the full net cost of providing them. The establishment of this universal service brought about the era of freshly cooked meat, two veg' and substantial hot puddings that came to characterise school food for nearly 40 years.

Watering down the menu

With its 1980 Education Act the Government dismantled all vestiges of support for the established approach to school nutrition by removing most of the central controls that had governed the service since 1944. In her book a decade later, Nan Berger, a leading member of the local authority catering profession judged this legislation to be "a deliberate act of 'political vandalism' calculated to destroy an invaluable public service."[1]

In the name of saving public money and encouraging innovation in school catering this legislation relieved LEAs of any obligation to provide a fixed price meal of specified quality for all children. It left local authorities free to set their own political or spending priorities and to determine the type, price and nutritional content of meals they served. Free school milk for five to seven year olds also became a discretionary provision. The only remaining statutory requirement was to offer free meals for children entitled to them.

Several counties disbanded their service immediately. Many more turned secondary school canteens into cash cafeterias. No guidelines were issued about the nutritional value of free meals under the new regime, even though they were retained to provide what were still assumed to be the only substantial daily meal for children entitled them as a free social benefit.

Early calls for new nutritional standards

In 1982 an all party House of Commons report[2] called for new nutritional standards to be issued in the form of advice to LEAs, accompanied by a threat to impose minimum standards if this advice were to be ignored.

The Government rejected those recommendations and brought in a programme of public spending cuts that made LEAs charge for meals and milk in all cases except those where parents received income support. At a stroke, half a million children lost the right to free school meals and parents were told to apply for cash under the Family Credit scheme. This reform proved the first devastating blow to the basic cost effectiveness and viability of many local authority school meals services.

Contemporary to these changes two expert committees – the National Advisory Committee for Nutritional Education (NACNE) and the Committee on the Medical Aspect of Food Policy (COMA) – each published reports that presented a major shift in general assumptions about healthy eating.[3, 4] Following this shift a balanced meal became one that avoided or helped prevent common diet-related non-communicable illnesses and disease by reducing the intake of fat, added sugars, salt and alcohol (rather than a way of eating to avoid nutritional deficiencies).

Schools rushed to replace processed with fresh foods, to lower fat usage and to replace white with wholemeal flours to raise fibre content in food offered. Schools also became the venue for a range of interactive educational projects using cartoon and other characters to talk to children about healthy eating, many of them linked to if not funded by local authority healthy eating campaigns.

In 1986 the Egon Ronay organisation surveyed school meals and concluded that state school children enjoyed a healthier and more varied diet than public schools. Looking at an average primary school menu today it is hard to believe that as recently as 1986 there were schools serving wholemeal low fat lasagne or main course salads made from wholemeal pasta, apple and sultana.

The same Ronay survey also confirmed however that school tuck shops were already doing a roaring trade in sweets and snack foods as a fast food 'grazing' culture began to impact more directly on school eating habits. In April 1986 a

Department of Health and Social Security survey *The Diets of British School Children* highlighted similar issues when it concluded that children were eating more chips, crisps and other potato products than any other single food and a minimum amount of more nutritious foods such as fish, lean meat, vegetables and fruit.

In 1987, a private members bill introduced by Tony Lloyd (Labour MP for Stretford) sought once again to reinstate nutritional standards for school meals but failed after its second reading. The Government continued both to ignore the advice of NACNE or other expert groups and to argue it should be the job of local and not central Government to decide whether such standards were necessary. Faced with that attitude from Government, smaller budgets and the relentless rise of convenience and ready prepared foods, it was probably inevitable that school catering managers would seek to drive down labour and ingredient costs by offering their young consumers more fast food.

The wasted decade

In 1992 the Caroline Walker Trust, a working party of leading nutrition, child health and diet-related disease specialists, published benchmark quantitative nutritional targets for school caterers – *Nutritional Guidelines for School Meals*.[5] It was to be five years however before this seminal work was to make any impact on education policy. Moreover, when the then Department for Education and Employment finally published *Eating Well at School* in February 1997 this took as its base the earlier report's nutritional framework but offered only voluntary rather than statutory guidance to school meal providers.

In 1998 a new Labour Government announced a determination to secure the future of the school meals service and upgrade its quality with a consultation paper called *Ingredients for Success*. This document presented two options for the regulation of school meal quality: quantitative nutritional standards (similar to *Nutritional Guidelines for School Meals*) or a system of 'food-based' standards built around requirements to serve particular food types on a specified number of occasions during the school week.

In the public debate that ensued the House of Commons' Education and Employment Select Committee rejected the food group approach as unsuitable. It called instead for the compulsory element of new regulations to be based on scientific, quantified nutrient-based guidelines to support the specification of minimum nutritional standards in school meals contracts.

The Government subsequently claimed that nutrient-based rules would cut directly against calls from the caterers themselves for any standards to be made as 'non-prescriptive' as possible. In the most radical changes made to school meal provision since 1980, the Government re-established a duty to provide a paid meals service but chose to impose standards based on food groups rather than those recommended by nutritionists. The quantitative nutritional guidelines developed by the Caroline Walker Trust remain simply that; guidance parked up and left to languish in an appendix to the standards.

In England no attempt was made to evaluate school meal provision before these food-based school meals standards took effect in April 2001 and nothing was done for the first two years to monitor their impact. Prices duly rose in many areas to deliver 'improvements' required by the standards, but as the next chapter will illustrate, quality has not improved.

One reason for this is the level of investment required to address the legacy left by twenty years of savage under-investment. Many school kitchens and dining areas are in serious disrepair. Catering equipment is often totally inadequate to meet modern requirements – there may be great capacity to deep-fat fry, but little or none to grill or bake. Schools in areas where local education authorities (LEAs) took advantage of deregulation to close the meals service and strip out school kitchens now have a 'duty to provide' lunches but few if any of the necessary facilities to do so.

Food-based standards

Compulsory from April 2001 across UK primary schools. Lunches must contain at least one item from each of the following four main food groups:

- Starchy foods such as bread, potatoes, rice and pasta. Starchy food cooked in oil or fat should not be served more than three times a week
- Fruit and a vegetable must be available every day. Fruit-based desserts must be available twice a week
- Milk and dairy foods
- Meat, fish and alternative sources of protein:
  i. Red meat must be served at least twice a week
  ii. Fish must be served at least once a week
  iii. Cheese may be included in the meat/fish protein group.

It is also recommended that drinking water be available to all pupils every day free of charge and that drinking milk is available as an option every day.

It is the responsibility of the LEA or, where a budgetary element for school meals has been delegated to them, a school's governing body to ensure that food available at lunchtime meets with these minimum standards.

Where they wish to any LEA, catering company or individual school can set and demand compliance with higher nutritional standards of their own.[6]

Scotland improves school food

While the Government in London seems reluctant to face up to the raft of inherited problems that perpetuate poor eating habits in schools, the Scottish Executive has taken a far more constructive approach.

Scotland has particularly poor levels of public health with higher than average levels of heart disease, stroke and obesity. In early 2003 the Scottish Executive launched a major healthy eating campaign and alongside this a substantial package of improvements intended to drive up nutritional standards in schools and improve child health (including £63.5 million in extra funding).

The changes made to school meals implement many of the recommendations made (and costed) in November 2002 by an expert panel on school meals in a report called *Hungry for Success*.[7] These include:

- New quantified nutrient-based standards for school lunches (based upon Caroline Walker Trust guidelines)
- A detailed monitoring framework for ensuring these standards are met and delivered in a partnership between local authorities, catering professionals, teachers, parents and pupils.
- A requirement that all meals include at least two portions of fruit and vegetables and a serving of meat or fish
- Larger portions of more nutritious food at no further cost to parents
- Fresh, chilled drinking water available free in all school dining rooms
- A restriction on fizzy drinks and chips
- Free fruit daily to all children in the first two years of primary school
- A review of current procedures followed by improvements to enhance atmosphere and ambience in dining facilities to encourage a better social experience of schools meals (to include looking at seating, queuing, length of lunch break, time available for eating, supervision of meals, labelling of meals, information on menus to parents).

The new diet is expected to start in all primary and special schools by December 2004 (and in secondaries by the end of 2006). Linked to this, school meals facilities will no longer be free to advertise or promote food or drinks with a high fat or sugar content. There will also be a programme to raise awareness of the entitlement to free school meals.

In addition, taking a 'whole school' approach to the provision of healthy food and better nutrition, schools are expected to endorse school meals and promote better health through what is taught in classrooms, served in breakfast or out-of-school clubs, and sold in vending machines and tuck shops.

Though highly dependent on effective partnerships between all concerned, this strategy goes much further than current policy and intervention elsewhere in the UK. While placing a clear priority on nutrition, equity and dining facilities in the early phases of change, it offers ample scope for future policy development and practical initiatives to address processed food quality issues as well as local sourcing and sustainable supply chains.

Looking to build on these changes Child Poverty Action Group (CPAG) Scotland also continues to campaign for the universal provision of free school meals to all primary school children. Pointing to the success of such provision in Scandinavia – where Finland and Sweden have provided universal free school meals for 40 years and now reap the public health rewards – CPAG Scotland believes such a change is the only effective way to remove the stigma attached to means-tested free school meals.

Proposals of this kind were made to the Scottish Parliament last year, though that proposed Bill failed in June 2002. The idea was revived in May this year when a revised School Meals (Scotland) Bill won the cross party support of thirty seven MSPs from five political parties. While this support was not enough to take the revised Bill to its second stage, CPAG Scotland's campaign for universal free School Meals is winning wider support from The Parent Teachers Council – which opposed the earlier school meals (Scotland) Bill – and the Education Institute of Scotland along with the *Scottish Daily Mirror*. Glasgow City Council, another opponent of the first bill, recently announced that it will be providing free school meals to all primary schools within its area (free breakfasts are already provided in all Glasgow primary schools).

As such the Scottish approach offers a robust starting point for the detailed reform of primary school meal provision in England and Wales.

4 Inadequate standards

Food-based school meal standards implemented since 2001 are failing to deliver adequate nutrition to our school children. Indeed, the evidence emerging shows that this policy needs to be replaced by quantified nutritional standards, tight menu guidance and adequate levels of free school meal subsidy. Nothing less will oblige caterers and schools to abandon a food and dining culture where in the name of 'giving children what they want' they spend the bare minimum on ingredients and shovel poor quality food on to children's plates

"Healthy eating and physical activity are fundamental to proper growth and development in childhood, and essential for good heath and well-being in later life. To help children and young people develop patterns of healthy eating from an early age, it is important that the food and eating patterns to which they are exposed are those which promote positive attitudes to good nutrition."
Caroline Walker Trust[1]

Failing standards

Although the 2000 regulations apply to LEAs there appears to be no enforcement mechanism associated with them. The education ministry is reliant on local authorities setting appropriate specifications in contracts with caterers, backed-up by a review process undertaken by either a contract monitoring officer and or a trading standards department (in some areas only).

In England no baseline evaluation of school meal provision was made before current standards were imposed (against which to measure future improvement). Despite assurances from the Government, the standards have not been properly monitored. By December 2002 the FSA had begun prompting OFSTED to take on this role – to examine school and packed lunches, tuck shops, breakfast and after school clubs as a new and separate inspection in schools. No detailed plans have been issued and no new money has yet been earmarked to pay for such activities.

Faced with growing evidence of problems with the food-based standards, Department for Education and Skills (DfES) and the FSA commissioned research in May 2003 to assess compliance with statutory nutritional standards "and the associated guidance" in a sample of 100 secondary schools nearly two years after the standards took effect. It will also assess whether the food consumed by children meets nutritional guidelines, such as those of the Caroline Walker Trust, and gather relevant background information such as price of meals, time allowed for eating, the availability of food from other sources and the nature of the contract with the caterer. Sadly however, the study has not been extended to cover primary school meals.[2]

Monitoring by FSA Wales

Some location monitoring work was undertaken in Wales for the Wales' Food Standards Agency (WFSA) by Beaufort Research to assess food provision and consumption patterns in schools before the Nutritional Standards for School

Lunches (Wales) Regulations 2001 took effect and to monitor their impact one year later.

An initial observational survey undertaken in 2001 in both secondary and primary schools was designed to provide evidence of the types of food on offer in schools and to quantify the food choices of pupils prior to the introduction of the legislation in September of that year. This study "established a benchmark that could be repeated at a later date to quantify the extent of progress" under the standards.

In 2002 a new 'wave' of research was commissioned to allow direct comparison to be made with that benchmark. In this phase observations were recorded for 6,142 pupils in 16 primary schools across a total of 77 primary school days – observational totals that "closely resembled" those of the benchmark survey. Observers were stationed close to where the children collected their food and where they ate it. Only items provided by the school were included (pupils bringing their own packed lunches were excluded from the study).

The draft results prepared in November 2002 are the basis for what is presented here. They have not so far been published by WFSA. In June 2003 Beaufort Research confirmed to the Soil Association that the report had been through many revisions but that the basic data remain unchanged. WFSA also confirmed that "the data was accurate" but that the agency was still waiting on the research company to 'improve' the report in order to make the results of the study "more presentable."[3]

2002 – Key findings in Welsh primary schools

Set meals featuring single main dishes remain the core of primary school meal provision (91 per cent of schools) so food choices are by definition restricted in most primary schools. Comparisons to secondary school food consumption patterns observed in the same study suggest this restriction helps limit 'unhealthy' choices.

A year after the standards took effect, "the amount of fruit available does not seem to have changed post-legislation." A separate fruit item or portion remained unavailable 13 per cent of the time in primary schools, down only two per cent on 2001 (though still within National Assembly legislation). Consumption of fruit items is even lower at only nine per cent, though this rises to 27 per cent when you include fruit juice and fruit puddings.

Vegetables were more available overall in 2002, but the largest increases were for coleslaw (plus 11 per cent) and salad (plus eight per cent). Vegetables also remained completely unavailable in primary schools nearly one fifth of the time (19 per cent in 2002 up from 18 per cent the year previously) and for no specified reason. Separate portions of vegetables were consumed by only 30 per cent of primary school children in 2002 with a further five per cent eating salad. In addition to this baked beans were eaten no less than 20 per cent of the time, an observation which prompts the question as to whether this activity substantially displaces total consumption of other fresh vegetables.

Processed meat products (pies, sausages, burgers and pasties) remain significantly more popular than meat cuts, though – as the researchers observe – the provision is highly weighted towards the former so this outcome is more of an inevitability than an indicator of preference.

Fish provision rose by five per cent to 36 per cent, but a noticeable shift occurred whereby crumbed fish items were served 13 per cent more often in 2002 than the year previously. Fish consumption rose marginally.

Specialist vegetarian dishes were served nine per cent less often (only 47 per cent of visits) in 2002.

Chips were still served the equivalent of one day in three. Jacket potatoes rose significantly (up 11 per cent to 31 per cent of the time in 2002), but boiled, mashed or roast potatoes fell over the year. Moreover, a further category termed 'other types' that must include highly processed items like waffles or 'smiley faces' rose from 23 per cent to 30 per cent. Primary

school pupils eat fewer chips because they are less frequently served, although even this positive change varies by area considerably.

Pasta was offered slightly more often one year after the introduction of the standards (up by four per cent to 25 per cent of visits in 2002) but brown pasta is virtually never served. Rice fell by from being available 15 per cent of the time in 2001 to just nine per cent of visits in 2002 and brown rice remained virtually unknown. Rice was however chosen 12 per cent of the time, a figure that suggests demand outstrips supply.

Despite their associations with dental decay, sugary drinks – squash or similar – are still drunk much more widely in Welsh primary schools than fruit juice and water combined. Milk also remained unavailable at lunch in primary schools 75 per cent of the time in 2002 – a failure that appears to cut against a National Assembly recommendation for milk to be available everyday in Welsh schools (unless the schools concerned are providing milk at a separate time in the school day).

Which? survey on school meals March 2003

The picture emerging from the Welsh survey work is echoed fairly closely by research undertaken earlier this year in England and Wales by the Consumers' Association.[4]

This study was undertaken using a combination of two-day food diaries kept by school children during a week in October 2002, interviews with some of those children and schools' questionnaires. For this study diary data was averaged to a daily figure. Using relevant food composition data lunch intakes were compared to intakes for the entire day and with the Caroline Walker Trust's quantified nutritional guidelines. The intakes of specific food groups during school lunch were also compared with current food-based standards for school meals.[5]

This work confirmed that foods most typically eaten at primary school lunch were coated chicken, turkey or fish shapes, pizza, chips, potato waffles or other processed potatoes shapes, mashed potato and pasta, baked beans, cakes, cookies and ice cream. Around two-thirds of primary children are eating a starchy food as part of their school meals (mostly chips, smiley faces or other fat-added potato products) – though this the researchers stressed is actually in line with current guidance.

Intakes of red meat or fish (and by implication many essential nutrients) were observed to be lower than recommended levels. Likewise only half the children had a vegetable with their lunch and within this baked beans was the most popular choice. Also, while many might choose a vegetable, far fewer were observed to actually eat them from their plates. Only 10 per cent had a fruit-based dessert. Milk was served with less than a third of lunches, (despite the notion that it or dairy foods should be served every day) and soft drinks were still found to be replacing milk or water at least 25 per cent of the time.

In short, though menus confirm many schools are offering a wider choice that would appear to deliver to the requirement of the food-based standards, meals eaten are falling well short of the standards in respect of fruit, vegetables, red meat, fish and dairy foods.

A response from LACA

Local authority caterers did not like the *Which?* report's findings. Responding to the Consumers' Association research and much of the wider press coverage that this generated, LACA issued a sharp response in defence of its membership by arguing that the blame for poor eating habits cannot be laid at the door of school caterers. "How can schools hope to change children's eating habits and diets if this is then undermined by parents and other influences outside school?" said LACA, before going on to argue that "improving children's diets cannot be achieved through school meals alone, nor can it be the sole responsibility of the schools or school caterers."[6]

Daylight robbery

On average nationally ingredient spend runs at between 31 and 36 pence per child per day in UK primary schools.[7] By way of a comparison, Government figures supplied to the Soil Association in April 2003 suggest that HM Prison Service currently spends £1.74 per prisoner per day on food ingredients. Given that the main meal of the day should supply around 35 per cent of the daily nutritional needs, it would seem conservative to allocate at least 35 per cent of the daily ingredient spend to such a meal. At that level, getting on for double (60 pence) is currently spent on prison lunch ingredients compared to that currently spent on school lunches. Moreover, the practical disparity is much wider in reality than this simple comparison suggests because school food budgets are not supplemented or cross-subsidised by the large amounts of cheap fresh produce supplied by many prison farms into the prison catering service. For this reason sources within the NHS, amongst academics and health promotion groups working with the prison sector have suggested to the Soil Association that net ingredient spend on prison food is probably higher than the level cited here.

Somerset

On the basis of his recent visits to school dining rooms, Julian Feltwell, principal trading standards officer for the unitary authority of North Somerset would dispute the assertion that school caterers do more than most to put healthy food in front of children.

With a population of nearly 190,000 North Somerset runs from the southern edges of Bristol down as far as Weston-super-Mare. Within the authority some 72 primary and secondary schools (out of 78) are serviced by one large private sector catering company under a contract up for renewal in 2004.

Working on behalf of South West of England Regional Co-ordination of Trading Standards (SWERCOTS),[8] Julian Feltwell has been undertaking a survey of school food provision and consumption since the current standards took effect in 2001.

The significance of this work partly reflects its value to those charged with delivering services within the regulatory requirements of compulsory competitive tendering. All local authorities have to subject aspects of their services to market testing to see if they are achieveing Best Value. A large number of authorities in the south-west and of a similar size to North Somerset all need to test their school meal services over the next 18 months for Best Value. In anticipation of this process, a group of contract monitoring offficers have formed a regional benchmarking group for school meal provision.

In the SWERCOTS study food samples and menus are being analysed in reference to their energy, protein, carbohydrate, total fats, (extrinsic) sugar, calcium, sodium, Vitamin A and folate content. In short this study is examining whether the food served and eaten is delivering to targets set in reference to those developed by the Caroline Walker Trust and appended as guidance to the current regulations. Monitoring is being undertaken one school at a time and over a single week because the guidance values are based on averages per child prepared from totals for a given meal type sold across an entire week. Monitoring covers what is served and what is being chosen, by those who are paying and those who are non-paying at the till point.

SWERCOT's school meals monitoring study results will not be published until after this report goes to press. Julian Feltwell is however adamant that in his experience, "caterers are providing the options required under the food-based standards but they are also very consistently offering the routine fast food options alongside the healthier choices almost all of the time."[9]

Julian Feltwell accepts the argument that there are deep rooted issues of education that need to be dealt with by more than a basic nutritional prescription. But, he is equally clear that "school catering contractors have limited interest in kids eating well, far from it." On the basis of what he has observed and heard kitchen staff confirm he believes "a rather cynical balancing of the menus appears to be widespread within the school catering sector."[9]

By clever planning across the menu cycle the more streamlined (low fat, high protein, fresh fruit or vegetable) options are routinely 'opposed' by cheap and popular choices often loaded with fat and carbohydrate or sugar – all of it served in the full knowledge their will be less demand for the (more costly) healthy choice. As Julian Feltwell suggests "A menu cycle can be made to look balanced enough, but if you monitor what is being eaten and multiply the numbers of meals eaten by the numbers consuming particular options – then you get a very different picture."

He suspects the practice of 'menu opposition' is probably more easily implemented in secondary schools but it may also be more easy to detect and observe in that sector. It can still be seen on a primary school menu – for instance when the only time fresh fruit salad is served in a fortnight it is offered as the choice instead of chocolate sponge and chocolate sauce or offfering apple flan versus a chocolate eclair. More generally, Feltwell would argue that primary school children simply make their choices on the plate more often than they can or do at the servery. Either way, he predicts that

the SWERCOTS study results will show that primary children do not choose healthy options, especially when deliberately tempted with alternatives.

Lastly, while much of his work relates to services rendered by the most dominant local provider, Feltwell has taken care to do some of his monitoring in schools served by at least three other private contractors. On the basis of those visits he is confident the basic drivers and patterns differ little across the entire school catering sector.

The reason for this is simple: because school catering has been made the commercial arm of every school or local authority rather than a basic facet of the education service.

Exception not the rule

"In June 2003 during one week of dining hall location monitoring in a secondary school with approximately 900 pupils, we recorded only one banana, two apples and around eight portions of vegetables pass the till point."
Julian Feltwell, principal trading standards officer, North Somerset Council

New quantified nutritional standards

All of this evidence makes plain why and how the current food-based nutritional standards are failing to deliver improvements in school children's diets. These should be replaced as a matter of urgency by quantitative nutritional standards, as developed and recommended for more than a decade by the Caroline Walker Trust (see Appendix 1, page 103).

New standards should also be coupled with strict, enforceable national guidance to require menu reform. The goals of this process should be to:

- Ensure at least 30 per cent of all food ingredients served to primary school children are wherever possible organic (see Chapter 2, page 25)
- Deliver new seasonal and culturally diverse menus for which at least 50 per cent of menu ingredients can be sourced sustainably from within the local region
- Ensure the sheer quantity of ready prepared and processed food is cut back to no more than 25 per cent of all ingredients used to prepare food served at lunch time to primary school children.

Making nutrition count

During the consultation process that led to current DfES food-based school meal standards, caterers argued that quantitative nutrient-based standards would be both overly prescriptive and tyrannical to manage, imposing a huge workload on catering planners.

Many of the large private sector catering companies argued that the staff they employ would be incapable of assessing the nutritional quality of the food they serve on a week by week basis. As a result the Government was able to claim that support for nutrient-based standards was largely confined to health professionals, most of whom saw a role for them as the base for standard setting or as a means of monitoring that food based-standards were providing adequate amounts of key nutrients.

In line with the opinion of many nutrition experts and health action groups, the Soil Association believes quantified nutritional standards offer the most flexible and suitable approach because they would require and encourage innovation to develop tasty, modern, whole meal menu options capable of delivering a wider range of nutrients in a palatable form to more children. Moreover, by using modern computer software there is no reason why caterers could not closely evaluate the nutritional content of the food they plan and serve.

Two database assessment tools developed by dieticians and software programmers exist that enable caterers caring for the elderly in residential care (CORA) and those preparing food for pre-school children (CHOMP) to create and evaluate menu plans and to monitor essential nutrient delivery across menu cycles with reference to the Caroline Walker Trust nutritional guidelines. An earlier tool, the School Meals Assessment Programme (SMAP), was also developed by the National Heart Forum in 1994 to help school meal

menu planners and children to appreciate the importance of a nutritionally balanced menu. However it was a fairly crude program based on the MS DOS operating system and is now out of date.

Improvement in both software and hardware since SMAP was developed means that it is now possible to produce a sophisticated program which is also very easy for both meal planners and monitors to use and would be suitable for use by caterers keen to help children to make healthy choices. Yet, two years after the current standards took effect in England and Wales, no part of the Government has found the money or taken responsibility for developing a modern menu assessment and support tool suitable for caterers wishing to plan better menus, monitor portion sizes or check nutrient delivery. Nor has any recognition been paid to the way in which such a tool could be designed to empower governors and give trading standards officers the means to evaluate menus and monitor school meal provision more effectively.

Meanwhile, a joint proposal from all the stakeholders that developed CORA, CHOMP and SMAP tools has spent three years being bounced back and forth between the education and health ministries in search of a sponsor. Were it to find funding, this proposal would use the latest technology to tailor a menu assessment tool for primary school meals.

As part of its school meal reform programme the Scottish Executive is committed to providing effective computerised menu assessment and monitoring tools to support the implementation of new nutrient-based standards in Scotland (see the previous section) over the next two years.

Once development of a computerised menu assessment tool proceeds with funding from the Scottish Executive, then, assuming it delivers all that is required to monitor school meals against the Caroline Walker Trust guidelines and can be successfully introduced across Scotland, it must be hoped that the similar software can be disseminated for use throughout the rest of the UK.

However, unless the DfES commits to specific quantified nutritional guidelines, there would be no incentive for caterers to use such a program, except perhaps where contracts impose Caroline Walker Trust standards as a condition of delivery, and no sanction for school governors – those ultimately responsible for the standard of school meals – to use in their efforts to monitor catering providers.

5 The real price of cheap

The notion that money can and should be made from primary school meal provision is questionable. Despite the arrival of Best Value and all that this framework is supposed to encourage, the predominant ethos applied in the awarding and management of school meal provision remains that of cutting costs. In the relentless pursuit of cheaper meals, the principal casualties are skilled labour and quality ingredients

"[UK school catering provision is] a public scandal that must be addressed"
Michael Meacher MP, 2003[1]

From the outset of de-regulation and competitive tendering within the public sector it was clear that not all services delivered for decades to meet a basic need could be replaced for less money by a private contractor obliged to make a profit. Margins must, after all, come from somewhere.

One key indicator that confirms that reality is the way in which prices have escalated relentlessly as privatisation has progressed. In a survey conducted by Unison the price of school meals was found to have risen by 5.6 per cent in primary schools between 1995 and 2001 – a rate of increase between two and three times the rate of inflation. Unison attributes this change to the fact that the number of authorities providing wholly in-house catering services had fallen over the same period to only 55 per cent of those surveyed.[2]

Another is the mounting evidence (see Chapter 1) that school meals in England and Wales deliver poor nutrition and do so mainly because progressively less is spent on ingredients for them. Out of an average daily meal price of around £1.56 the amount spent on ingredients in school meals averages between 31 and 36 pence per child a meal.[3] Small wonder that higher quality ingredients and traditional dishes, prepared from scratch by skilled cooks, have been systematically replaced by cheap, ready prepared and heavily processed foods of poor nutritional quality (laced with additives and loaded with fat, sugar and or salt) delivered for assembly or 'regeneration' from chilled, dried or frozen status by de-skilled kitchen staff paid minimum wages.

Who profits?

Secondary school meals have long been recognised as net income earners capable of generating considerable profit. For many years this profit was 'recycled' around the system, either as a cross subsidy for school meal provision in smaller schools (including many primaries) or into the general educational budget for an entire LEA.

With the arrival of competitive tendering many secondaries opted out of area wide contracts, taking a significant income stream with them. Joe Harvey of the Health Education Trust believes that the loss of this cross subsidy helped accelerate the decline in primary school meal quality and left smaller (especially rural) schools or those where meal uptake is lower than average more vulnerable to closure of a hot meal service.

More recently, since primaries have won the right to request control of their food budget if they choose to, Harvey believes this process is being repeated by larger primary schools to the detriment of those remaining under area-wide local authority contracts. Anecdotal evidence supports the argument that choices made by larger and potentially more profitable primary schools are becoming a more sensitive issue, not least in areas served by private contracts. This is well demonstrated by the experience of a medium sized primary school in north London during the latter half of the school year 2002/03. Having announced its intention to opt out of a borough-wide contract (due to take effect in September 2003 with a major private sector catering company) the school began looking for a new contractor to supply their stand alone meals service. To support these discussions it requested information from the existing catering supplier (for example on staff terms and conditions). Months later this information was not forthcoming, despite repeated requests both from the head and the governors and intervention from the head of the LEA.[4]

The sorry tale of Islington

After the demise of the Inner London Education Authority, a local authority company Boroughwise Catering was set up in 1991 and ran the school meals service for the London Borough of Islington over two consecutive contracts until the summer of 2002. At this point the LEA awarded a new long term contract to Scolarest which took over the staff and began running the school meals service from September 2002.

Awarding the contract

In 2000 in response to the legal requirements of Best Value rules, the council undertook a benchmarking exercise. As part of this a survey of the school estate conducted across the borough suggested major investment (upwards of £0.8 million) would be required to reinstate, renovate or repair all school kitchens to requisite health and safety standards. In the light of that information, the Council announced it could neither afford to improve nor continue running the school meals service and that it would have to put the service out to competitive tender. As LEA governor and school meals steering group member Malia Dewse suggests, "The council of course did 'consult' with all the schools who chose the competitive tender option – though this was Hobson's choice."[5]

While Boroughwise Catering had consistently delivered savings and made money, it seems that the proceeds of their school meal service were never ring-fenced for kitchen maintenance or the dining hall refurbishment. Apparently, they had always been 'directed' into the general (educational) budget. Whether these profits were in fact falling by 2000 is unclear. It is a reasonable presumption that they probably were, given that four out of nine secondary schools in the Borough had by that stage opted out to run their own meals service or given notice of the intention to do so.

Betty Odimba, now the catering contract monitoring officer for the LEA (Cambridge Education Associates) worked as manager of Boroughwise Catering in the final months of its old contract. She has told the Soil Association that "the disappearance of the most income generating secondary schools certainly removed a substantial part of the income stream that previously subsidised the entire borough-wide provision of school meals."[6]

Meanwhile, a steering group of council officers and various stakeholders (including parent governors and nutritionists) was formed to oversee the

competitive tendering process. Several potential bidders showed initial interest, but of this original group most withdrew leaving only one interested party, Scolarest, willing to bid for the contract. Faced with this lack of choice it was suggested in some quarters that the tendering process should start all over again, but citing a special provision under EU rules, the council continued negotiating with Scolarest.

After much discussion and some extended delays generated by protracted negotiations over staff transfers, Scolarest was awarded a contract and began serving food in September 2002. The steering group was disbanded, to be replaced by a so-called 'Best Value board', a stakeholder forum for monitoring satisfaction and for discussing problems under the new contract. Of this new board only around 50 per cent of members had previously been members of the steering group.

How goes the food?

From the opening menus, Scolarest's Islington school meal provision proved a bone of growing contention throughout the 2002/03 school year, falling well short of the quality expected and required (by the contract) in many of the schools.

As LEA governor at Montem Primary School and Best Value board member Malia Dewse told the Soil Association in May 2003 "Ever since they started we have had problems with the menu and the quality of food. The cultural diversity in Islington was not reflected in the menus even though we had continually been promised that it would, there was not enough freshly prepared food and there was an increase in highly processed 'shapes'."[5]

Under the terms of the contract, menus are supposed to be revised every term. Scolarest's first set of changes proposed in December were rejected wholesale by the community nutritionist and the contract monitoring officer at the LEA because they failed to address the need to provide culturally familiar food to ethnic minority children and did not contain significantly more real fresh food requiring on site preparation or cooking.

Half a term later the first audit of Scolarest's provision in February found heads confirming no more than 46 per cent satisfaction rates. Under the terms of the contract the satisfaction target is 70 per cent in the first year and rises in subsequent years. The Best Value board therefore demanded rapid action from the contractor to improve service delivery.

Contract monitoring officer Betty Odimba makes regular visits to different schools to see what is served. By May 2003 she was concerned that food provided did not match the menus and fell below nutritional guidelines. Fat and salt content, portion sizes, and the amount of fresh fruit were all of concern along with reports from some kitchen staff that they must make do with whatever they can dream up because delivery vehicles and basic supplies sometimes fail to arrive. By this stage Odimba had also handed over a copy of the old Boroughwise recipe book in a bid to provide practical ideas about how to serve ethnically sensitive food. She remained reticent however that these recipes would make much difference "because they require real cooking with real ingredients."

By half term summer 2003 limited progress was being made on menu revision, driven partly by the publication of new FSA guidance on salt intake for young children. Meanwhile, attention also shifted to requesting specific information on item ingredients, a process made powerful by two provisions in the contract.

To the credit of the parent governors and the nutritionists involved via the school meals steering group during the negotiating process, Islington went further in its contract with Scolarest than the Government's new minimum standards (food-based standards) for school meals by writing into the contract a requirement to deliver to the quantified nutritional guidelines developed by the Caroline Walker Trust. Under this provision Scolarest must in practice work with the local primary care trust nutritionist assigned to the

Restricted in Islington

Additives prohibited from school menu items under the specification set down in the current contract between Scolarest and the London Borough of Islington:[7]

- E102 tartrazine
- E104 quinoline yellow (C1 47005)
- E107 yellow 2G (food Yellow 5)
- E110 sunset yellow FCF (CI 15985: KD and C Yellow 6)
- E120 cochineal (carmine of cochineal, carminic acid CI 75470)
- E122 carosine (azorubine; CI 14720)
- E123 amaranth (CI 16185; FD and C Red 2)
- E124 ponceau 4R (CI 10255)
- E127 erythresine (CI 45430; FD and C red3)
- E128 red 2G(CI 18050)
- E129 allura red
- E131 patent blue V (CI 42051)
- E132 indigo carmine (indigotine; CI 73015; FD and C Blue 2)
- E133 brilliant blue FCF (CI 42090; FD and C B1UQ 1)
- E142 green S (acid brilliant green BS, food green S lissamine green; CI 44090)
- E150 caramel colour (ammonia caramel; sulphite ammonia caramel)
- E151 black PN (brilliant black PN; CI 28440)
- E154 brown FK (kipper brown; food brown)
- E155 brown HT (I 20285; chocolate brown HT).

One additional list specifies five colours, nineteen preservatives (benzoates, sulphites/bisulphites, SO_2, and nitrite/nitrate), five antioxidants, three emulsifiers/stabilisers and nine flavour enhancers (including three glutamates) as additives that "must be justified by the supplier."

A third list describes at least 29 further additives "not acceptable to the muslim community" and unusable for non-meat and halal meals due to their animal origin or content.[7]

contract to analyse its menus in order to show they meet the Caroline Walker Trust guidelines.

Additionally, under the first appendix to the contract specification, the LEA also imposes a long list of additives that are banned or "must be justified" when served in school food (see panel on the previous page). This list is almost certainly a legacy inherited from the days of the Inner London Education Authority. It closely matches those highlighted more than two decades ago in the enduring reference on this topic *E is for Additives* for being banned overseas or of particular concern in respect of their toxicity.

By the middle of the summer term, in response to the requirement to cater more effectively for ethnic preferences, a Halal menu has been introduced in at least two schools. At the time, cooks at Montem Primary School, Hornsey, confirmed that this shift also resulted in the removal of a susbstantial proportion of more processed food items from the menu – a change that avoided serving many of the restricted additives.[5]

How goes the monitoring?

In a further twist to this story schools have not found it easy to collate and return to the monitoring officer the weekly summaries of school meal information that might be required to argue with the contractor about the quality of what was being delivered. Under the terms of the contract schools were given the task of completing this location monitoring, on the presumption (by the school meals steering group) that the contractor could not monitor their own performance. No provision has been made by either the contractor or the LEA to provide special staff or financial resources for this task.

In schools that have supplied data and where scrutiny has been more active, the figures don't look reassuring. In others there is little information. As a result, contract penalties built around location monitoring cannot be invoked. To rectify this a full scale audit was planned for late in the summer term. But as the first year of Scolarest's contract drew to a close Malia Dewse remained adamant that the persistent problems would not evaporate before the start of the autumn term.[8]

Best Value – price versus quality

Introduced from 1 April 2000, a policy termed the delivery of Best Value in public services replaced the Compulsory Competitive Tendering (CCT) framework imposed on school meal provision in the late 1980s.

Under Best Value, local authorities have a duty to provide their services to clear standards of cost and quality by the most economic, efficient and effective means available. More specifically they must demonstrate that they have applied the 'four Cs' of Best Value to their services under review:

- Challenge why and how a service is being provided
- Compare the performance with others (public, private and voluntary)
- Embrace fair competition as a means to efficiency and effectiveness
- Consult with stakeholders.

A service must also benchmark itself against similar services in other councils and where its service is not competitive, the provider must set out a development plan which outlines how it will improve performance.

In theory, Best Value criteria are supposed to emphasise whole life costs rather than simply the initial price of a purchasing decision. As East Anglia Food Links (EAFL) and Sustain emphasise in their recent manual on food procurement in the public sector,[8] under the Local Government Act 1999, Best Value is defined as "the optimum combination of whole life cost and quality (or fitness for purpose) to meet the user's requirement." The same

legislation also demands from local authorities a "continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness." The Government likewise emphasises that a Best Value approach gives those in charge of procurement activity the power to look at more than cost alone, to consider quality, service, training after sales care, or, in summary, overall 'value for money'.

On paper therefore, the replacement of CCT with Best Value – a framework that in principle admits whole life cycle costs are not equivalent simply to price – has been a positive change. In principle it does permit purchasing bodies to specify goods and services in ways than can help achieve the range of less tangible socio-economic and environmental objectives that sustainable development requires.

Yet, in practice, as Morgan & Morley[9] suggested recently, Best Value criteria applied to school catering generally uphold a culture where measurable, quantifiable costs remained king and less tangible (often longer term) benefits do not count.

Carmarthenshire[9]

With a staff of 600 Carmarthenshire County Council's school meals service provides over 20,000 meals a day to a geographically broad client base of 176 schools, most of them (78 per cent) small (providing less than 100 meals a day) and located in rural areas. Turnover including other council catering is approximately £3 million a year.

Carmarthenshire has one of the highest school meal take-up rates in the country (67 per cent of primary pupils eat school lunch every day compared to the national average of 42 per cent). Some schools in the county have 100 per cent take-up rates. Compared with other authorities, costs are some of the highest in Wales, with a primary school meal priced at £1.45.

According to Cardiff University research, costs partly reflect the fact that most meals are fully prepared on-site. With pressure for space within schools less severe than in other counties, there has been relatively little kitchen/dining hall closure over previous decades. Geographical spread also prohibits further centralisation while the small size of some schools makes subsidy essential to keep many kitchens open.

Historically, school food ordering was relatively dispersed (and much of it local) with little or no central management and centralisation. In the early 1990s, in preparation for the introduction of CCT, procurement was centralised and rationalised, partly to overcome cartel-type activities whereby local butchers conspired to keep prices high and quality low, but also to cut costs while raising quality sufficiently to withstand commercial competition from private service providers.

As a result of these changes food suppliers fell from 64 in 1990 to nine today. While these cotracts remain price-driven (50 per cent of the total weighting) supplier relationships are regarded as being much more partnership-based these days to help ensure both quality and efficiency. While Carmarthenshire purchases a significantly higher proportion from Welsh suppliers than other Welsh local authorities, the majority of foodstuffs purchased from local firms are unlikely to originate locally. Despite a stated objective in the community development plan to support the local economy, no guarantees are offered that milk, for instance, originates from Carmarthenshire.

Like most places, school meal provision within Carmarthenshire is now run as a commercial operation, in accordance with financial and operational performance management indicators that must be reported monthly and continuously improved upon through becoming more efficient, more effective, and more customer focused. With income from paying customers and free meal allowance, uptake rates are closely linked to other financial measures and targets. Greater uptake therefore provides greater income.

High overheads have made a supplier's ability to provide 'elements of value-adding support' an increasingly important part of cost calculation in Carmarthenshire. Many ingredients suppliers now provide extra services such as sponsorship opportunities to school meal providers. For instance, both Coca Cola and Brake Bros. sponsor healthy eating literature in Carmarthenshire schools. Such activities are used to curb associated costs for schools or their kitchens so they provide attractive propositions when allocating contracts.

The service also runs in accordance with the council's corporate strategy (a three to five year vision) and their community development plan (10 to 15 years). The catering service feeds into these two visions through a 'health and well-being strategy'. Under this, the catering operation operates a policy of producing as much home-made food from fresh ingredients as possible (in order to control the nutritional content of food served to the children). Even now, nothing is prepared the day before. Dishes such as pizza, turkey curry and scotch eggs are all made from scratch with no added salt. At the same time, when home-made dishes are provided, there is always an alternative 'processed' option for children who do not like such food.

Carmarthenshire attributes the success of its school meals service to its use of fresh ingredients and in-school preparation. Over the years the service has also managed to retain both equipment and cooking skills among its staff. So while labour costs are higher than elsewhere, caterers serve healthy meals that secure well above average rates of uptake across the county.

Real food does not pay

Sadly, under a Best Value review conducted by the Audit Commission in 2001, Carmarthenshire County Council achieved a two-star rating on the standard of service (range 0–3) and was characterised as being a 'high quality high cost' operation. A number of recommendations were made that require steps to move the school meals service away from fresh home-made food. Under government rules for such reviews the council must pursue these recommendations.

While the service was praised highly for its range of quality food and for excellent front line staff, the review found productivity levels low in primary school kitchens compared to other authorities. To raise this productivity the review concluded the caterers must cut back on fresh food preparation done in school kitchens by serving more ready-prepared (processed) food. Another key operational conclusion was that the service must drive down food costs. The report actually states that 'if productivity cannot be improved and if competitiveness cannot be demonstrated then the council is committed to engaging the private sector or other partners in the delivery of the service'.

Responding to these findings the service has had to commit itself to a productivity study that will consider buying in 'pre-prepared' vegetables from an external fruit and vegetable supplier to save time 'wasted' on current preparation methods.

Adding insult to injury, the Best Value review also concluded that the service must try to cut staff costs – higher than any other authority because staff enjoy 'national conditions' of pay and service (in excess of those in the private sector). Since other councils against which Carmarthenshire was being benchmarked have driven below these conditions, this council must now follow.

This story shows that the provision of school food across the UK will remain atrocious until performance indicators employed to measure Best Value in this provision are reformed. They need to reflect the delivery of everything from basic nutrition and long term health to the chance for young people to eat together in a civilising setting that is unpressured and unhurried.

The Audit Commission must develop new detailed measurement criteria for assessing Best Value in school meal procurement contracts that reflect these multiple benefits arising from the provision of good school food.

6 A legacy for life

Nutritionally depleted and chemically polluted diets cost lives. Unhealthy eating also costs the exchequer, and society, a massive and escalating amount of money. Yet we require children to attend school for at least 11 years and do the minimum to limit junk food laden lunches. This is a dim, irresponsible, short-sighted strategy. The provision of wholesome, healthy, tasty school meals containing as little, fat, sugar or salt, as few additives or pesticides as possible, adequate vitamins and sufficient key nutrients such as iron, zinc or essential fatty acids is a lifetime health investment that we owe our children

"Eating is an important part of everyone's life. Encouraging children and young people to eat healthily does not mean denying them food they enjoy. Healthy eating is about having a varied, balanced diet and enjoying lots of different foods."
Caroline Walker Trust, 2001[1]

Good nutrition for school children

Healthy eating patterns in childhood are fundamental for good health and longevity in adulthood. If young children are exposed to eating patterns that promote healthy eating and positive attitudes to good nutrition they are much more likely to eat well when they grow older. Healthy eating messages delivered in class however ring hollow and make little impact when the food presented for lunch contradicts and undermines all the messages put forward by their teachers or parents.

The links between food choices, nutrition and the health of children over the short and longer term are not contested. Growing children need plenty of energy and nutrients to ensure they develop well. Poor childhood nutrition can impair educational attainment and undermine future employability and productivity.[2]

It is nearly two decades since in April 1986 the preliminary report of a DHSS survey found school children eating more chips, crisps and other potato products than any other single food.[3] The same study observed that young people's diet at that time had become so unbalanced that they were dependant for a significant proportion of their total daily intake of nutrients on three foods – chips, cakes and biscuits, of which they ate three times the average household's consumption. The overall result was that consumption of other more nutritious foods such as fish, lean meat, vegetables and fruit was cut to a minimum.

More disturbingly, the Government's most recent large national survey of four to 18 year olds in Britain shows that the basic problem remains the same and is getting worse.[4]

This survey confirms that a significant proportion of school aged children are inadequately nourished in respect of iron, zinc, calcium, vitamins A and C and fibre (because many do not eat enough fruits and vegetables, unprocessed meat, oily fish and whole grain cereals). Instead they eat disproportionately unhealthy amounts of refined sugar, salt and saturated fat which contribute (respectively) to tooth decay, diabetes, high blood

pressure, stroke and coronary heart disease. What the survey does not record is the degree to which food additives and pesticide residues also impose an additional and ever growing complex range of substantially unknown risks on every child's basic biochemistry, most particularly the endocrine system.

Additional Government funded research has also shown that today's teenagers show an immediate preference for 'fast food', high in saturated fats and sugars. They also suffer great confusion over what constitutes healthy eating, lack familiarity with many fresh vegetables and don't know how to prepare them or a healthy meal. Yet even modest but sustained increases in the consumption of fruit and vegetables can lower blood pressure and reduce the risk of heart disease, a major killer.[5]

Patterns of malnutrition among UK children play out through a clearly established income-related gradient observed in the major causes of chronic illness and death. The most affluent live on average eight years longer than those living in the least privileged circumstances.[6] The Government's own surveys of food expenditure and consumption show that intakes of key vitamins and minerals are persistently lower among those in lowest income groups, leading to impacts in all areas of health.[7]

Stunting and underweight are the two classic signs of a grossly impoverished diet, short on essential nutrients and adequate energy. Children from lower income families are still likely to be significantly shorter than those from higher income families. Yet the occurrence of underweight children in the UK no longer correlates with the occurrences of stunted growth. This discrepancy suggests that many children get sufficient energy to maintain body weight, but not enough nutrients for adequate timely growth – the classic signal of an over-processed high-fat, high-sugar 'junk food' diet lacking in the key micronutrients required to protect long term health and prevent degenerative disease. Poor school meals only exacerbate this inequality and damage.

"Many research publications have shown that organically produced foods have higher amounts of beneficial minerals, essential amino acids, vitamins and lower potential risks from food pathogens and mycotoxins."
Professor Carlo Leifert, Director of the Tesco Centre for Organic Agriculture.[8]

Organic food and human nutrition

Within the context of delivering sustainable development across all UK local authorities, the Government has acknowledged that organic farming offers a host of beneficial dividends. Organic food contains few if any pesticide residues. Organic farming is better for wildlife, causes lower pollution from sprays, produces less carbon dioxide, generates fewer dangerous wastes, operates to high animal welfare standards and increases jobs in the countryside.[9]

A comprehensive and rigorous review of existing research on organic food and farming published by the Soil Association in 2001[10] found that vitamin C – an important nutrient in its own right that is also critical to absorption of iron from food sources – was on average higher in organically grown crops. Mineral content was also higher on average, although more research is required to confirm this finding.

Additionally, organic crops were also found to contain an increased range and volume of naturally occurring secondary plant metabolites or phyto-nutrients. These are found in plants because they help the organism withstand external challenges from pests and diseases and an increasing number of them are known to be beneficial to human immunity. Feeding trials have shown significant improvements in the growth, reproductive health and recovery from illness of animals fed organically produced feed. A small body of observational and clinical evidence supports the hypothesis that consumption of organically produced food is beneficial to human health.

The mushrooming uptake of organic food among the general public reflects widely held concerns about the impact of pesticide residues in children's food and a desire to know that food comes from a traceable source using an accredited production system employing high animal welfare and environmental standards.

Organic standards preclude most pesticides, many processing chemical, GMOs, hydrogenated fats, phosphoric acid, artificial colourings, preservatives and sweeteners as well as flavourings, hormones and routine use of antibiotics. Organic food offers a comprehensive guarantee for the absence of all these potentially harmful food adulteratives.

Organic food production is also far more energy efficient – it takes 12 calories on average of fossil fuel to produce one calorie of food grain in industrial agricuture, whereas organic methods will use five calories for the same food output. Some sources estimate that organic arable production can be 35 per cent more energy efficient and organic dairy production 74 per cent more efficient than non-organic production.[11]

"Food related deaths exceed many times deaths from car accidents and the rate is escalating. Diabetes, heart disease, obesity and cancer all point to a depressingly awful quality of life for increasing numbers of young people as they carry these (often) food-related diseases into adulthood."
Craig Sams, author *The Little Food Book*[12]

Diabesity – the escalating cost of 'cheap' food

Obesity is now an epidemic. In 1980 six per cent of men and eight per cent of women were obese (body mass index more than 30). By 1998 this had risen to 21 per cent of women and 17 per cent of men.[13] In 2001 The Office of National Statistics also reported that 21 per cent of males and 23 per cent of females were obese and that the numbers are still climbing.[14]

Obesity in children used to be rare but between 1984 and 1994 the prevalence of obesity in English primary school children increased 140 per cent. In his annual report 2002, the Department of Health's chief medical officer reported that between 1996–2001 the proportion of overweight children in England aged between six and 15 rose by seven per cent and the proportion of obese children by 3.5 per cent.[15] In summary, by 2001 some 8.5 per cent of six year olds and 15 per cent of 15 year olds were reported to obese and more recent data suggests that teenage girls in particular are getting markedly fatter.

Obesity is known to cause type two 'late onset' diabetes and the first cases of this life shortening disease have already been recorded amongst teenagers in the UK. On this phenomenon expert Philip James, chairman of The International Obesity Taskforce. does not mince his words. "It's almost expected that these children will be outlived by their parents and in many cases by their grandparents."[16] Some evidence already exists to back this argument within the UK population. In February this year, the Office of National Statistics noted for the first time an 'inexplicable drop in (female) life expectancy in 10 areas of Britain'.[17]

Recent research has shown that heart disease is significantly more common among obese people and that by the age of nine years, obese children have higher blood pressure and plasma cholesterol concentrations than non-obese children, both risk factors for heart disease in adulthood.[18]

Speaking last year to European health ministers James also observed that "Officials are pretty terrified around the whole of Europe about how to confront some of these huge vested interests… The fast food and soft drink industries have enormous vested interests which we need to confront. If we don't, then the epidemic of childhood obesity is going to rip through Europe so fast – with Britain being in the worst category – that we will have clinics

Eat better, live longer

Diet is the single greatest preventable cause of ill health. In 2002 the World Health Organisation (WHO) reported that an estimate 60 per ent of world deaths are "clearly related to changes in dietary patterns and increased consumption of processed fatty, salty and sugar foods."[19]

In April 2003 The Food and Agricultural Organisation (FAO) and WHO's joint independent expert report on diet and chronic disease[20] confirmed a similar figure (59 per cent of 56.5 million total reported deaths in the world, 46 per cent of overall disease burden) and set out principles for developing a global health strategy to tackle the growing burden of chronic non-communicable disease, much of it linked closely to diet. Among other things this report recommends:

- Limiting fat to between 15 and 30 per cent of total daily energy intake and saturated fat to less than 10 per cent
- Ensuring that carbohydrate provides between 55 and 75 per cent of daily energy intake with up to 10 per cent of energy from added sugars
- Restricting salt to less than 5g per day
- Fruit and vegetable intake to be at least 400g per person per day
- Protein to be 10 to 15 per cent of daily energy intakes
- That one hour of moderate intensity physical activity is needed to maintain a healthy body weight.

Much of the food currently served routinely in primary school dining rooms would probably not be permissible were these targets to be adopted and applied rigorously across all school meal provision.

of diabetic children of 13. The evidence is clear that they will have major problems of blindness by the time they get into their thirties. Kidney units should be regearing because they are going to need huge numbers of kidney transplants and dialysis."[21]

A year later, in September 2003, James and his colleages at the International Obesity Task Force repeated a stark warning that "Europe is at the crossroads on nutritional health. Obesity continues to escalate rapidly, a pandemic with major economic as well as health consequences that are increasing the burden of chronic non-communicable diseases throughout Europe."[22]

The National Audit Office (NAO) estimates that if the average rates increase in obesity observed between 1980 and 1998 were to continue, then almost half of all adults in the UK will be obese by 2020. The estimated financial burden set to arise from such a burden was calculated at around £0.5 billion per year to the NHS and an additional £2 billion a year to the wider economy.[23]

A study by David Winter of Bristol University completed in 2002 also estimated that a poor diet among many in UK society could already be costing the NHS up to £2.43 billion per year.[24] Forecasts for the future also suggest that within 15 to 20 years the UK Government could be spending as much as today's entire health budget again on treating diabetes alone.[24] Another recent estimate from Mike Rayner of Oxford University[25] also suggests that diet related disease (obesity, cancer, heart disease and diabetes) in the UK already costs the NHS an estimated £4 billion per annum (twice as much as road and rail accidents)

Some leading nutritionists have observed that the primary opportunities available for the intervention on this agenda lie with children aged between the ages of seven and 12 – the optimal period for preventing childhood overweight progressing into adult obesity.[26] This argument strongly underscores the case for curbing excess fat and sugar content in primary school food.

This is not to suggest that overweight or obese children in this age group should be placed on any form of restrictive diet. Rather that a priority must be placed upon ensuring they eat nutrient dense (as opposed to calorie rich) foods that help deliver a very modest restriction in energy intake over an extended period.[27] Such an approach is best achieved through careful and persistent substitution of fruit for sweets and water or low energy drinks for sugary ones while substantially raising physical activity levels (and self esteem). Such a strategy relies on the co-operation and full participation of parents, teachers and school meal organisers to deliver a consistent message within an environment that presents optimal food choices for all and penalises none – especially overweight children.

'Diabesity' as it is now called in America is not a cosmetic issue affecting a minority of today's school children. It is the most important escalating life long nutritional disease confronting the majority of them. Investing in better school meals to help prevent children becoming overweight will generate a huge lifetime economic and 'well-being' benefit both to the individual and to the nation as a whole.

Any suggestion by the exchequer or the voting public that we simply can't afford to spend more to improve nutrition or food education for primary school children is shortsighted.

Salt guidance – acting to limit heart disease

In May 2003 the FSA issued its first set of formal official limits for salt intake.[28] This came packaged with a public health warning to all carers to be far more vigilant about the amount of salt being given to the young – especially that hidden in processed foods (where it is estimated some 75 per cent of salt consumed by the age group comes from).

Parents of four to six year olds were targeted most strongly by this announcement because a year ago the Agency took a much more lenient

view when it issued provisional targets of five grammes per day for all children. This advice has now been revised to a substantially lower level of three grammes per day for the younger children because they weigh less and consume much more food per unit body mass in relative terms than adults.

Soon after this FSA chairman Sir John Krebs and the then minister for public health Hazel Blears wrote to public sector caterers – including local authorities and LACORS, the co-ordinating body for trading standards officers – asking them to ensure they follow these recommendations.

Salt is used partly to improve taste in processed foods, but also as a preservative and to improve texture in processed food. The need to follow through the FSA advice gives local authority catering contract monitoring officers and trading standards officers a valuable opportunity to help push school menu planners towards using less heavily processed food and towards more main menu items based upon fresh, whole ingredients. The revised salt guidance should make processed shaped, coated and crumbed meat or vegetable protein items a prime target for substantial quality improvement if not plain removal from school menus.

Facing up to critical deficiencies

- *Iron*

  Data from the *National Diet & Nutrition Survey*[4] reported that 14 per cent of boys aged four to six years, 39 per cent of boys aged seven to 10 years and half of boys aged 11 to 18 years had iron intakes less than the Department of Health's reference nutrient intake (RNI) although less than three per cent had intakes less than the lower reference nutrient intake (LRNI) – a figure below which it is expected that very few people achieve their needs. Among girls, 28 per cent of those aged four to six, 59 per cent of those aged seven to 10 and all girls aged 11 to 18 had intakes of iron less than the RNI, less than three per cent of the younger girls had intakes below the LRNI but about 45 per cent of girls aged 11 to 18 had very low intakes.[4] It is likely therefore that a proportion of children, particularly teenage girls, are not eating sufficient iron to meet their needs.

  Iron deficiency will cause anaemia, where a person's blood transports less oxygen than the body needs, so limiting their ability to be physically active. Beyond these more immediate effects, the Government has acknowledged more than a decade ago that iron deficiency in children affects intellectual performance and behaviour in the longer term.[29] More recently the relationship between iron deficiency and brain function has become more established. A relationship between iron deficiency and behaviour (such as attention, memory and learning) has for instance been demonstrated in infants and small children by several researchers. Moreover, scientific work on rats has shown that lower iron content of the brain in a young and iron deficient animal cannot be made up by giving more iron later on, suggesting that deficiency in the early years may leave long term damage.[30] There are strong scientific grounds for much more active and effective intervention (good dietary education and careful food presentation) to combat iron deficiency in young children and on into adolescence and early adulthood.

- *Zinc*

  Many children were also found in the Government's most recent dietary survey of school aged children to be getting insufficient zinc.[4] Very low intakes (below the LRNI) were reported for one in eight boys and one in four girls aged four to six years, one in 20 boys and one in 10 girls aged seven to 10 years, and one in seven boys and one in three girls aged 11 to 14 years. Zinc is an important essential trace element – fundamental to most if not all the major enzyme systems in the body not least those involved in protein digestion, carbohydrate metabolism and oxygen transport. Lower intake of zinc (along with Vitamin A and some B vitamins) have also been implicated in the aetiology of some cancers. Zinc also plays a

Cherish the children, curb the junk

Attitudes to obesity remain predominantly censorious, regarding overweight as something that people (children included) develop because they lack the self control to stop themselves eating too much and doing too little. This attitude lies at the heart of the Government's own latest strategy to challenge fat people to bring their own weight under control or forfeit medical treatment.

It is however well established that food and addiction are closely linked. Furthermore, the latest scientific evidence about the biological effects of fast food suggests that eating oneself into obesity is probably linked to permanent changes in brain chemistry.[31]

In particular, various threads of biological research around this topic suggest that 'fast' food meals high in fat and or sugar can trigger physiological changes in the brain that disable the hormonal signals that satiate the appetite and tell the body to stop eating. Other research in this field suggests that if the body eats more fat its appetite control systems will reconfigure to want more. Yet more work suggests that rats fed large amounts of sugar then show withdrawal patterns once the dietary sugar is cut (physical symptoms and neuro-chemical changes) similar to those seen in heroin addicts when they come off that drug.

It is not clear yet whether these disabling changes affect children disproportionately, but basic biochemical reasoning would suggest they might prove more damaging to the developing child.

With that in mind, the scientific evidence suggests it would be prudent to ensure that fast food is no longer served routinely in the dining hall to primary school children.

major part in gene expression and is essential for a strong immune defence systems. Lower levels of zinc have been shown to be associated with gut permeability, an observation made partly from numerous studies that have found lower zinc levels in hyperactive children or those suffering from attention deficit disorders.[32]

- *Essential fatty acids*
  Mounting evidence also suggests that deficiency or imbalance in certain highly unsaturated fatty acids (HUFA) of the omega-3 and omega-6 series may contribute to both the predisposition and the developmental expression of dyslexia, dyspraxia, attention-deficit/hyperactivity disorder (ADHD) and autistic spectrum disorders.

  This range of developmental conditions now affects up to 20 per cent of the school age children and accounts for the vast majority of those with special educational needs. While a genetic component to these conditions is indisputable, only environmental factors could possibly explain the apparent increases over recent years in the incidence and severity of some of these conditions (notably ADHD and autistic spectrum disorders). Increasing exposure to environmental toxins might prove to be one important factor, but nutritional changes could prove equally if not more important. Yet while all of these conditions are defined and treated differently in the education and health care system (to reflect the differing and specific impairments associated with each of them), the possible role of nutrition was until very recently rarely if ever made part of standard evaluation or management for any of these disorders.[33]

Vitamin deficiency and behaviour

Links between diet and child behaviour are nothing new and remain controversial, due partly to the very difficult nature of researching these relationships. As long ago as 1942 the civil servant that decided to give wartime children cod liver oil and orange juice speculated that poor diets could lead to antisocial behaviour.[34]

In the late 1980s two pieces of research raised new questions about diet and child health in respect of both educational attainment and antisocial behaviour. One study by a science master in a North Wales school and an academic from University College Swansea tested the impact of vitamin supplements on verbal and non-verbal reasoning among children who had a diet found (before the study) by analysis to be deficient in an average of 10 vitamins and minerals.[34] This study claimed a significant relationship (the equivalent of more than one GCE grade) between the non-verbal attainment among children given vitamins and those given a placebo. Around the same time an American researcher unconnected with the Welsh study experimented on a group of inmates at a top security young offenders institution.[34] The authorities were staggered to find that behaviour improved significantly among those given vitamins (27 per cent greater reduction in repeat offending compared to those not given supplements).

While these researches led teaching unions and nutritionists to call for a reinstatement of school meal standards, they were not enough to prompt significant policy change.

In 2002, new data emerged on this topic from a study of UK young offenders held in custody who were given vitamins, mineral and essential fatty acid supplements. In this controlled placebo trial, researchers recorded a 25 per cent fall in general offending behaviour and a 40 per cent fall in serious offending and violent conduct among those given the supplements.[34]

The dietary analyses of the participants' food diaries in this latest prison study brought up results that appear to echo very closely some of those found in recent location monitoring done by the Consumers' Association to assess the efficacy of the new school meal standards (see Chapter 4, page 41).

While diets provided to prisoners are close to if not better than current UK adult dietary recommendations, several prisoners were observed to lack the

most basic knowledge required to choose a healthy diet and some had not even heard of vitamins. Moreover, testing showed that "poor food choices by the prisoners typically resulted in lower nutrient intakes, most notably of minerals."[34]

Despite good availability in food presented, a high percentage of participants in the study consumed on average less than the UK reference nutrient intakes (RNI) of selenium (97 per cent), magnesium (74 per cent), potassium (74 per cent), iodine (73 per cent) and zinc (66 per cent). While the researchers admit that intakes below the RNI are not necessarily evidence of inadequate intake, they rightly emphasise that "most micronutrients were significantly raised in the group given supplements suggesting the intervention could be welcomed on health grounds."

Experience in an American high school suggests supplementation is not required to radically improve behaviour and concentration among pupils. At Appleton Central High School in Wisconsin soda-filled vending machines were replaced five years ago with new ones offering only juice, water and energy drinks. Natural Ovens and Bakery, a local company, also took over the cafeteria and started offering fresh fruit and vegetables, whole grain breads and entrees free of additives and chemicals instead of the routine pizza and fries. Long standard-issue cafeteria tables were replaced with round tables, creating a more relaxed feel in the lunch room while the 'lunch hour' was timed to fall at 1:00pm and was extended from just 20 minutes to an hour.[35]

By far the biggest change observed at Appleton however was that seen in the discipline statistics. Offences plummeted dramatically such that five years after it started the new school food programme, the school reported it had had zero weapons on campus, zero expulsions from the school, zero premature deaths or suicides, and zero drugs or alcohol on campus. Teachers also say their jobs improve because better food delivered better behaviour, concentration and attainment in the classroom.

Amid so much conflicting evidence, clearly, much more carefully conducted research is urgently required around micronutrient and vitamin requirements in primary school children, the impact of imbalances on their educational attainment and the implications of such problems for school meal nutrition.

In the meantime, the Soil Association and Food for Life believe that every available opportunity must be used to deliver the best and most comprehensive, quantified nutrition available through school meals using high quality unprocessed, fresh local and organic food ingredients.

A precautionary approach to school food

Last year results came to light from a Ministry for Agriculture, Fisheries and Food (MAFF) funded study carried out in 1999 by the David Hide Asthma and Allergy Research Centre at St Mary's Hospital on the Isle of Wight that suggested a link between certain food additives (sunset yellow and tartrazine colourings and benzoate preservatives) and changes in children's mood and behaviour.[36]

Authors of this work concluded that "significant changes in children's hyperactive behaviour could be produced by [removing] colouring and food additives." This research has however remained unpublished after queries were raised about its methodology at peer review. One major criticism of this study has been that it overlooked the nutritional status of the children and that as a result it was unclear whether the additives had an effect only in poorly fed children or were simply more marked within this group.

The release of what's now commonly called the 'Isle of Wight study report' into the public domain did however generate massive public controversy. In several places it led to unilateral action in schools to remove 'azo' food colourings and certain preservatives from school menus. For instance, one

Additives

Only 32 of the 290 food additives approved for use across the EU are permitted in organic food. "The controversial additives aspartame, tartrazine and hydrogenated fats are banned in organic food." Therefore a wide range and large quantity of potentially allergenic or harmful additives are avoided on a diet high in organically grown foods.[37]

in Worcestershire claimed that after just two weeks on a diet omitting some 27 additives parents found children to be better behaved and sleeping better while teachers claimed those known to have trouble concentrating became calmer and more able to apply themselves.

Responding to public pressure generated by coverage of this MAFF research report the FSA convened an expert working group to review the Isle of Wight results and to discuss methodology for future research into food additives and behaviour in children. It met only twice. Moreover, while disquiet on this agenda continues to fester, the FSA has failed to commission further work on a topic it dismisses as 'one of significant scientific uncertainty'.

More carefully designed research into the relationship between food additives used widely in children's food or drink and behavioral changes is essential to eradicate confusion and to clarify which type of intervention would be cost effective in this area. This work would have particular significance to any debate about school food not least because a great deal of what is currently served to most primary school children contains multiple additives because it is highly processed. Waiting for proof on this issue should not however be presented as a reason to prevaricate when so much of this processed food needs replacing anyway for much more basic nutritional and economic reasons with fresh, local and organic ingredients of substantially better quality.

Meanwhile it is also perfectly possible to give priority to eliminating a list of additives already prohibited and or restricted under specifications set down by some local authorities in their local school meals contract(s). One example of such a list is provided below from the London Borough of Islington's contract with Scolarest (see Chapter 5, page 46).

Some of these additives are already so clearly implicated in causing hyperactivity that some food manufacturers have started to move away from using them – for example, tartrazine and sunset yellow. Many others however continue to be used in all manner of children's food and drink, for example the preservative sodium benzoate was recently found by the FSA to be present in samples for around one third of dilutable 'squash' type drinks sold for use with younger children.

The Soil Association challenges all school caterers to adopt a list of banned additives and preservatives very similar to this under a voluntary code of conduct for raising the quality of school food (see Recommendations, page 99).

"There is ample evidence in the scientific literature to confirm that tests of human fat for pesticide residues show human bodies to be so heavily polluted that – we were cannibals – our own meat would most certainly be unfit for human consumption."
Dr Paula Ballie-Hamilton[38]

Chemicals, cancer or clean?

It has been estimated that around 25–33 per cent of the burden of disease in industrialised countries can be attributed to environmental factors, with the bulk of this affecting children and vulnerable groups. Cleaning up food served to children should be central to any strategy for mitigating the adverse effect of environmental pollution on child health.

After smoking, diet is the largest contributor to cancer and contributes significantly to certain types of cancer. Maintaining a healthy weight will reduce the risk for cancers of the oesophagus, colorectum, breast, endometrium and kidney. Fat or thin however, and poorly nourished children are more likely to develop cancer if their diet is poor in antioxidants like vitamins A, C and E. Ensuring an adequate intake of fruit and vegetables reduces the risk for oral cavity, oesophagus, stomach and colorectal cancer[39] despite the fact that 40 per cent of fruits and vegetables currently eaten inthe UK contain pesticide residues.

There are many studies examining the effects of pesticide residues on food. Most conclude that young children are especially vulnerable to these toxins. Young children eat between two to three times the amount of fruits and vegetables per kg of body weight compared to adults while their blood, kidneys and liver are not developed enough to excrete complex toxins such as pesticides effectively.[40] For children, a healthy diet made up of ingredients produced in intensive farming systems has the potential to deliver a significant toxic dose.

Conceived by parents themselves exposed from conception to a range of environmental toxins – including many labelled only recently as endocrine disrupting chemicals – children born today probably start out more disadvantaged than their grandparents did in their ability to cope with rising levels of chronic exposure to toxic chemicals.[41, 42] Even if they don't, extended life expectancy means children growing up today look set (if they evade the hazards of obesity) to endure exposure for the longest time.

For all these reasons it is important to take specific precautionary action to mitigate risks by limiting childhood exposure to toxic chemicals in the diet.

"The best available method of reducing exposure to potentially harmful pesticides is to consume organically grown food, where their use is avoided."
Dr Vyvyan Howard MB ChB PhD FRCPath,
developmental toxico-pathology research group, University of Liverpool

Pesticide residues

Over 500 chemicals are routinely used in non-organic farming and residues in many crops are found regularly to exceed acceptable safety levels. By contrast, only seven are permitted in organic farming. Non-organically grown food is therefore much more likely to contain pesticide residues. Government tests for pesticide residues in a range of conventional foodstuffs also consistently highlight how close some foods come to exceeding or indeed breaking specified safety levels. Civil servants consistently claim this data represents no risk to infant or child health. In fact we do not know the real risks associated with consuming these residue cocktails.

Most pesticides are safety tested in their singular state for their acute toxicity. Very few have been assessed for their chronic or long-term impacts, never mind at residue levels and in the kinds of combinations now often found in foodstuffs or (via ingestion and accumulation) within the human body.

Some of the most recent scientific work in this area has however begun to examine interactions between commonly used (organophosphate) pesticides and components of other pesticide formulations. This has shown that exposure to pesticide formulations containing low concentrations of multiple pesticides can lead to 'synergistic neurotoxicity' – one compound enhancing the negative impact of another – by some form of as yet unidentified direct mechanism operating at a cellular level.[43]

The lack of research and resulting 'evidence' concerning the long term impacts arising from the chronic consumption of man made toxic chemicals via food residues is often cited as a reason not to phase many of them out. Yet we cannot establish a baseline against which to accurately measure long term harm, because our diets and environment are already too heavily contaminated. Even if we had such a baseline, a rigorous comparative assessment would take more than 300 years (to test all the chemicals and combinations used adequately) to establish 'proof' of harm or otherwise.[44, 45]

Concerns about 'synergistic neurotoxicity' have particular relevance for the Department of Health's national fruit scheme in schools for four to six year olds. Here, there is a reasonable theoretical risk that the extra healthy food these children now eat as a result of this scheme could take their overall

pesticide dosages beyond the Government's own recommended daily intakes. Were any scientists to corroborate this risk, then consumer anxiety would probably obliterate the important health messages this scheme seeks to impart through encouraging young children to develop a taste for more fruit and vegetables. The easiest way to ensure this simply cannot happen is to give school children fruit that is fresh, locally sourced and organic.

Evidence that such a strategy will benefit primary school children is already available. Last year research carried out by the University of Washington in Seattle found children eating organic fruits and vegetables had concentrations of organophosphate pesticide break down products (metabolites) six times lower than children eating non-organic produce. The scientists who conducted this work concluded that "consumption of organic produce represents a relatively simple means for parents to reduce their children's pesticide exposure."[46]

As for parents, so surely for school caterers.

A new warning – pesticides and obesity

The earliest growth promoters used in intensive animal production were organophosphates (OPs), a class of chemicals known at very low doses to increase fat deposits by restricting the conversion of fats held in reserve back into glucose. OPs also damage muscle fibres and reduce the desire to exercise which helps produce tender, fatty meat.

While OPs are banned now for use as growth promoters in cattle, they are still used widely in veterinary drugs and in other formulations as broad-spectrum 'insecticides' (OPs also disrupt the nervous system) applied widely to vegetable and fruit crops. This latter usage led to a food scare in 2000 when the Government found 65 per cent of carrots sampled contained residues of an OP called Chlorfevinvinphos.

In 2002 Dr Paula Ballie-Hamilton published a book presenting evidence gathered from across the published toxicological literature for a range of man made industrial, agrochemical and medicinal chemicals used variously for the purpose of weight gain or pest control in food production.[38] Citing this evidence Dr Hamilton argues that OPs (along with carbamates, thyroid drugs, steroids and antibiotics used as growth promoters) could all be implicated in the emerging epidemic of human obesity. Take for example bisthiocarbamate, a weight-gain drug used to prevent the dramatic weight loss that normally follows cancer treatment. Ballie-Hamilton points out that the exact same chemical is one of the commonest anti-fungal pesticides used in food production with low level residues present in many fresh fruits and vegetables.

Much more research is required to ascertain how far these chemical residues in the human diet may impact upon weight control mechanisms either in the womb or during childhood.

Meanwhile children in schools should be given as much organic food as possible to limit their intake of these and other chemical residues in their diet.

Antibiotics

Over 700 tonnes of anti-microbial (including antibiotic) drugs are used each year on UK farms in 80 different drugs of which about 60 are the same as, or very similar, to those used in human medicine. Veterinary usage can be important for animal welfare so antibiotics are permitted in both intensive and organic systems. However more than half of all veterinary antimicrobials are used in feed for healthy animals, to prevent illness or to make them grow faster. This routine usage is not permitted in organic farming because it can give rise to residues and accelerate the development antibiotic resistance.

Antimicrobial drug residues in food (including antibiotics) are suspected to cause allergies,[47] cancer,[48] paralysis and respiratory failure,[49] anaphylactic shock[50] and aplastic anaemia in either humans or animals.[51] Government advice maintains that these pose no risk to consumers.[51] However, in a previous report the Soil Association has argued that this may not always be the case.[52] Official reviews of the scientific evidence have called into

question the safety of several drugs which have been widely used for many years.[53]

In the UK a significant proportion of eggs, poultry and pork products and a smaller proportion of deer, fish, milk, cattle and sheep products are regularly found to contain residues, often above legal limits.[53, 54] Imported prawns, shrimp and chicken have also recently been found to contain the banned cancer-causing drugs nitrofurans[55] and imported honey has been found containing the antibiotics streptomycin and chloramphenicol, which are not permitted in honey production for food safety reasons.

There has also been insufficient research into the possible long term effects of antimicrobial drug residues on the balance of micro-organisms in the digestive system and the extent to which this may interfere with the immune system.[56]

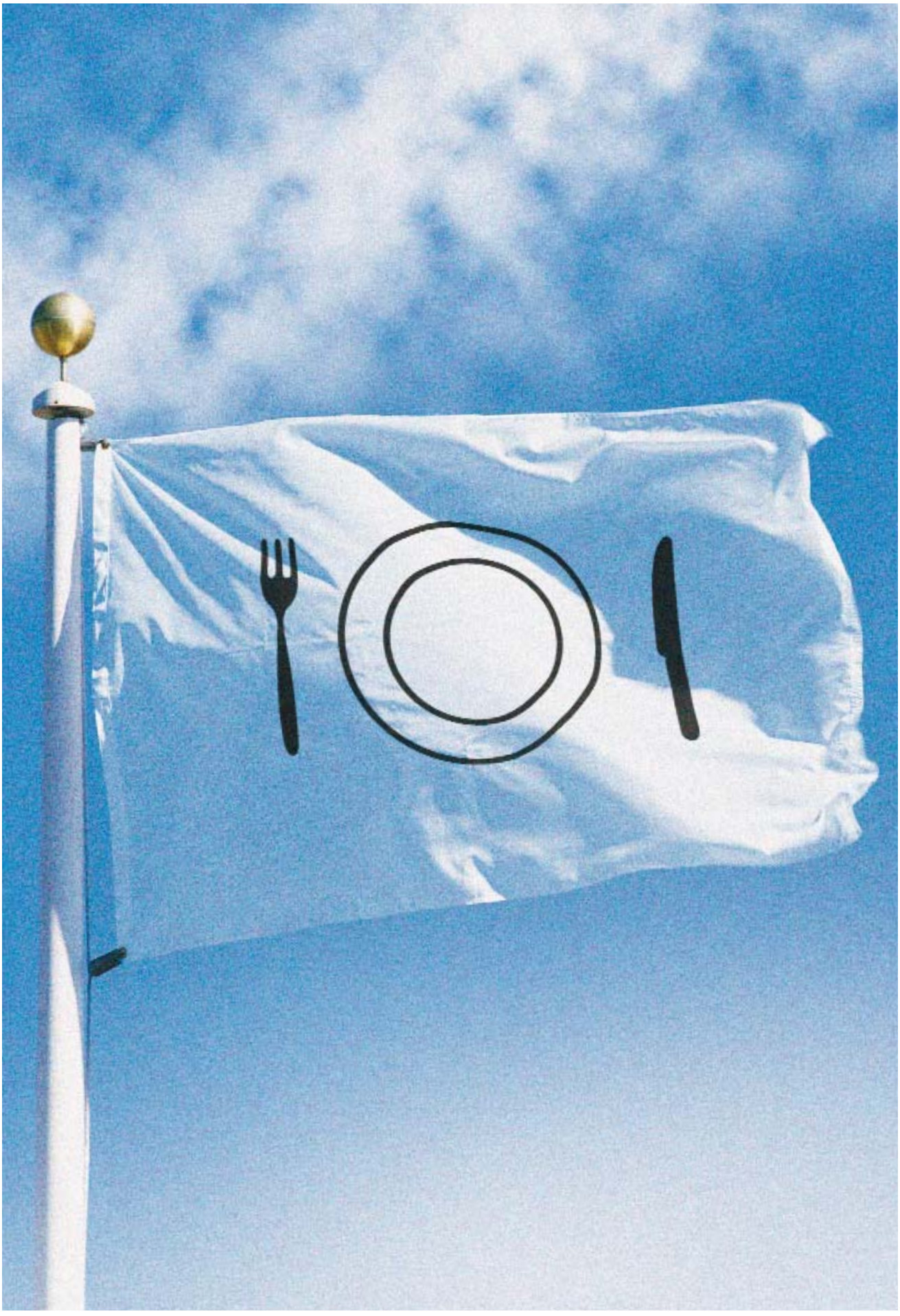
Where meat, milk or eggs are sold too quickly after drugs have been used in the production system, then residues can be present in food. To ensure organic food is entirely free from such residues organic farmers must observe a significantly increased 'withdrawal period', before animal products are sold after antibiotics are used.

Concern is growing that the high use of antibiotics in farming is causing bacteria that are normally combated by these drugs to become resistant.[57] The British Medical Association has stated that "The risk to human health from antibiotic resistance is one of the major health threats that could be faced in the 21st century." After 2006, growth promoting antibiotics, which farmers can use without a prescription, will be banned under EU law to help limit infections passing from animals to humans.

In response to such concerns the Government announced the development of 'a coherent strategy aimed at reducing veterinary antimicrobial use' in 1999.[58] However, despite a much-trumpeted voluntary withdrawal from use of antibiotic growth promoters, overall usage has gone up, rather than down,[59] and with more drugs being sold under veterinary prescription. As a result some infections are now becoming more difficult and occasionally impossible to treat. Areas of greatest concern are Salmonella, Campylobacter, E.coli and Enterococci, (which cause the superbug Vancomycin Resistant Enterococci). In June this year the FSA went so far as to warn chicken producers, shops and supermarkets to own up to consumers when they have reintroduced growth-promoting antibiotics in their supply chain.[60]

In the most significant recent development on this agenda, fast food giant McDonalds has signalled it intends to phase out the use of antibiotic growth promoters in its meat supply chain. The company has billed this change of attitude as a direct response to public opinion. It must be hoped this move will be enforced effectively and will impact upon the whole meat industry to end the indiscriminate use of antibiotics in this way.

In a similar vein, meat and meat products served in schools should now be sourced from producers who can demonstrate independent assurance that they do not routinely use these drugs in their production systems.



7 Food nations[1]

Several European countries care a lot more about food than we do. The French and the Italians especially are known to both respect the effort and accept the costs associated with higher quality food because they value it more, care about taste and appreciate its significance for health and culture. No surprise then that in these countries one can find some of the best examples of proactive public sector catering built upon a clear priority for local and organic food

"A nation's diet can be more revealing than its art or literature"
Eric Schlosser, author
Fast Food Nation[2]

The Italian recipe

Italy's traditional food culture is stronger than that found in many other European countries. It is however being eroded by TV advertising and a range of other familiar pressures such as changing farming practice, loss of contact between consumers and the land and the gradual disappearance of regional and national recipes. Like their British counterparts, Italian children are also pressured by relentless advertising to consume junk food, so like their UK contemporaries many of them also eat too few fruit and vegetables.

Historically much of the food served to Italian school children has been made from ingredients that simply could not go into the supermarkets. As in the UK today, the worst quality has been widely used to keep costs low. However, the value of a 'mediterranean diet' rich in seasonal and fresh produce, pulses, grains or fish and limited on meat content has been recognised by Italian nutritionists and some schools for more than two decades. In 1978 a school in the Commune of Tradate became the first to adopt a menu pattern based on the mediterranean model. In 1986 the Italian National Institute for Nutrition published *Guidelines for a Healthy Italian Diet* that led to the widespread adoption of this model in public sector catering.

The first Italian organic meals system started in Cesena, Emilia Romagna the same year, also in response to concerns about a diet overly dominated by meat and pasta. Between 1989 and 1992 two other significant experiments took place including the first organic university canteen in Padua (1989) and an organic hospital meals system in Udine (north-east Italy), though neither lasted more than a couple of years.

A desire to give children safer, more nutritious food, and to develop stronger food education, was fed throughout the 1990s by growing anxiety over the health impacts of BSE and pesticide residues. The 'Mediterranean' diet clearly also proved easily adaptable to move meals away from mass produced, highly processed and invisibly adulterated foods of unknown provenance towards the use of more wholefoods and a greater proportion

of certified organic ingredients. By the end of the 1990s it became clear that Government intervention would be essential to protect traditional agriculture. This awareness led eventually to a law being passed in 1999 that sought to promote the daily use of high quality and organically grown produce by public institutions in charge of school and hospital cafeterias.

Several Italian regions moved rapidly to implement this new legislation locally, often with extra funding for school meals (over and above money allocated centrally to subsidise an implementation programme for this new law). As a result, there are now over 300 examples of at least partly organic school meals' services in Italy, mainly in the north and the centre of the country, but now expanding to the south and the islands.[3]

Institutionally, it is usually the chief education officer who must ensure that school catering promotes healthy eating and educates school children about eating a balanced diet. They can and do set standards for how meals are prepared, how quickly they move from kitchen to table, how the tables are set, how the children are treated and how often parents and children should be surveyed for their comment on the quality of the food.

In any Italian school, parents can form a canteen committee to act as an independent hygiene and food quality watchdog. Between September 2001 and July 2002 in northern Italy especially many new parents committees were formed to review and approve (alongside full time dieticians) new more seasonal and local menus (often using a five week rotation for every dish), including those for ethnic tastes and special medical needs. Under these frameworks school councils, parent committees and organic suppliers assess jointly how the menus should be implemented. Teaching staff must also understand the ingredients and be able to explain the cooking methods. Schools must subsequently review the success of the menus, ingredients, cooking and suppliers in consultation with the children on a regular basis.

Involving the children in the preparation of food is almost always central to the reform process alongside a stronger emphasis upon the need to present food in a creative manner and to be eaten together. In some schools children will take turns to help with meal preparation. In others pupils have a separate kitchen in which they learn cooking skills. New creative teaching alliances created under the same reforms ensure teachers, researchers, parents, and some local health authorities have worked together to develop food education folders for families providing information booklets and educational materials on healthy eating, seasonal charts for fruit and vegetables and recipes and ideas for the home. The school grounds and rooms are also used for growing plants and the children visit farms.

Redirection of public investment

In those parts of Italy pursuing the new model successfully, parents, schools, the local commune, education authorities and the central Governments take a shared but total responsibility for meal provision and do not regard it as simply – let alone primarily – a money making venture. They tend instead to see school meals much more as a primary venue for the delivery of 'joined up' policy intervention on education, health, environmental protection and agriculture.

Clive Peckham, international co-ordinator of Alimenterra (a body working towards European standards for sustainable food production) and a director of EAFL believes the greatest impetus for change in Italy has been the desire to provide organic meals because they offer the safest, most nutritious food possible for children. One consequence of this is that a completely different definition is applied to what constitutes Best Value, especially in respect of school meal ingredients. Precise figures are hard to come by but information gathered by EAFL since 2001 indicates that, compared to UK schools, between two and three times more money is spent on (fresh unprocessed) ingredients and on the extra skilled kitchen labour required to prepare them.[4]

As with any of many other human stories told in this report, change in Italy has been driven by relatively few highly committed individuals inspired by the desire to give children better food. As Simon Brenman of Food for Life and Organic Networks in Bristol observed on a study trip to Italy earlier this year, "Implementation of a basically voluntary programme all comes down to regional adoption and delivery – a reality that recent changes in Scotland could be set to echo strongly. (see Chapter 3, page 38). A committed group of politicians championed this agenda and drove through legislation that might never have made it through on a national level under pressure from strong commercial vested interests keen to prevent or water down this type of change."[5]

In some areas progress has been accelerated by the provision of a direct incentive (in the form of a rebate) to any public sector catering purchaser using local and organic products (where the term 'local' will often mean a 'denominated' product from a protected geographical area, such as Parmesan cheese.) Where schools and local authority catering services cannot source local and organic food they cannot claim these rebates, a circumstance that helps create greater demand for such food and helps to revitalise local food chains.

This stark but simple policy intervention takes into account the fact that organic food production internalises many more of the social and environmental costs increasingly recognised in relation to non-organic food production. As a result, public money is spent in a cost-effective precautionary manner to deliver a multiple dividend in the form of better child nutrition and health, lower environmental impacts and more sustainable local employment. As in the UK, Italy's countryside has been subject to substantial pressures and decline as a result of globalisation in the food system. What the Italians have been more able and willing to confront is that public investment must oppose pressures that might otherwise destroy traditional food and farming systems, particularly in Italy's more marginal or remote areas.

As Simon Brenman suggests, "Local people in Italy are more than willing to pay more for high quality, locally sourced school food if they know their kids eat better and that their spending stays within the local economy to benefit their whole community."[5] Likewise, because organic farming is recognised as environmentally sustainable, the creation and stabilisation of a strong local market through public sector catering becomes both more attractive and more feasible. Equally, Clive Peckham of EAFL and Alimenterra believes the establishment of large-scale local and organic sourcing patterns in Italian public sector catering has been strongly aided by the development of co-operative local producer (marketing) capacity, linked into national (and international) co-operative supply networks (capable of supplying non-indigenous food stuffs and sufficient to overcome seasonality problems).

Lastly, underlying all this restructuring you always find committed people at every level prepared to review the status quo and do what it takes to deliver a different system driven by new priorities. As Brenman says, "In Italy such people range from mayors or local civil servants and elected officials, to school and hospital governors or their senior staff plus all the end users, the parents and patients. In practice these skilled and dedicated individuals often work for long periods for practically nothing to dismantle an old system and embed a better service run within the local economy."[5]

Italian organic meals at a glance

Several Italian cities now have comprehensive organic school meal systems in place. In the city of Ferrara, for example, 80 per cent of all food served to the city's 27 nursery schools is organic. In Cesena, the town's schools, kindergartens and council restaurants serve approximately 2,400 organic meals every day. Udine in north east Italy, was one of the first Italian cities to supply organic meals to all its schools. Approximately 400,000 organic meals

Organic by law

Finance Law, December 1999, Chapter 1, Measures to facilitate the development of employment and the economy, Section 4:

"To guarantee the promotion of organic agricultural production of 'quality' food products, public institutions that operate school and hospital canteens will provide in the daily diet the use of organic, typical and traditional products as well as those from denominated areas, taking into account the guidelines and other recommendations of the National Institute of Nutrition."

Scuola dell'Infanzia di 'Via d'Artegna, Udine, Italy

In 1997 Emanuela Tabiadon and Antonio Verrillo set up a voluntary parents' association with three other parents at a small nursery school (three to six years) in the northern Italian town of Udine. To tackle poor quality pre-prepared meals in a practical way they initiated a pilot 100 per cent organic school meal system in collaboration with the local commune. This led to more organic food being sourced by other schools in the area.

The association is run by a committee of 10 although almost all parents at the school are members. With help from the community dietician, the committee decided on the menus and found suppliers of the food. Stefania Ferlizza, who has one child at the school, spent last year learning a voluntary role where she is responsible for placing weekly orders on Tuesdays, managing payment of invoices, checking the orders on arrival and visiting the kitchen each day to keep an eye on food safety and quality control. She buys a wide range of fresh and dry ingredients alongside freshly baked bread products of which much is made with spelt flour and suitable for children with gluten intolerance.

The committee sells meal vouchers and controls the payment systems. On average, parents buy 22 tickets per month, at the cost of €3.12 per day. This includes a mid-morning snack and lunch. The entire amount of the voucher (40–45 per cent of the entire school meal service) goes towards the cost of ingredients while the Commune pays for the cooks, kitchen equipment, and running costs.

(continued on panel, opposite)

were served last year to children in that city, with over 70 per cent of all ingredients procured being organically certified. In keeping with Italy's food culture seasonality is often key to many supply contracts that feed this provision. For example, in a tender document for the supply of fruit and vegetable products to schools in the San Marcello area of Tuscany, theproduce requirements for the year are set out on a monthly basis. Oranges for instance are required eight months of the year but melons for only five months.

Friulia-Venezia-Giulia

This alpine region bordering Slovenia and Austria became the first region in Italy to officially implement state level legislation in line with the national public sector procurement law of 1999 (see panel previous page). As a result by 2002 there were at least 34 meals services in the region serving 400,000 meals a year with up to 70 per cent organic ingredients to 17 pre-nurseries (up to three year olds), three nursery schools (three to six year olds), 13 elementary (seven to 10 year olds) and four middle schools (11 to 14 year olds).

This pace of adoption was helped by two previous laws passed in 1990 and 1995 that had already created a favourable legal environment for the development of organic school meals in this region. Good co-operation between the organic and biodynamic farmer organisations and the regional committees for the development of agriculture had already spawned a series of courses and seminars in the late 1990s (involving teachers, parents, cooks, school children and other stakeholders) that covered organic production and the development of organic school meals. A local subsidy continues to help local organisations undertake this groundwork and co-ordination between different partners which has been shown repeatedly to help ensure a new system is successful.

Under local legislation a rebate system also applies in Friulia whereby schools can reclaim a third or more of the costs of the raw ingredients when over 60 per cent of the food they buy is organic or quality produce (traditional or that from denominated areas). This money cannot offset meal costs but must be used for educational purposes. Where parent committees organise school meals themselves local and organic ingredients more commonly approach 100 per cent.Where local authorities administer school meal deliveries, they often use quite a lot of organic ingredients (up to 70 per cent or even 80 per cent). Organic ingredients struggle to remain at even 30 per cent however in areas where the school meal provision is run by private sector caterers or a lack of relevant local production capacity means that higher prices must be paid for 'imported' produce.[4]

Take for example, the Commune of Moruzzo, a small municipality of 5,000 people centred on an Fruiulian hill town that has a highly prized local culinary tradition. As long ago as 1987 the town council allowed local parent catering committees to form non-profit voluntary associations that could manage the purchase and use of the organic ingredients in school canteens. Such committees have made a great success of developing a 100 per cent organic school meal provision. Moruzzo also became the first commune to introduce an organic Mediterranean diet and found that by introducing more variety in the form of less red meat, more fruit, more vegetables and more grains or pulses, the overall costs of the ingredients could be cut. Today there are around 150 meals provided to the nursery and infant schools made from 100 per cent local organic food. According to EAFL/Sustain[6] these meals cost approximately £1.10 for the nursery schools and about £1.40–£1.50 for the infant children – though the local authority pays for the kitchen equipment and the cooks' salaries. Factor in these overheads and the true cost of the meals is closer to £2.00 – a figure comparable to the £2.20 charged in the northern province of Udine where a similar system does include staff and kitchen overheads. In Morruzo, the budget is controlled partly by close local co-operation between parents and producers (some of them parents themselves).

Venice

In Venice rising concern about BSE and GM foods led parent committees to campaign for change to the school meals system to impose a more balanced, healthy diet for pupils based on quality ingredients of known provenance prepared to traditional recipes. So when nearly seven per cent of the local population signed a petition supporting such a change, the city council for Venice island resolved to switch school meals to a 'bio-mediterranean' diet using traditional recipes.

Working with the provincial and organic agricultural association, the Venice Provincial Government had already developed a substantial document offering complete information on how to tender for an organic school meals service (tendering documents, relevant laws, dietary requirements, menus, ingredients and an outline parent/pupil education programme). This was intended specifically to help local authority schools lacking adequate resources but wanting to start their own organic school meals projects.

It did not take Venice island long (less than three months) to start serving organic school meals. Supplies are bought using a 12 contract tendering system for organic (eight) and conventional (four) ingredients for menus built from local recipes on a five week rotation. Under this for instance El Tamiso – an organic producer's co-operative, based since the 1980s in the central fruit and vegetable wholesale market in Padua – now supplies fruit and vegetables three times a week to the five central school kitchens that serve 33 schools in Venice and a total of about 2,500 children. In a close working relationship, the co-op gets weekly menus well in advance so that members can plan the production and delivery of sufficient seasonal fruits and vegetables. The co-operative gets a lower price for its produce than it would from direct sales or wholesaling, but the producers enjoy a guaranteed market for a year at a time.

El Tamiso also works with the parents, school governors and local authorities to raise awareness of the connections between local food and the economy, environment, health and culture. Aware that anyone could win the contract away from them when it comes up for renewal under the competitive tendering system, the co-op does outreach work via the city markets, exhibitions, tastings, talks and demonstrations. This work is more than simple marketing. It's considered an important part of the whole education process alongside greater practical training and education for cooks and teachers.

Scandinavia[3]

As with much of the UK, the agrifood sector in Sweden is dominated by a small number of large supermarkets, competing on price and importing a high proportion of products. Agriculture has a rather narrow base, producing mainly livestock products. A diverse small food business sector exists but has trouble entering conventional food chains. Similarly, public food procurement has traditionally relied on large, often multinational food suppliers to provide products mainly from distant sources through large contracts.

In the Dalarna region of Sweden four municipalities have developed an innovative procurement system to support local and regional business whilst at the same time accruing economic and environmental benefits. Distribution is now purchased separately, enabling producers to deliver to distribution centres from which supplies to individual institutions are assembled and then delivered. In addition, the municipalities introduced the allowance of 'lots' in the procurement process. This enables producers to bid for any number of the 15 defined product segments. Moreover, it is agreed that more than one business can be awarded the contract for an individual lot opening scope for co-operative bidding.

(continued from panel opposite)

Each day a parent administers the voucher system at meal times and marks off a register.

Different parents take on committee responsibilities as their children move through the school. However Emanuela Tabiadon, who also works three days a week as a secondary school teacher, admits it is difficult to find committed individuals willing to take on the work and it has been very difficult to convince parents about the value of organic ingredients. "We have to constantly encourage new parents to get involved. The last six years have been very hard work but we believe it is worth it." As president for six years while all three of her children passed through the school, she has coordinated the committee, dealt with the administration, liaised with the commune and raised funds from local business to improve the dining environment. She has also taken a lead organising farm visits for the children and teachers, organic tastings for staff and parents, meetings with experts to discuss issues like BSE, organic, GM, child nutrition and healthy eating, with support from a development worker from AIAB, an Italian organic certification body.

Cinzia Codeluppi who has one child at the school and will have two next year, has recently begun helping with fundraising and administration. She and 10 other parents on a rotation basis, share the quality control job of checking produce when it arrives. She says "without Emanuela's voluntary effort, vision and leadership we would not have made the progress we have."

Ada Pinzano is a baker near Udine in northern Italy who uses a traditional oven fired by wood from untreated forest areas and assorted organic flours to produce a range of highly nutritious and tasty breads for local schools and her farm shop. A number of school groups also visit her each year to learn about bread making. She is a popular teacher because the children who come to her always take away what they make hot in their hands.

CIVAM Bio du Gard

Centres for Agricultural Initiatives and Development of Rural Areas (CIVAM) originated in France during the 1960s to support rural development and education. They are local non-profit organisations deeply rooted in rural communities that work alongside traditional agricultural institutions to support individual farming initiatives. They can identify with a specific area (for example CIVAM de Carlencas) or with a specific agricultural activity (for example CIVAM apiculture). Their uniqueness lies in their community approach based on the complementarity of rural activities (agriculture, tourism, employment) and in the diversity of their staff (producers, technicians, social and rural development workers for example).

Organic farmers marginalised by traditional institutions established the CIVAM Bio Du Gard in 1986 to provide a venue for sharing their experiences and exchanging information. It has become an organisation linking organic marketing, education and eco-tourism in the entire Le Gard area of Languedoc-Roussillon. Today it is a district federation with 85 members (both organic and in conversion) that runs some direct outlets, offers training and technical assistance, lobbies on a range of issues and disseminates information. It supports the local Manger Bio initiative that supplies organic food to local schools and public sector canteens.

One result of this new infrastructure is that a number of small producers now supply individual municipalities with potatoes. Through the third part distribution centres producers can work collaboratively to cover each other so that where one has a gap in supply another can fulfil the required volume with his excess. This new system has also led to more than double the previous number of local and regional businesses winning contracts.

It has been calculated that by the year 2000 the more efficient transport arrangements cut the total cost of food procurement by seven per cent compared to the situation before this system was established. Moreover, lorry journeys and deliveries were cut by 50 per cent to once a week, saving resources, pollution and time.

In the city of Malmo, Sweden, 60 per cent of all publicly procured food is now organic, supplying, among others, 85 schools with approximately 35,000 pupils. Götenborg also has an established green procurement strategy which obliges tenderers to complete an environmental declaration on both general and product specific issues. The city procures a significant amount of organic food and is working with other authorities in western Sweden towards a goal of five per cent of organic food in public procurement as a whole. Procurement officers have also noted that most of the organic supply contracts for the city have been won by Swedish firms, often located close to Götenborg.

Next door, Denmark has one of the most comprehensive organic sourcing policies in Europe whereby nearly two-thirds of all municipalities have some degree of organic procurement, including schools and hospitals as well as other public institutions. This progress is a direct result of Government policy, including funding for the conversion of public canteens.

'Eat Organic' in southern France

'Manger Bio' is a project based in the southern French region of Languedoc-Roussillon that started in 1993 when local organic producers decided to develop local markets and much closer contact with consumers. It began under the auspices of Centres for Agricultural Initiatives and Development of Rural Areas (CIVAM) Bio du Gard (see panel left) pilot scheme located in a leisure centre where a weekly meal option rapidly became 250 meals per day for six months in 1997.[7]

Two years later Manger Bio was supplying 10 primary and secondary schools, various leisure centres and a clutch of collective restaurants including the local council in Nîmes. By that stage it was serving an average total of 150,000 meals a year (using supplies from 20 local organic producers) at only 10–20 per cent above the cost of the non-organic food it replaced.

By then CIVAM Bio di Gard had also started working with dieticians on a health and nutrition programme to supply a hospital (6,000 meals a day). Studies of food behaviour in schools involving 'organic' and 'traditional' canteens subsequently also spawned regular training sessions for cooks and kitchen staff.

At schools within the scheme the price per meal was kept unchanged, partly through the introduction of alternative meals without meat or fish. This in turn enabled the CIVAM to demonstrate to its critics that a healthy diet could be maintained differently, for instance, by introducing pulses and cereals.

From what began as a scheme dependent on the delivery van and effort of one producer (the only one equipped to do a delivery run at that stage), Manger Bio has grown into a project involving more than 40 farmers, a butcher and a number of supporting institutions. Since 1998/99 its school meal provision has also been underpinned by an agreement with an organic wholesaler in Montpellier, Bio Cash, for the supply of pulses, pastas, some

dairy products and non-seasonal vegetables. An organic butcher and two organic bakers also provide the scheme with meat, bread and pastries. By 2001 approximately 300,000 organic meals a year were being served in 10 schools within Languedoc Rousillon and a further 400,000 annually in the Provence-Alpes-Côte-d'Azur region.[3]

The early funding came from the European Commission because it took four years to convince local authorities that the scheme generated and retained significant added value within the local economy. In 1999, the local town council decided to fund the building of a new kitchen. This helped Manger Bio solve a range of logistical problems arising from EU health and packing requirements along with a need for more storage space.

CIVAM's information and educational work has also flowered with the project. For example many problems arose from the necessity to wash rather than peel organic vegetables and to re-calibrate canteen equipment. Producers have had to raise quality, whilst cooks and kitchen staff have had to learn how to use organic ingredients in ways that preserve their flavours and nutritional qualities. Parents have also needed to be informed to overcome initial reactions of distrust and most had to be convinced about the necessity for varied, balanced meals.

To that end, the Manger Bio project also spawned RACINES, a separate programme where the original idea was to offer cooks, teachers and parents the opportunity to visit, and in some cases camp on, organic farms with their children. It is now an independent association and activities have expanded from three to four day practical farm holidays to farmers coming to work with children on city allotments and in school grounds.

A lesson for UK caterers

Looking at the recent history of local food development in the UK – the emergence of more than 230 farmers' markets in less than three years – there is every reason to be confident that producers will respond rapidly to the rising demand for local and organic food in schools.

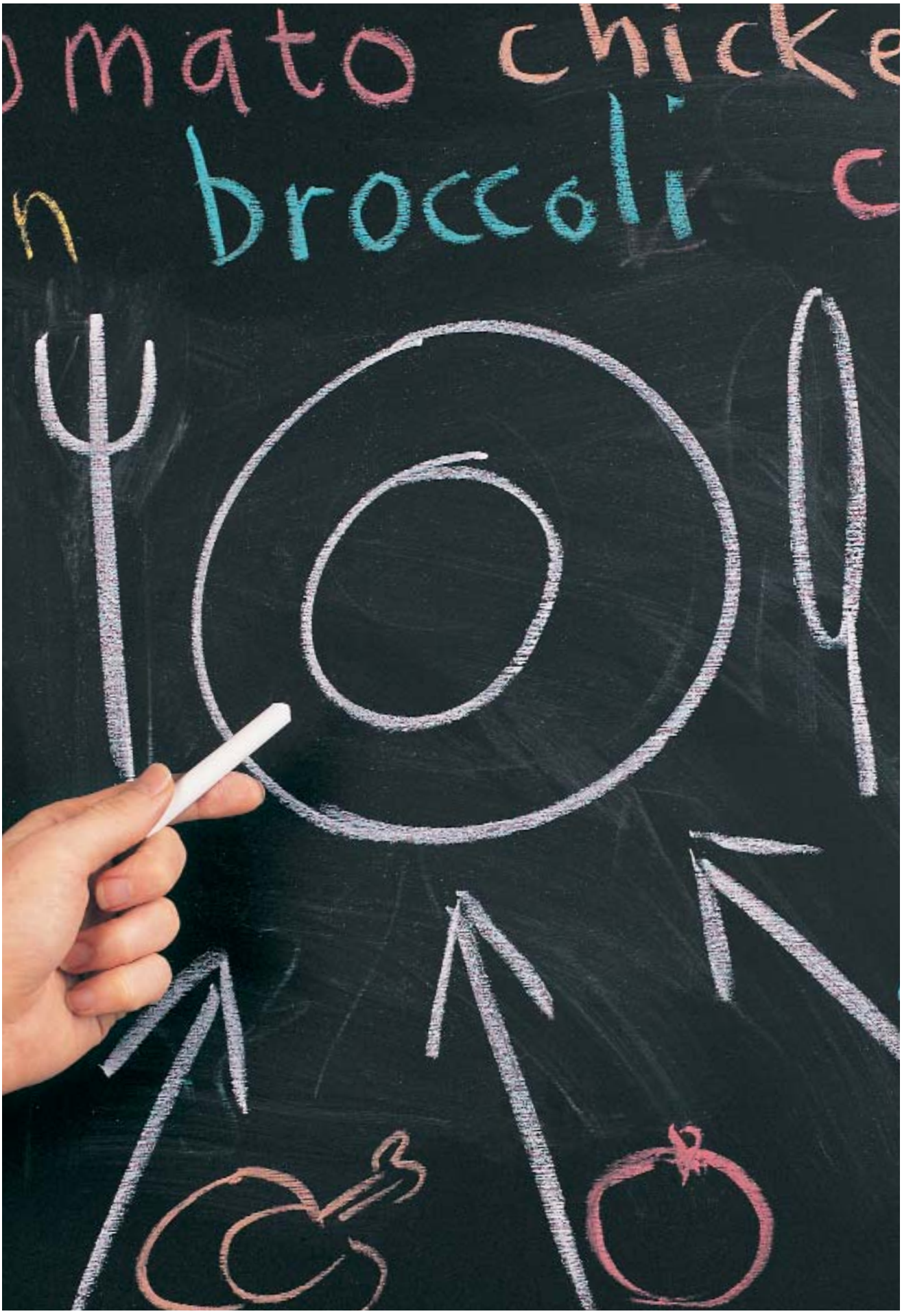
Over the past year or so, the non-organic farming community has begun developing its own regional producer groups – first among them in Wiltshire – that see schools as a primary target market for their produce. These groups do not at present encompass organic producers but they are set to replicate in at least six counties before the end of this year suggesting more locally produced, fresh and unprocessed non-organic food will soon become more readily available to school caterers. Meanwhile, an increasing number of UK farmers are also switching to organic production in response to growing demand.[8]

As the story of Denbighshire parents campaigning for better school meals and other examples of change recorded in the next two chapters show, there is a growing demand for local and organic food from within primary schools. In some cases this is driving schools to opt out and go it alone (especially where area-wide contractors prove unable or unwilling to change their menus). In other areas or where schools are either unwilling or unable to opt out of such contracts, heads, governors and parents are starting to knock on the door of their catering company to discuss ways to improve what is provided.

Sooner rather than later the more competitive catering organisations will realise that multinational centralised procurement of ready prepared, heavily processed and highly adulterated school food has had its day.

Rebuilding the school meals provision requires a revolution in the way we regard this service. As these stories from other parts of Europe illustrate, relevant policy intervention coupled with well directed and carefully managed funding and personal commitment from all involved could serve to make this revolution swift and prosperous for all concerned.

The long term health and social benefits to be derived from delivering that revolution are a gift beyond price for our children.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8 Pioneering schools

School meal procurement is now supposed to be all about providing Best Value. Yet when it comes to healthy eating most primary school children still receive lavish portions of fat, sugar, salt, food adulterates and menus dominated by over-processed food in the form of over-processed menu items and very little fresh food. In the face of this, an increasing number of schools are breaking away to pursue a more balanced, fresh and truly cost-effective approach. Others are challenging their contractors to improve what they supply

"As a school, if we are to genuinely care for the whole pupil then we must not only educate their intellect but also provide them with the right choices for becoming healthy citizens in its broadest context. This includes giving them awareness of eating well and how this can be achieved."
David Maddison, head,
St Peter's Primary School[1]

The best way to describe the opportunities that unfold from the choice to opt out of local authority catering arrangements by taking direct control of the school meals budget is to tell the story of three schools at various stages of this process. St Peter's Primary School in Nottinghamshire opted out as soon as it became legal to do so in 2000 and has already won an award for its local and organic sourcing arrangements. In Bath, a large infant school got going at a similar time but with a more challenging social mix it has had to work on more fronts than simply what is served in the dining room while weathering considerable staffing problems. A third school, near Totnes in Devon, began revising its menus earlier this year and is rapidly building a local supply chain – in part with the help of local business.

With many long term LEA-wide catering contracts up for renewal over the next year or two, the initiative shown by these schools and the progress they make towards healthier menus and higher levels of uptake is of critical interest to heads, governors, parents, contract monitoring officers, community dieticians and trading standards officers alike.

St Peter's Primary School, East Bridgford, Nottinghamshire

Early in 2000 when primary schools were given the right to take control of their own meal budgets, catering manager Jeanette Orrey persuaded school head David Maddison that she and her colleague would serve better food and could be better paid if they were given the freedom to run their own show. Not only had the local county school meals service been dictating the menu for weeks in advance, the food they were expecting kitchen staff to dish up was arriving predominantly processed and pre-prepared, leaving the kitchen teams de-skilled and with their hours and wages cut.

Initially the menus didn't radically change, not until Mrs Orrey decided to make her own spaghetti bolognaise. "I wanted to put beef back on the menu for solid nutritional reasons but to do that I had to be able to look parents in the face and say I knew the quality and provenance of the meat we were using."

St Peter's Primary School

Children at St Peter's, pictured opposite, and below, where they save their broccoli till last, not because they loathe it but because they love it.

Jeanette Orrey began talking to local farmers in search of a local supplier. In the process she found a local farm shop and discovered the school had considerable buying power. She soon began to extend her local sourcing activities to milk and vegetables too. By doing this Jeanette also found she had the means available to begin revising the menus to serve fresher, tastier and healthier food, much of it in the form of traditional menus familiar to parents but unfamiliar to many children. "To take the kids along with me they did a lot of sample tasting and we did a lot of talking. They were enthusiastic and discerning young critics who were genuinely interested once we gave them a chance to get involved and offer comment" adds Jeanette.

When she knew what they would eat she went back to negotiate prices. "I soon found that we could get produce from local or organic growers at the same prices as stuff that was non-organic and from nowhere specific through the central wholesaler." More recently still, some of those which can't be sourced close to home now comes via Eostre, the East Anglian organic producers' and fair trade co-operative that works in partnership with the El Tamiso producer group in Italy (see Chapter 7, page 67). All the fresh meat now comes from a local farm shop that also uses a local abattoir some 20 minutes away. Jeanette says "We can practically name the animal on the menu for a given day." Processed meat rarely features, though sausages are now being made to a precise and careful specification from decent ingredients (see Chapter 1 page 11). "Roast topside is also a great favourite with the children," says Jeanette.

Nor has all this come at any price. St Peter's now spends between 60 and 70 pence per head per day on food ingredients – around double the national average – but keeps the daily meal price identical to other Nottinghamshire schools (£1.70). Jeanette says she can do this (and afford to give her staff more reliable hours at better pay rates) largely "because my purchasing decisions don't incur the cost of managers, administrators, their secretaries and the odd chief executive."

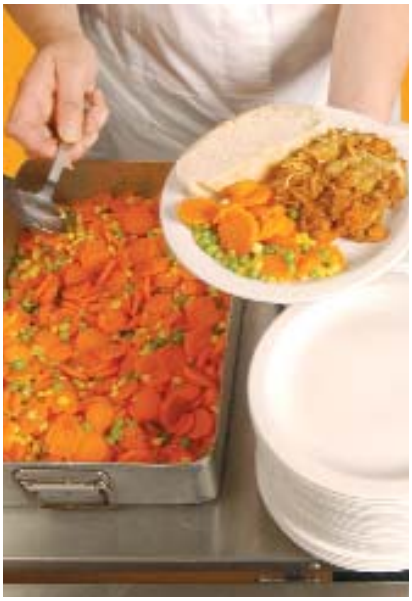
Jeanette acknowledges that work is more demanding for her in particular but also for the rest of her team. Ask any one of them about that however and they will all suggest that, like the food, the new arrangements are a lot more satisfying. "Making home made pizza bases and decent sauces is a whole lot more fun than 'regenerating' frozen rubbish through the ovens" they will say.

The children have also voted with their mouths. Where only 115 of them took school lunch when the kitchen first went stand alone, now 180 out of 220 pupils all eat school food regularly – a figure of nearly double the national average of 43 per cent.

This shift was partly encouraged by a careful and deliberate policy of enabling children to sit with their friends who stuck initially to packed lunches. It was also done by feeding the parents enough of the food and nutritional information so that they could appreciate that they could not compete by supplying sandwiches and snacks. It has been sustained by offering one old style 'junky' food meal every week, partly to keep the kids happy and – Jeanette also admits – to help keep the budget under control. In another spin-off the profitability permits the flexibility for children to opt in or out from one day to the next if they fancy a packed lunch for a change or know they simply won't like the main menu options that day.

David Maddison meanwhile chose to make sure the changes taking place in the dining hall were integrated into the citizenship curriculum. "A mobile bakery has visited the school and the local postmaster has begun working with older pupils to teach them how to grow organic vegetables. We are also looking at ways to recycle profits into a confidential subsidy available upon application for families who may have lower incomes than most but remain above the free school meals threshold. This is particularly relevant in families with several children all in education."

Profits have also been reinvested in various ways around the dining hall. Plastic flight trays were replaced last year with real white china and bright wipe-clean PVC table cloths. Another recent innovation was the purchase



of a special oven that now produces a steady supply of baked potatoes served daily with items from a very popular newly opened salad bar.

In her pursuit of continuous improvement Jeanette Orrey is looking to move progressively more of the ingredients used away from non-organic to organic status in order to reduce the chemical load in the children's diets. "While by no means everything will come in organic under the current budget, there is still scope to replace more of the basics that way." In support of this St Peters joined the Food for Life pilot project through which it was introduced to Eostre Organics a producer co-op in East Anglia that will help ensure she gets more organics all year round. Most recently, at the start of the autumn term 2003, the kitchen began buying organic dairy products from Waitrose at a competitive price that includes free delivery.

Meanwhile Jeanette Orrey has also begun helping other schools in the pilot with their revised menu planning. In doing this work she argues she is little more than an evangelist for plain, hearty common sense. "What we are doing at St Peter's should be the rule rather than the exception. It's what being a good school cook boils down to offering children decent fresh food so that they can learn what is good for them and what isn't.

"Why should this be so difficult? There simply is no reason why so much money should be wasted on profit margins by large bureaucracies when a little local vision and some hard work can deliver much better food and keep a great deal more money within the school and it's local community."

Significantly, Ofsted echoed these sentiments in its recent report for an inspection conducted on 20/21 May 2003. Commenting on the school's award winning food provision the Ofsted inspector suggests that the head and the catering team at St Peter's "now have what is possibly the most high profile and significant school kitchen in the country." Furthermore, giving a moving acknowledgement to the educational vision underpinning their whole approach, the Ofsted inspector also observes that the efforts of the head, the catering manager and the kitchen staff provide "an excellent and typical example for the pupils to follow of what can be achieved through hard work and encouragement."[2]

Southdown Community Nursery and Infant School, Bath

On the outskirts of the heritage city of Bath you can find an infant school with an intake far more diverse and less advantaged than blanket assumptions would expect to find in this predominantly middle class, prosperous city.

Southdown Infants is also the only primary school in Bath and North-East Somerset unitary authority that still cooks its own meals on the premises. Moreover, a substantial proportion of infant pupils (more than 60 per cent) choose to tuck into a freshly cooked meals all year – with higher numbers still in the autumn and winter term. By popular demand the nursery children will also be able to have a hot lunch when that expands to become an all day facility from this autumn.

Three years ago the school opted out of the local authority contract to go it alone because a lot of schools in the area were going to sandwiches only in order to free up the kitchen space for a classroom. Quite a lot now only have this service. "The children here are predominantly from an area where families face many challenges so we felt it was important to provide a proper hot meal at lunchtime," says the head Gill Culley.

By taking control of the meal provision themselves the school has found it gained a lot of flexibility and can be much more creative with the menus. "We have two roast lunches a week," admits Culley somewhat sheepishly, "but roast meat, potatoes and at least two other vegetables is by far and away the children's overwhelming favourite. These meals are also followed by a lighter dessert which is a substantial improvement over the pressed meat and heavy hot puddings that irritated me so much under the old regime."

These changes reflect how, by using local shops, the school has raised the ingredient spend to between 50 and 60 pence per child a day and held prices

Southdown Community Nursery and Infant School

Pictured opposite and below. Breakfast, snacks and lunch. Healthy, wholesome and tasty.

at £1.35 (though 35 per cent of children qualify for free school meals). The kitchen also serves mostly local and organic vegetables. It is looking into having a salad bar, while also looking to source more real meat direct from local and organic suppliers. It already serves a largely organic fresh fruit salad most days or a piece of fruit as an alternative to the cooked pudding.

Culley is confident that eating together provides an important social experience for many of the children in her care, not least because the kitchen makes a lot of effort to cater for special diets and vegetarians to ensure they are included in the meal times. The enthusiasm fed at lunch has also helped sustain the 'hungry hippo breakfast club', set up last year with funding won through an excellence award from Education Extra, the charity that supports out-of-school-hours learning. This attracts a regular clientele of 56 children who are charged only 30p per day. In line with the anecdotal observations made across many other schools about the value of breakfast clubs, Culley is adamant that initiative brings many children into school keen who might otherwise come to school late or not at all. She is also convinced that the club children settle much better on a full stomach because they don't arrive full of pop or sweets purchased on the way in.

In a similar vein, the school also runs a health food tuck shop that offers organic carrots, dried fruit and fresh seasonal fruit in bags for 10 pence per portion. "We always take £10 a day," says Culley "so we know that over 100 children come to that." Linked to this there is also a bag scheme for parents supplied through the local food co-op where for £2.50 a week they can pick up a bag of organic fruit or vegetables to use at home.

Next, as a highly profitable fundraiser, the nursery and under fives get milk for £3 per half term. "If we went through the school milk scheme," says Culley, "the kids would have to pay £6.50 per half term, and we would make no money. As it is, because we source it ourselves they pay much less and the school can still pocket a significant margin that we can use to meet other needs in the school." As Culley points out, this is one of the best things about running your own catering arrangements. The school can choose to run meals on a non-profit basis if it wants to, or where it makes money this isn't then 'lost' across a contractors global budget.

Setting up on their own meant Southdown had to accept staff changes. Of the two cooks the school took over from the local authority supplier, one departed rapidly for a new job (possibly out of sheer terror at what she was being asked to take on). The other proved unable to rise to the challenge of running what amounts to their own small business within the school and has had to be replaced.

The current cooks Julie Smith and Diane Davies are however highly motivated about the work they do for Southdown school: "We derive a lot of job satisfaction from a much wider range of skilled tasks. We know that we are serving really good food to the children and take real pleasure watching them eat it so enthusiastically."

Additionally, the cooks also provide a range of home-made sandwiches and salad to order for the staff who can also opt for a hot meal if they wish to. "No staff used to have dinners before," says Culley, "but most now eat school food which is excellent for them and for the school."

Sadly, there has as yet been little or no interest from the local health or education authorities in the achievements the school is delivering on healthy eating. "We are doing so much here to improve the children's overall health and well-being but at the moment that simply isn't being recognised," admits Culley. That, surely, has to change.

Blackawton Primary School, Devon

Blackawton Primary is a small rural school with 120 pupils of which only seven are eligible for free school meals. Many of the children come from non-organic farming families hit hard in recent years by rural decline. Others come from families involved directly in the organic food industry,

so there is considerable interest in food issues within the parent and governing body.

Blackawton decided to opt out last year as a result of local campaigning underaken by Devon Food Links around issues of local food. By the time it joined the Food for Life pilot in the summer term of 2003 the school was keen to explore and overcome the barriers to achieving a new quality benchmark for school meals and food education in primary schools. It is more than willing to make menu changes in order to deliver nutritional needs of children through restricting the use of processed foods and through using more local and organic ingredients. The school is keen to improve the viability of the school meals service and deliver better food education.

The background to these changes was a scenario that is familiar to many heads across the country, especially in small (predominantly though not exclusively) rural schools with low numbers of children qualifying for free school meals. In these school kitchens – where they survive at all – there are few if any profits to be made by contractors operating on the back of large procurement systems. All too often, catering contractors oblige such schools to switch to sandwiches only once lunch numbers fall to below 35 per cent of the intake, a change that routinely leads to the reassignment of kitchen into classroom space.

In September 2001, the average number of Blackawton pupils eating a school meal each day was only 20. The low numbers were found through investigation to be due to the poor quality of the meals on offer. A new kitchen manager was employed but after two weeks she expressed concern about the meals she was being asked to prepare and requested that she be given scope to revise the menus and raise the uptake of school dinners.

School governors and head teacher Jenny Kinder were already concerned about the size of portions and the meal quality. The children's behaviour was bad at meal times and parents were of the opinion that this was exacerbated by the diet. Anxious not to lose another kitchen manager (these posts are very hard to fill) the head, governors and parents agreed to give the kitchen manager an opportunity to provide an independently run cooked meal service. Numbers of children taking the school meal duly rose rapidly to an average of 65–70 and to as many as 90 on 'bag' day (Friday) when lunch is served in a bag and always includes fresh home cut chips. It has become a stated requirement of the school's action programme under Food for Life that numbers do not fall away; daily take-up must remain above 50 throughout the project.

Lorraine Wallace the kitchen manager now works for 23 hours each week and is responsible for designing the menu, sourcing the ingredients and keeping within the budget. She is also supported by both the school administrator (who deals with the business administration) and a kitchen assistant whose hours have risen substantially to accommodate the extra work required when preparing meals from a greater proportion of fresh, raw ingredients. Parents currently pay just £1.35 but the ingredients spend is around 50p. The school kitchen is also deliberately meant to be non-profit making, so any margin made is ploughed straight back into the development of the meal service.

When serving the meals, the kitchen duo spend time talking to the children and coaxing them into trying new things. This has made a big difference to the children's behaviour – meal times are calmer and more pleasant. The children can go back for seconds and are able to choose from a varied menu with plenty of fresh fruit and vegetables so they get a generally balanced diet. Roast lunch once a week might for instance include roast pork with apple sauce, roast potatoes, cabbage, carrots and cauliflower cheese. Pancakes with orange wedges often follow this, or they can eat fruit salad or a piece of fruit.

Local business relationships are key to the changes taking place within this school kitchen. A local organic grower, Riverford Organics, recently started supplying the school with fruit and vegetables while also agreeing

Healthy schools in Pembrokeshire

Pembrokeshire has been one of the most successful counties in the UK when it comes to healthy eating initiatives in schools. The Funky Food Group has overcome the problem of pupil involvement by putting them at the centre of a highly innovative team approach to school meals. The team consists of four pupils and a teacher from four primary schools, two area school meals managers, a school cook, a health promotion officer and a dietician, a collaborative exercise facilitated by Lynne Perry of the Pembrokeshire Local Health Group.

The schools involved have incorporated food and health into their curriculum and pupil reps discuss meal changes with their class mates and carry out pupil opinion surveys about school meals. Pupils were asked to design an alternative school lunch menu around the balance of good health as an alternative to the hot meal. Taster sessions were provided by the school meals service from the children's ideas and a four week menu was compiled.

To date this menu system has run in four schools since March 2002 and it has proved very successful, not least because school meals uptake has increased in all the schools involved. The cold lunch alternative is served in a brown paper bag – McDonald's style – and includes a variety of sandwiches or rolls, salad boxes, pasta, rice or green salad, fruit boxes, a variety of cut fruit, a cake or oat biscuit. The aim is to extend this innovative system to other schools in the county.

In addition Pembrokeshire has installed plumbed in water machines in both primary and secondary schools, 38 in all. Although the secondaries sell soft drinks as well and the primaries sell milk, the water machines provide a free and healthy alternative to 'liquid candy'.[3]

to host farm visits for the children, staff and parents. Riverford offers a keen price for fresh seasonal produce that is sound but both parties have noted a mutual interest in making the most of so called 'outsized' or cosmetically blemished items.

Another business relationship set to help the school move towards its Food for Life targets is one with a local organic processor and food preparation business owned by the parent of a child in the school. Tideford Organic Foods donates one very popular (meat and vegetarian) organic pasta meal per month and has done over the past eighteen months. Tideford also already buys organic dry goods by the pallet and in support of the Food For Life project the company has negotiated access for the school to a shared delivery drop from the same wholesaler. This arrangement will give the school access to the same discounts for many important organic staples and will go a long way to helping it meet its overall Food For Life organic target of 30 per cent of all ingredients.

Sourcing meat – the single most expensive ingredient – locally has proved more of a challenge, due partly to anxiety from the school about paying the necessary premium for organic supplies but also to sensitivity among a few parents involved with non-organic meat production. From the start of the autumn term it is hoped that it will be possible to move away from local non-organic meat towards using a proportion of organic beef, lamb and chicken along with pork from a free range source that uses a GMO free diet. Managing this change may not be easy due to the constraints that apply to relatively small orders.

Turning its attention to the Food For Life curriculum target the school has also begun planning educational visits to Riverford Farm (the school's vegetable supplier) from September.

Sopley School, Hampshire

This small rural school with 84 pupils did not wish to opt out of the local contractual provision. It has chosen instead to engage with its contractor Hampshire County Council Catering Service (HC3S) and negotiate a different menu using fewer processed and more local, organic ingredients.

The move to change the menu began when the number of children taking school meals fell below 50 per cent. The governors and head shared their concerns with HC3S and agreed to introduce a new menu with more home made foods and less processed ingredients. After surveying the children and their parents, the new menus were introduced as part of a special 'food week' held in February 2003.

As part of this food week every child kept a daily food diary and participated in a range of other activities and short talks tabled in a logical sequence. To begin with a local farmer came to talk about where food came from on Monday. The school nurse explained on Tuesday why it's important to eat a variety of food and introduced the notion of Five-a-Day. On Wednesday each class did some food preparation or cookery to make items the parents were invited in to taste at the end of the school day. Beforehand, the head and HC3S met with parents to explain about the new menu. Later in the week the pupils compiled a recipe book and held a fruit tasting session to try out new fresh fruits.

The success of food week led the school cook to work with the children to develop their ideas about improving what was offered for lunch at school. When that was all agreed the school negotiated a start date for a new regime with the contractor and began to identify local suppliers, starting with a source of high quality local and organic meat.

The new menus feature a mixture of more traditional and modern healthy dishes. The school won the contractor's co-operation partly because the new menu involves nothing complex and nothing especially costly – indeed they employ many dishes that are simple to make and work out cheaper to produce than much of what was served before. These include a daily 'light'

Sopley School old menu

Processsed items of concern are in *italic*

	Monday	Tuesday	Wednesday	Thursday	Friday
Main	• Beef or turkey • Spaghetti bolognaise or lasagne	• *Pork burger in a bap or bacon and turkey grill in bap* • *Fish favourite*	• Spicy sausage pasta • *Chicken in the jungle*	• *Fish favourite or fish burger* • Turkey roast	• *Pizza* • *Chicken nuggets*
Vegetarian option	• *Cheese crescents*	• *Vegetable nuggets*	• *Cosmic crunchie*	• *Crispy cheese pancake*	• *Fish favourite*
Starchy food and vegetables	• Mashed potatoes • Bread or rice • Golden sweetcorn • Second vegetable	• Chipped potatoes • Pasta or rice • Spaghetti 'O's in tomato sauce • Second vegetable	• Potato smiles • Cheese bread or rice • Garden peas • Second vegetable	• Roast potatoes • Bread or rice • Carrots • Second vegetable	• Jacket potato • Bread or pasta • Baked beans • Second vegetable
Salad	• Salad of the day	• Salad of the day	• Salad of the day	• Salad of the day	• Salad of the day
Pudding	• Fruit crumble and custard • Fruit • Flavoured milk or yoghurt	• Mini muffin • Fruit • Flavoured milk or yoghurt	• Chocolate sponge and chocolate sauce • Fruit • Flavoured milk or yoghurt	• Yeast bun • Fruit • Flavoured milk or yoghurt	• *Apple & raspberry love cake* • Fruit • Flavoured milk or yoghurt

Sopley School Food for Life menu

One week of the three week cycle

	Monday	Tuesday	Wednesday	Thursday	Friday
Main	• Spicy lamb and apricot casserole	• Meat balls in tomato sauce	• Roast chicken	• Organic sausages	• Meat curry
Vegetarian option	• Vegetaran risotto	• Boiled eggs in cheese sauce	• Vegetable pasta bake	• Vegetarian burger in a bap	• Vegetable curry
Light option	• Creamed chicken soup	• Jacket potato with tuna	• Pâté on toast	• Lentil soup	• Vegetable pakora
Starchy food and vegetables	• Rice • Jacket wedges • Carrots • Broccoli • Potato salad/ coleslaw/tomato & cucumber	• Spaghetti • Bread • Peas • Sweetcorn • Other salads	• Roast potatoes • Bread • Roast pasrnips • Green beans • Other salads	• Chipped potatoes • Bread • Baked beans • Peas • Other salads	• Rice • Bread • Dahl • Carrots • Other salads
Salad	• Seasonal salad	• Seasonal salad	• Seasonal salad	• Seasonal salad	• Seasonal salad
Pudding	• Fruit medley with yoghurt • Banana cake • Fresh fruit	• Yoghurt with dates • Chocolate cracknell • Fresh fruit	• Fruit medley with yoghurt • Apple sponge • Fresh fruit	• Tinned raspberry and custard • Jam tart • Fresh fruit	• Flapjack • Ice cream • Fresh fruit

Sopley School versus Caroline Walker Trust guidelines

Three week cycle with 100g starchy food/80g vegetable portions compared to the Caroline Walker Trust (CWT) guidelines for children aged five to 10 years.[4]

	CWT 5–6	CWT 7–10	Sopley 5–10
Energy	489 kcals	557 kcals	505 kcals
Fat (max)	19g	21.7g	19g
Saturated fat (max)	6g	6.8g	5.7g*
Protein	5.9g	8.5g	17.8g
Carbohydrate	65.2g	74.3g	67.6g
Non-milk extrinsic† sugars	14.3g	16.3g	—
Total sugars	—	—	26.9g
Fibre	3.9g	4.5g	6.7g
Iron	2.4mg	3.5mg	3.4mg
Calcium	158mg	193mg	182mg
Vitamin A	150µg	150µg	527µg
Folate	40µg	60µg	83µg
Vitamin C	11mg	11mg	48mg

*Estimate

† These are added sugars rather than the sugar that is integrally present in the food (for example table sugar, honey, sugar in fruit juice and soft drinks)

option (for those wanting an alternative to a big hot meal) that is often simply a fresh home made soup or perhaps a pitta bread stuffed with tuna and salad. While generally small, most changes are significant because they target poor ingredients and seek to raise nutritional quality by replacing them with more wholesome alternatives. The range of protein sources applied to the vegetarian menu has been widened. Sausages are now of organic quality with minimal salt and no unknown adulteration. Jacket potato and fresh cheese have replaced a processed cheese and potato puff. Plain live yoghurt with honey and fruit has replaced ambient varieties that were heavy on added colours and flavourings. Puddings also come predominantly lighter now, many more of them made from fresh cooked fruit, (helping to meet the Five-a-day fruit and vegetable targets) and biscuits are now home made and free from the hazardous trans-fat or preservatives often loaded into manufactured varieties.

When analysed during the summer term by a public health nutritionist the new Sopley menus were found to comply with the Caroline Walker Trust guidelines. Using a well established analysis based upon average food intake per child across a week the new menus were also shown to offer more nutritional content than the meals that were served before, especially in the problem areas of iron, folate and Vitamin C. These findings confirm that within the time period of the pilot the school managed to reach the nutritional targets set by Food for Life. The impact of this is currently being assesessed. It is estimated that the new menu has pushed the ingredient spend up by nine pence per child per day (from 34 to 43 pence) and labour costs have risen because more time is now spent on food preparation from raw and fresh ingredients.

While the school has made some progress towards meeting the Food For Life target of 30 per cent organic food, by the end of the summer term only around 20 per cent of the basic food ingredients being used in the school were coming from local suppliers. Negotiations were underway however with the catering contractor to switch the main source of produce to a local fruit and vegetable farmer, a change that will raise the ingredient spend a little further but ensure these ingredients are a great deal fresher and so offer more nutrients.

Building on this progress with the targets relating to its meal provision the school also began considering how it can expand its food education work both in the classroom and using farm visits along with outdoor space during the academic year starting in September 2003 in order to meet the Food For Life curriculum target.

Meanwhile, though they remain the employees of the contractor, the kitchen team has also begun to feel much more involved with the school, better appreciated for their skills, and more able to seek support from the school for help in making their menus more customer friendly. Building from their experience at Sopley, HC3S is now planning to put a further five schools through a similar process of pupil-centred menu revision and improvement over the next year.

Denbighshire parents campaign for better school meals

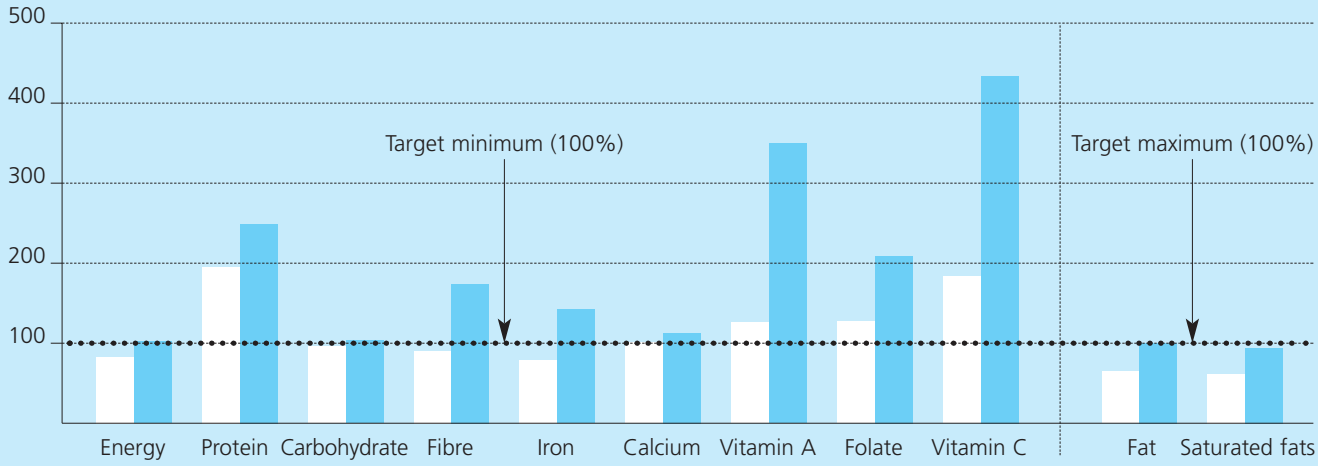
At Ysgol Betws Gwerful Goch, a small school serving a farming community near Corwen in Denbighshire, a parent's group – called Gwell Bwyd I'n Plant (Better Food for Our Children) – instigated a campaign in 2002 for locally grown, nutritious and traceable produce which would also benefit the local producer, community and economy.

Pressure for change began building when, after a local meat supplier was replaced under a competitive tendering exercise by a frozen meat company based much further away in Liverpool, the school menus began to contain many more processed 'meat' items. Letters were sent to the head of education

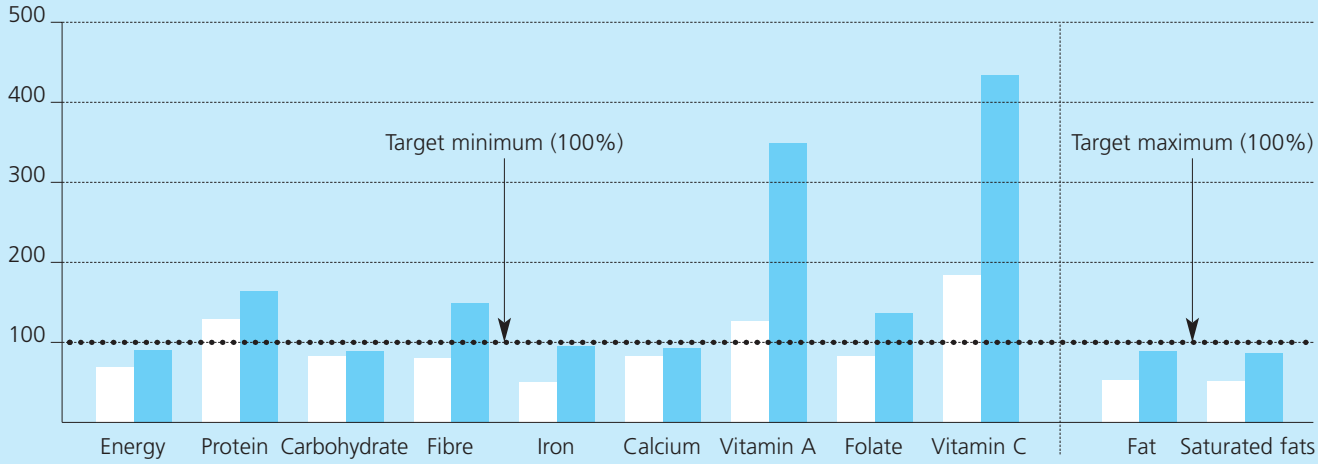
Sopley School nutrients

Percentage nutrient values for Soplely school lunches versus the Caroline Walker Trust guidelines.[4]

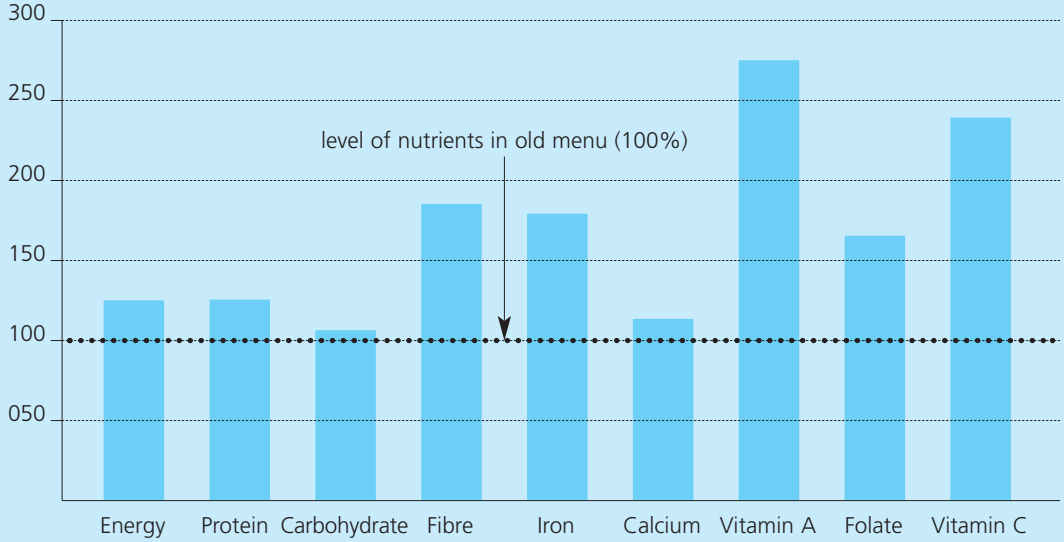
Old ( ) and new ( ) menu for five to six year olds



Old ( ) and new ( ) menu for seven to 10 year olds



Nutrient values of the new menu



questioning "the reluctance of Denbighshire Education Authority to provide their children with good quality, locally produced meat" and pointing out how greatly reduced numbers could undermine the viability of the service.

During the summer holidays in 2002 a petition was circulated among parents. Nearly every household polled – including several producing beef and lamb – signed the petition calling for children to have a healthy balanced meal at school using locally produced food.

During the autumn term parents wrote to the leader of Denbighshire Council, enclosing a copy of the petition. In that letter they suggested "Including the nursery pupils there are 50 pupils attending the school and on some days the number taking school meals is only 15. As parents we have been forced against our will to put our children on packed lunches. We believe strongly in school meals and feel it's also very important in developing their social skills. Is it too much to ask that our pupils receive good quality and nutritious lunches?"

Meetings soon followed between the LEA, the caterers and the parents. These exchanges led to two rounds of changes to the menu – made without breaching existing contacts. Among other things this has resulted in the addition of more rice, pasta and vegetables alongside the removal of all processed chicken foods, such as chicken dippers, from the menu. It has not however yet secured the provision of locally sourced fresh meat. Denbighshire council is locked into a contract with a non-local supplier until early 2004. Meanwhile Gwell Bwyd I'n Plant has been working with the council, local farming unions and members of the Welsh Assembly to try and source meat and meat products for the school locally (defined as Wales, Cheshire and Herefordshire). As local parent Graeme Lewis puts it, "The parents want meat which comes with clear traceability to UK producers in which we can have faith the meat is reared according to EU farming guidelines."

The group is adamant that their children's education should not stop during lunch breaks because "what they eat when they are young will affect both their development and their future eating habits." They also want food at school to be of the same high standard as that they are fed at home.

Gwell Bwyd I'n Plant continues to campaign locally, working to widen its supporter base across other schools in Denbighshire. It has also begun to focus more effort on raising sufficient awareness across Wales to ensure national political capital had to be invested to deliver practical changes in public sector food procurement sufficiency to upgrade the quality of what is offered at lunchtime in all Welsh schools.

Having written up its experience to date as a case study, the group circulated this to all schools in Denbighshire.[5] On 1 July, it then held an open meeting to which any interested party was invited. To their surprise, over thirty people turned up wanting to find out what they had done and asking what they could do in their own schools to improve the quality of the meals.

"We did not expect that level of turn out or to see so many others keen to take up the same agenda in their own community. Clearly however, the issue is starting to take off under its own momentum now," says Lewis. "We would only encourage other schools to continue to work with their meals contractor to press for change. We have shown that change is possible, so the more that other schools now take up this issue and press for improvements, the better for all concerned, especially the children."[6]

9 Reinventing the supply chain

From seed to plate, the conventional food chain presents the greatest challenge to real sustainable development. Getting local food into schools requires substantial reform of public and private sector catering procurement. Contrary to catering industry claims, it is possible to render the school supply chain substantially local and organic without breaching EU procurement rules. Be it private or public sector, the crucial ingredients are a desire to grow a better local food culture combined with a commitment to give the children better food to eat

"We believe the real reason why the present situation is so dysfunctional is that farming has become detached from the rest of the economy and the environment."
Policy Commission,
Farming & Food – A sustainable future[1]

Method after madness

Like most other parts of the increasingly globalised food supply system, school meals have been 'liberated' from nature and her seasons to be made available as cheaply as possible, and at an ever decreasing price. Their true costs however long ago ceased to reflect the environmental, social and economic damage currently accruing from a poor school diet that bears no connection to its origins or means of production.

In August 2001 the Policy Commission on the future of UK farming and food was appointed "to advise the Government on how we can create a sustainable, competitive and diverse farming and food sector which contributes to a thriving and sustainable rural economy, advances environmental, economic, health and animal welfare goals, and is consistent with the Government's aims for CAP reform, enlargement of the EU and increased trade liberalisation." Its remit covered England.

The central theme of the Commission's report proved to be that of reconnection. "The key objective of public policy should be to reconnect our food and farming industry: to reconnect farming with its market and the rest of the food chain; to reconnect the food chain and the countryside; and to reconnect consumers with what they eat and how it is produced."

In the aftermath of the report a range of local food procurement initiatives are emerging. All are designed to support the development of practical partnerships and delivery infrastructure required to create short, efficient and transparent local supply chains for serving quality food of known provenance in schools. Where they succeed, these stand to deliver real and lasting multiple environmental, social and economic dividends. These include healthier diets, local markets for local producers, fewer food miles and better understanding of where food comes from.

The recreation of a dynamic and diverse food culture in schools and its delivery through local food sourcing offers one of the most practical means currently available to deliver real benefits to rural communities as well to our children.

Localising procurement in the public sector

Getting more locally produced food served up in schools and hospitals was the subject of a ground breaking study conducted for the Powys Public Procurement Partnership and published in 2002 by the Regeneration Institute at Cardiff University.

Relocalising the Food Chain – The role of creative public procurement[2] examines the principle of 'non-discrimination' by which under European law it is illegal to specify the term 'local' in food procurement or to favour businesses in terms of their location in respect of all public contracts, regardless of size.

Under the same laws recognised organic standards can be specified as long as an 'or equivalent' proviso is included to facilitate suppliers without certification but with similar standards. The decision to award a contract must also be based on either 'the lowest price' or the 'most economically advantageous tender'. This latter category is broader and refers to the relationship between price and quality. The criteria employed for this – such as delivery date, after sales service and physical quality – must be made explicit during the call for tenders and the judgement objective and limited to the purpose of the contract.

Under these provisions the catering industry has long argued that localisation of food procurement can and will never work. *Relocalising the Food Chain: The role of creative public procurement* challenges that presumption, exploring and presenting a range of methods currently in use elsewhere in Europe to ensure that public sector procurement aids local businesses and fosters social and environmental objectives.

The study's authors, Morgan & Morley, illustrate how local food and organic food sourcing can provide more local jobs, improve health by giving greater access to fresh food and change local traffic by reducing the numbers of large lorries on the road. Such methods include allowing contracts to be broken down into small lots, stipulating specific product or service criteria such as fresh, seasonal menus, precise delivery times and conformance criteria. Equally they may involve the creation of not for profit bodies to run school canteens – for example parent committees in Italy (see Chapter 7, page 63) and the use of occasional special food days such as 'Norfolk organic beef' requiring spot purchases.

Five main steps were distilled from this study that are of particular relevance to school caterers:

- *Specify and buy more 'fresh' food*
  This implicitly favours local producers. It permits a partiality towards higher quality (versus more processed ingredients) and raises the inherent value of locality as a quality factor. It helps to broaden the supplier base by offering small business more scope to bid for specific lots and thus undermines the blanket domination that larger processed food suppliers tend to exert over school meal procurement. In many areas producers are now forming co-operative companies designed to provide a means by which they can respond to demand for 'fresh' food. Many farmers have now realised that such arrangements will help them regain control over their business. Local markets permit them to reduce their dependence on long distance supermarket supply chains that can routinely prove more fickle and offer lower margins
- *Use more organic ingredients*
  This delivers health and environmental benefits, directly supports the organic sector and favours local organic producers by enabling them to raise their sales without having to compete with more remote businesses. Organic food is a recognised standard for ethically produced food of known, independently assured provenance – something of particular importance to many parents when it comes to ingredients such as meat and eggs. Organic producers are often more flexible and responsive to varying demands precisely because they remain less likely than non-organic producers to be 'locked in' to distant food supply chains

- *Make more creative demands*
  A clear emphasis upon freshness, delivery responsiveness and minimal packaging can all favour local producers. Exercising a preference for recognised domestic varieties over more exotic produce has a similar impact as will seasonal sourcing to make the most of produce during periods of market glut. Likewise it is perfectly legal within EU rules to request regionally specific products carrying EU Product of Designated Origin or Protected Geographical Indication specification – such as Scotch beef and lamb, Jersey royal potatoes and various cheeses (with the proviso 'or equivalent') as a means to ensure food quality, though the UK Government has argued this point remains unclear until a test case or the Commission provide more clarification
- *Resist agglomeration and establish other models of operation*
  The centralisation of purchasing and the expansion of buying consortia closes opportunities for small producers and restricts the ability of public institutions to provide local answers to local demands. A school or parent group taking over procurement for a school may form a small organisation that can remain under thresholds that bring EU rules into force. This can remove the costly need to place official advertising and help evade competitive pressure from large suppliers selling poor quality overly processed ingredients
- *Demand or deliver support from 'above'*
  Backing from 'the powers that be' is a significant stimulus for overcoming barriers perceived to militate against local procurement. This can range from clear political leadership through the provision of more advice (about what is legal and acceptable in local food procurement) to well funded consumer education initiatives. On this point, it is no accident that the school catering organisation currently setting the pace for local sourcing (South Gloucestershire) operates within a context where the local authority has written the pursuit of sustainable development into every level of its operational management.

South Gloucestershire – breaking the mould

Since 2001 South Gloucestershire Council Catering and Contract Services has been engaged in a process of change that set out to raise significantly the amount of locally produced food used by the catering service in all the authority's schools and at civic functions.

The stated aim of this initiative is "to work together through the South Gloucestershire Local Food Partnership to increase the availability and consumption of local food and to promote healthy eating in South Gloucestershire."[3] The twin benefits of this approach are fresh healthy food for school children and other meal recipients alongside support for local farmers, in line with the council's wide-ranging sustainable development policy.

Four years ago less than a quarter of school children in this modest unitary authority (population c. 250,000) ate school lunches supplied by the council's catering service – an in-house team directly managed by the education department. Today the same service provides over four million school meals every year across the council's 115 schools (98 primary, 14 secondary and three special schools).[3] The rise from 23 per cent to 50 per cent uptake among children in local primary schools by March 2003 has been driven substantially by the decision to use as much locally produced food as possible. In addition, many schools now offer a fruit tuck service (cut fruit for 10 pence served in cones), breakfast and after school food provision, salad bars, teachers' menus and a fresh fruit and vegetable basket for staff to take home.

This huge expansion and the shift to local sourcing have been aided by the fact that within South Gloucestershire's catering operation there is no division between the procurement and supply departments and that both parts of the operation also fall under the same environmental management system. This

EU controls and local food

Three EU directives gave rise to the procedures and rules governing public procurement in respect of public supply contacts (Council Directive 93/36/EEC), public service contracts (Council Directive 92/50/EEC) and public works contracts (Council Directive 93/37/EC). Two further 'interpretative communications' sought to clarify these directives with regard to the use of environmental and social criteria and with respect to commitments adopted in the Treaty of Amsterdam (1997) to integrate environmental and sustainable development objectives into EU policies. One covers options for integrating social considerations into public procurement (COM (2001) 566 final) and another environmental considerations (COM (2001) 274 final).

During 2002 the EU Commission began revising the rules both to reduce the costs of these provisions and to ensure better parity between free trade and sustainable development considerations. However, the outcome looks likely to remain a framework where nothing explicitly favours social and/or environmental concerns over free trade principles. This ensures that 'costs' such as food miles or efforts to reduce them in school food supply, remain outside the scope of legitimate public procurement activity.

However, thresholds below which these EU rules do not apply have risen to be high enough currently that individual schools opting out may fall below them, earning greater freedom to avoid strict EU tendering guidelines. In effect, if you let contracts below the size thresholds, then you can use your own rules (unless other – national – legislation is relevant, for example Best Value) so long as you don't openly discriminate against outside businesses. While you can't directly cite food miles, you can use traceability or freshness. As several case studies in this report show, this will often enable a school to spend a bit more money on better quality ingredients.

not only permits the council to offer a client centred procurement service (focused on nutritional education, lifelong learning and customer care) but has ensured that this develops within a holistic approach to sustainability geared to curbing the environmental impacts of modern catering (energy usage, waste management, recycling, packaging).

This turnaround has been led by Kay Knight, the catering and contracts manager who has taken an integrated approach to sustainable development for the whole community while running a department that operates as a business, receives no subsidy and must perform well to survive.

Kay Knight recognised from her work in service procurement and provision that, in most cases, local producers are not, in themselves, geared to complex tendering procedures or multi-site delivery and that many would show an aversion to such processes. On the other hand, within public procurement, Knight also knew that there are few if any contracts that require the supply of goods to a single site, most require multi-site drops which can be justified (economically and environmentally) because they deliver much more than single commodities. Clearly, the development of local school food supply chains requires a different infrastructure and carefully designed contracts.

Considerable time was spent in the early stages building relationships (through the Local Agenda 21 food initiative and Local Food Partnership) with local farmers in order to identify the means for resolving these issues. The council also won a National Grid Community 21 Award of £5,000 to commission a survey of local farmers and producers to establish links between local producers of food and local catering companies, focusing initially on the council's catering service. They also received funding from the Regional Development Agency to investigate the feasibility of setting up local brokerage schemes.

One solution would be for farmers to set up their own marketing groups – a pattern of change currently being pioneered in Wiltshire that is now starting to replicate in other counties as well. At the time Kay Knight started however, local producers in South Gloucestershire had not yet formed anything approaching a marketing co-operative that could sustain the rigours of tendering and supply to the unitary authority's catering operation. Most remained discrete units offering only a small proportion of the overall products required by the catering agency. As a result, Kay Knight recognised that local producers wouldn't apply directly for contracts and would, therefore, be effectively excluded from any new tendering process unless the council helped forge links between them and the successful contractor.

Kay Knight established a contract with a large local food contractor which has in-built specifications to provide fresh, organic and traceable products that come with minimum packaging. Take for example a specification for the purchasing of meat on the hoof. The farming partners are directed to use the nearby market from which the contractor buys the meat required for the catering agency (for slaughter in a local abattoir). The contract also includes specifications to cover affordability and availability. With these in place, the service can then buy a mixture of local products and can address (seasonal or event-related) windows of need by buying elsewhere when necessary.

As a result of these arrangements locally grown potatoes, vegetables and organic apples are now delivered to schools. All fresh meat is local, with plans for burgers and sausages to be locally produced and for eggs to be fresh from a local farm. Ingredient changes have also been accompanied by significant menu reform to replace a substantial proportion of ready prepared foods with dishes made from scratch. Following from this school children now know much more about where some of their food has come from and those paying for school meals can be confident that they are supporting their community. As Knight suggests, "Parents are much more interested in what their children are eating now. They want to know where it comes from, how it's cooked and how we know it's safe." No wonder therefore that they welcome menus that come with detailed messages about how fresher produce contains more nutrients or why it also comes at a lower environmental cost.

Moreover, an approach that permits a higher quality specification than previously applied to many menu items – such as burgers and sausages containing no mechanically recovered meat – hasn't bankrupted the catering operation. In fact it is in surplus again, so Knight and her team can afford to continue buying from local producers while delivering a host of other local benefits. These currently range from schools helping to regenerate local orchards (by making the most of seasonal fruit rejected by supermarkets in school tuck shops) to a reduction in packaging waste and the recycling of cooking oil and include what the local NHS Coronary Care Trust regards as "a major contribution to the region's health care."[3]

Norfolk County Services – piloting change

Chris Cope, the catering operations manager of Norfolk County Services (which supplies school meals to most of the primary schools in Norfolk) runs a service of high standard compared to many other parts of the UK. For instance, the ingredient cost of a Norfolk school meal is 55 pence, compared with about 35 pence nationally.[4] Some of this is already purchased through local sourcing though at present that can mean anything from local butchers supplying meat from local farms to local greengrocery wholesalers supplying local and imported produce.

Having been to look at the Italian system (see Chapter 7, page 63) Cope is adamant that much more can be done in the UK than is currently being done to develop local and sustainable supply chains. To that end he has agreed to pilot developments of this kind for a group of three to four primary schools during the next school year.

"Three Norfolk schools – two urban and one rural – have already approached us asking if we could source organic food for their lunches. We were fairly surprised because it is a big step. I can understand looking at sourcing locally, but to source organic also we would see as difficult. However, we know it is important to respond to our customer's requests in a changing environment. So we have agreed to investigate what is possible and hope to have a pilot project involving all of them up and running by the summer of 2004."[4]

With so much attention being paid to turning back the tide of decline in agriculture a great deal of political pressure is now building behind the issue of local sourcing in Norfolk. "We serve a large rural area and should try to use local produce" says Cope. To that end Norfolk County Services has begun to review where it buys things – finding quite a lot of fruit, vegetables and much of the meat already coming from local suppliers. Ask whether this has surprised him and Cope can't resist observing wryly how "in some ways we are simply coming full circle because 10 years ago we would deal with a lot more local suppliers than we do now."[4]

Cope is also likely to get support from the Norfolk Food and Nutrition Group – a county body created before the work and responsibilities of the former Norfolk Health Authority were devolved out to local primary care trusts. FANG as it is known includes health promotion (public health) specialists from most of the Norfolk PCTs, as well as dieticians, East Anglia Food Links (EAFL), the co-ordinator of the Norfolk Healthy Schools initiative, and specialists from the Institute of Food Research in Norwich. FANG has initiated a number of projects including, most notably, what has now become one of the region's community Five-a-Day programmes (supported by the New Opportunities Fund).

Norfolk Five-a-Day started in the summer of this year and will run for two years. Its main focus is the primary sector where it will aim to deliver Sustain's Grab Five! curriculum in a number of schools. Co-incidentally, a £300 million Leader Plus programme (European structural funding for rural projects which have both an economic and environmental benefit) is also running in part of eastern and southern Norfolk that is fairly coterminous with the Five-a-Day area. Under that umbrella EAFL is starting to map the area's food chain to help group producers together to propose further projects. It is intended that

one of these should, if possible, be a project supplying local and sustainable food to schools in a specified area.

Linked to this is another key development enabled and promoted by EAFL: the establishment of Eostre Organics, a new producer co-op formed recently in East Anglia and already supplying households via a bag scheme[5] and a string of local and wholefood shops. This producer-led initiative will develop locally focused supply infrastructure linked to the El Tamiso (organic) producer co-op in Italy (see Chapter 7, page 67) and a wider global chain for fairly traded goods such as coffee and bananas. Eostre Organics recently began supplying a handful of schools with local, organic fruit for healthy tuck shops and will compete for contracts to support the Norwich school sustainable meals pilot project.

In addition Cope says he is under real pressure to deliver menu change more widely, "to discourage the shaped, coated and breaded items" that takes little skill to cook. Responding to that, Cope says he hopes to raise a debate about the whole subject of packed lunches. Taking a line more radical than others have yet to take elsewhere he wants to float the notion of applying the Italian approach to school lunch participation. "When I went on a study tour to Italy this year it was patently clear that one key reason for their success with organic school meals is the fact that packed lunches don't exist in their primary schools. Pupils who stay in school for lunch must eat what is offered. If they want something else they must go home – and very few do." As Cope observes, "More must be done to meet special dietary needs but it's also much easier to promote and deliver a coherent nutritional strategy."[4] Cope admits that asking parents and children to abandon packed lunches is calling for a big change to the way things run at present, but it's an idea he is keen to raise with heads and to test if possible in at least one pilot school.

Localising procurement for nursery school clusters

The story of Organic Kids Foods (OK Foods) in Plymouth is that of a private sector catering company supplying a cluster of nursery schools in and around the city, most of whom have opted to end their relationship with the local authority's catering organisation.

The focus of this report is primary school food, so strictly speaking the pace and pattern of change taking place within some private nursery schools might not seem so relevant. There are reasons however why this story offers some important insights about how change might be delivered in small primary schools over the next few years.

Across the country the lack of state funded quality pre-schools has ensured that private companies now meet a great deal of this provision. Nevertheless, most of their pupils still go off – sooner rather than later – into the local state primary schools where it seems unlikely their parents will take poor school meals as something that cannot be improved. Pressure for change will surely follow the children.

Additionally, the kitchen run by OK Foods also offers a valuable model in its own right for other small to medium sized urban or rural communities wanting to upgrade meals in a clutch of small schools. Many may no longer have a kitchen at all. Even where they do, to make opting out stand up economically there will often be a good case to form a 'cluster' with other schools in order to share a single local kitchen facility.

Nor need this simply involve schools. There is ample scope to develop relationships with a local business such as a pub, restaurant or health club where excellent large kitchen facilities and skilled staff might dovetail a midday school food delivery service into what would otherwise be a quiet period of the day. One such relationship that already exists is that between an organic café in north-west London and a local Montessori primary school.

Similarly, some kind of 'clustering' arrangements involving local business could apply to the sourcing of basic organic groceries in order to avoid paying high prices to wholefood wholesalers generally serving the retail market.

OK Foods

"Kids need a good start in life," says James Lane, sales manager for Organic Kids Foods in Plymouth, the first supplier of organic meals to nursery schools in the south-west. OK Foods began supplying Plymouth nursery schools with wholefood and organic meals in January 2002 after James found in market research that a growing number of local parents want their children to eat a lot less processed junk.

To begin with Bambino – the largest local private nursery company operating four sites – told James Lane they were deeply frustrated with the local authority food provision. As Sarah Richards, director of childcare at Bambino says, "We were fed up with the standard of food and poor liaison from the Plymouth council service."

"We sent out questionnaires asking parents what they wanted their children to eat. We'd had a huge response – more than 50 per cent sent back their forms, and they were really clear about wanting no beef, no GM foods, and organic ingredients. So we set out to look for something different confident that would give us a marketing advantage and give the children a healthier option."[6]

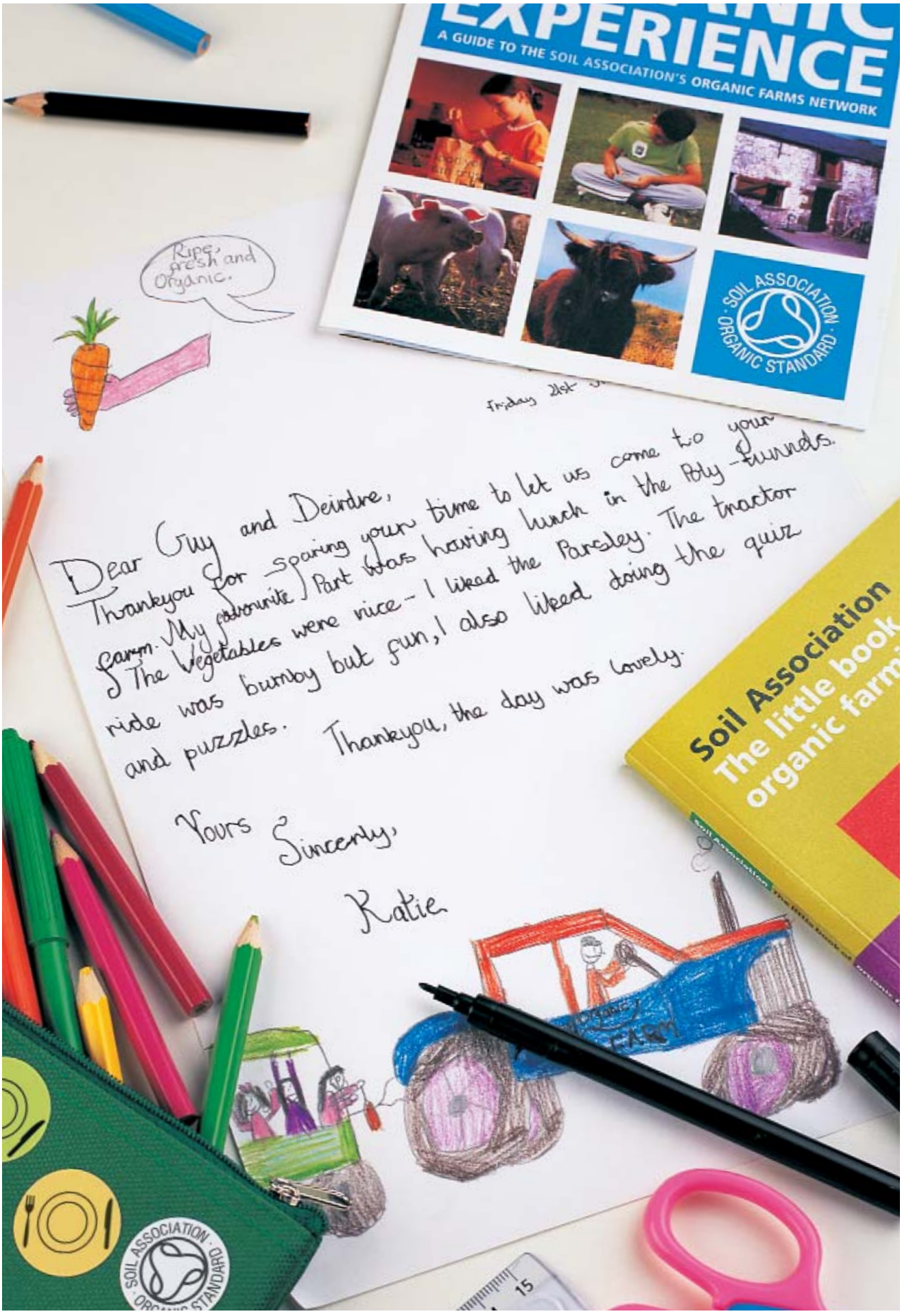
OK Foods now supplies wholefood meals, organic milk, organic fruit and home made biscuits to over 380 children in a total of 11 nurseries at prices wholly competitive to the non-organic alternative. They operate from a single modern kitchen fitted (with help from Armada Finance, a local company that nurtures regional business start-ups) into a former TV studio left derelict in the city centre. They are set to expand to full capacity by the end of 2003 and plan to open a new kitchen offering a similar local service in Exeter.

Kitchen manager Diane Woodhouse – a committed vegetarian – works with meat for the children because it is largely organic and entirely traceable. Her rolling four-week menu uses predominantly unprocessed, substantially local food and as much organic food as possible while maintaining continuity of supply. "We work hard to find as much as we can close to home. Wholesaler Riverford Organics up the road in Totnes suppliers most of the fruit and vegetables. We give a continuity of demand to Riverford that helps makes our ingredients a solid part of their bottom line." Organic basics such as sugar, oil or flour have proved harder to find on a cost effective basis any closer than Essential Foods in Bristol - a situation that highlights the need for low cost supply hubs to support local and organic fresh food provision in schools.

Nor has selling an OK service always proved simple. "In some nurseries at first the staff needed more training about the food value and encouragement to taste food that doesn't look like burgers and chips" says James Lane. Daily location monitoring reports supplied by the schools help the kitchen keep a close eye on what the children eat (and what they reject). For Sarah Richards this close monitoring coupled with flexibility and responsiveness makes the relationship with OK Foods a great improvement on what went before.

Managing director Bill Lane is confident that OK Foods' success offers a few simple lessons for many state nursery and primary schools. "If they don't want to run their own service, a small contractor with a flat management structure is likely to offer better value. Our clients don't pay for overheads incurred by a complex procurement chain. Our kitchen manager does all her own buying directly and locally – something that also ensures everything is fresh." The only magic ingredient is a team of people clear about their objectives – putting the children's needs first.

Bambino is very happy with OK Foods and Sarah Richards hopes the company will continue to thrive. Looking beyond her own domain she also forecasts that change will follow her pupils on into the local primary schools. Faced with more discerning children and more demanding parents, she forecasts that Plymouth school meals service will either change or go out of business.


EXPERIENCE
A GUIDE TO THE SOIL ASSOCIATION'S ORGANIC FARMS NETWORK
SOIL ASSOCIATION ORGANIC STANDARD
Ripe, fresh and Organic.
Dear Guy and Deirdre,
Thankyou for sparing your time to let us come to your farm. My favourite part was having lunch in the Poly-tunnels. The vegetables were nice - I liked the Parsley. The tractor ride was bumby but fun, I also liked doing the quiz and puzzles.
Thankyou, the day was lovely.
Yours Sincerely,
Katie
Soil Association
The little book
organic farm
SOIL ASSOCIATION ORGANIC STANDARD

10 Learning to eat

Farming and food are the foundations of civilisation. Yet most people – especially today's primary school children – know very little and are taught even less about where their food comes from, how it is produced or how to prepare it properly. Is it any wonder that we have a weak and unhealthy food culture that values cheapness over quality when food in the school dining hall fails to inspire lifelong patterns of healthy eating?

"If we all ate with an awareness of the importance of our food choices, there would be more health and justice on this crowded planet."
Craig Sams, author
The Little Food Book[1]

Food for Life promotes educational targets partly to encourage schools to become proactive about reviewing meal provision, but the initiative also recognises the need for a whole school approach to learning about food.

Learning by example

Efforts to raise the quality of primary school meals need to be led with measures to improve food education across the curriculum and beyond it. At present the three Qualifications and Curriculum Authority (QCA) science units that include healthy eating do not constitute adequate ongoing nutrition education. Likewise, the guidelines for Personal Social and Health Education (PSHE) and Citizenship contain some very relevant objectives, but at present they remain a non-statutory subject.

Similarly, a gulf currently exists between what children are actually taught about good nutrition and the food they are served in school (and elsewhere). Taking a whole school approach to food policy throughout the seven years of primary education, schools need to ensure they deliver quality food in the dining hall coupled with consistent messages about healthy eating and sustainable food production in (and outside) the classroom.

On the theme of healthy eating the National Healthy Schools Standard guidance suggests any school meeting these would:

- Present consistent, informed messages about healthy eating for example food on offer in vending machines, tuck shops and school meals should complement the taught curriculum
- Provide, promote and monitor healthier food at lunch and break times, and in any breakfast clubs where they are provided
- Include education on healthier eating and basic food safety practices in the taught curriculum.[2]

Involving parents and carers

Farmers' Choice is a scheme that has enabled families at Macaulay Primary School in Clapham, south London to order organic fruit and vegetables once a week for collection from the playground. Set up in September 2002, the scheme also raised £1,400 for the school over the course of its first school year.

Parents pay in advance, and collect the bag when they collect the children from school. Parent and co-ordinator of the scheme Jenny Thomas, says "We have between 20 and 30 regular customers who generally take a £5 bag of vegetables and a £6.50 bag of fruit each week. The quality is consistently fantastic."[3]

Macaulay Primary School is one of more than 40 inner and outer London schools now running their own organic vegetable bag delivery scheme. Their supplier is Abel and Cole, an organic home delivery company based in Brixton that has been supplying fresh produce from farms in the south-east since 1988.

Farmers' Choice is run as a non-profit project where earnings are split 25 per cent to the participating school, 40 per cent direct to the growers and 35 per cent for the running of the scheme. Any profit is also ploughed into an initiative to help fund more school visits to organic farms. There are also plans for an educational bus to visit schools to help teachers run more food education and gardening projects.

Since Farmers' Choice is also exactly what the name suggests – the best stuff available that week – the contents vary with the season. To help parents work out what to do with the less familiar ingredients a newsletter accompanies the produce each week. "When something less familiar turns up in the bag, a recipe always turns up too," adds Thomas.

School head Liz Divall understands the importance of a consistent message to the children: "Anything we can do to strengthen the message that long term health starts from the best eating choices when you are young has got to be good for them in every sense," she says.[4]

This guidance does not emphasise the need to explain where healthy food comes from or to teach about the relationships between a healthy food chain and a healthy environment. Moreover, as evidence presented in Chapter 4 illustrates, in the majority of schools the bulk of what may be taught about healthy eating in class is widely contradicted by what is served up for lunch.

In addition, to change long term patterns of behaviour, primary school pupils need to be praised for healthy eating in much the same way as they are already commended for good work habits or kindness to others. To that end, this guidance should also stipulate that a 'healthy school' will reward children in ways that do not undermine the broader goals of the programme – with a free trip to the swimming pool or a book token rather than with sweets, chocolate or fast food meal vouchers.

Learning to participate

One of the most important starting points for developing better food education should be activities that extend children's participation in decision making about the meal provision. This is increasingly possible through the new 'citizenship' area of the curriculum where children are to be actively encouraged to understand their rights and their responsibilities as consumers and to learn how to make informed choices, for example about the food they eat. To that end schools should provide opportunities for collective involvement in decision making through a food group or a school council.

In recent years many schools have formed a school nutrition action group (SNAG) using a model pioneered by the Health Education Trust.[5] SNAGs are a school-based alliance of teachers, pupils, parents and caterers, supported by health and education professionals. SNAGs work to develop whole school policies on food and nutrition covering anything from water provision to packed lunch content and vending facilities.

SNAGs involve young people in decision making about food services in ways that can facilitate highly beneficial change. Evidence accumulating about SNAGs also reconfirms what the Victorians knew a century ago: that links exist between children who are well fed and improvements in attendance, concentration and attainment, not to mention a school's reputation.

The emergence of SNAGs and the introduction of 'citizenship' provide opportunities for schools to move beyond the constraints of the curriculum in ways that recognise their pivotal place in the wider community. A change in food culture in the school can permeate widely into other parts of the local community, influencing the choices made by pupils, their parents, carers, friends and other relatives well beyond the school gate.

Learning by doing

One well known adage often cited by environmental educators suggests that 'children retain around 80 per cent of what they do and 20 per cent of what you tell them'. An interactive, integrated, practical food and environmental education is therefore likely to make a lasting impact on children who get to participate in such activities.

The Government has recognised this, and their 'Growing Schools' initiative provides scope to use 'the outdoor classroom' for imaginative, practical activities such as vegetable gardening and composting (see panel, facing page). The challenge is to ensure that teachers are trained appropriately so that they have the confidence, enthusiasm and time to deliver a connected 'seed to plate' education that integrates learning about the environment, human health and real food.

Parents meanwhile also want to see the reinvention of domestic science in the modern school curriculum. In its most recent biennial survey of school food and lifestyle issues, catering giant Sodhexo found that 82 per cent of parents want their children to be 'taught to cook' at school. For young parents this anxiety must partly reflect the proportion of current 20 to 35 year olds

who saw domestic science teaching more or less eradicated during their own school careers. Cookery is a subject that has been largely abandoned by successive changes to the curriculum once the child moves on from nursery. At key stages one and two it is buried inside the design and technology curriculum alongside topics on food hygiene and positive attitudes about food.

Hands-on cooking opportunities need to be provided in many more schools to nurture enthusiasm for food preparation and cultivate an appreciation of good food among children. Supermarkets have recognised this, for example Waitrose's Focus on Food scheme and Taste of Success sponsored by Sainsbury's. The Academy of Culinary Arts also provides chefs who are willing to 'adopt a school' and provide culinary inspiration to pupils.

Training teachers and providing materials

If children are to learn more about food and farming both in the classroom and on location, it is important teachers are confident in delivering these lessons. An enlightened approach is required to deliver this to existing and trainee teachers through in-service training days, 'twilight' meetings and initial teacher training.

Food for Life recognises that teachers are under relentless pressure to deliver the 'core curriculum' and that the demands of literacy and numeracy hours alongside the many curriculum targets imposed on schools leaves many teachers short of time and energy to think about wider themes such as those addressed in the new citizenship subject.

To help make food an important element of school life teachers need easy access to creative educational materials covering agriculture, food, health and the environment that link directly to the national curriculum. The Soil Association has recently developed a Food for Life curriculum pack that is available to all schools, including those who are taking part in the Food for Life pilot (see Appendix 3, page 112). The goal of this material is to enable teachers to convey a coherent and consistent message about sustainable food sources, animal welfare, healthy eating, food appreciation and cooking.

Many other food and farming organisations also provide support materials for teachers and pupils on various aspects of food education. Sources for some of this material can be found in Appendix 3. More detailed listings are provided in the Food for Life action pack (for details see page 109).

"When I was five years old my mother took me to visit a dairy farm in Essex. Brought up in and around London, this was my first time on a farm. I remember standing in the cowshed, as the sweet smelling animals were being milked into stainless steel churns. This experience – its sight and sounds – left a lasting impression and 15 years later I established an organic dairy farm in west Wales."
Patrick Holden, director of the Soil Association[6]

Learning on the farm

Research shows that farm visits organised by schools enable children to make a tangible connection between the food they eat and the way it is produced. They also see at first hand the impact of farming on the natural environment. A school visit to a farm is often the first time a child – and sometimes even the teacher – has set foot on a farm.

In its report *Farming & Food – A sustainable future*, the Policy Commission made specific recommendations relating to children and their education. It called on Defra to work to establish a pilot scheme of demonstration farms by the end of 2002. The same report recommended that all LEAs ensure that every child visits a working farm as part of their primary and secondary education.

Focus on Food

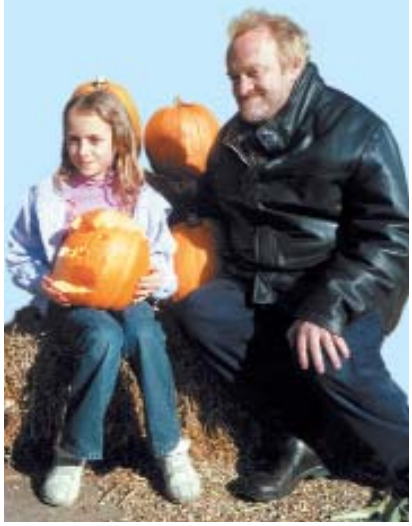
Focus on Food is a five-year education initiative, currently in its third year, run by the Royal Society of Arts to encourage children to develop a lifelong appreciation of food and its preparation. Focus on Food believes all children have a right to practical food education so it campaigns to get the Government to write this back into the national curriculum. With support from Waitrose, Focus on Food explores many opportunities for using food learning as a teaching medium for a broad base of subjects as well as equipping young people with the practical and social skills they need to live and work.

Over two thousand schools have registered with Focus on Food, demonstrating the popularity and nationwide backing for this agenda. Registered schools receive a comprehensive teaching and learning pack free of charge which includes complete lesson plans, activities, recipe cards, curriculum links and teachers' notes, emphasising the importance of food education, as well as making learning fun. Each year Focus on Food promotes a specific theme – in 2003 the range of food traditions enjoyed in Britain today, covering Italian, Chinese, British, Caribbean and Indian food and culture, including any religious background, how these cooking styles came to Britain, ingredients, utensils and cooking methods.

Registered schools may also work with the Cooking Bus, an expandable pantechnicon which converts into a classroom with four fully fitted kitchens and a capacity to hold a hands-on class for budding chefs and teachers alike. Special workshops are also held for teachers with the belief that by equipping them with training in food education, more children will benefit as they take their knowledge and experience back to the classroom.

Adopt a Pumpkin

At Ashlyns Organic Farm in Essex (one of the Soil Association's network of demonstration farms), Jim Collins runs an 'adopt a pumpkin' initiative every year. Here local children visiting the farm or its shop in May get to collect a seedling from the greenhouse to cultivate in school or their back garden. Later in the year – at Halloween – these same children are encouraged to return with their teachers or their parents bearing their largest, finest pumpkin to take part in a pumpkin party (as witnessed recently by chef Antony Worrall Thompson, below) that is focused on this colourful autumn vegetable. Having grown their own pumpkin the children take part in creative activities to make jack o'lanterns and then sample tasty soup and pie made from the pumpkin flesh – an excellent example of real food education that reconnects children to growing their own food, to cooking and to culture.



Taking the class to a farm provides a valuable opportunity to deliver targets in almost all areas of the national curriculum. Organic farms provide a satisfying and fulfilling experience for pupils and are exciting and motivating places for children to visit. They are by definition usually mixed enterprises running a range of different activities involving crops, animals and or horticulture and as such offer a good venue for practical learning about food, health and the environment.

For their part, establishments like Ashlyns Organic Farm near Harlow in Essex recognise the importance of educating future generations about their activities and employ two part-time education officers to lead school visits around the farm. As Jim Collins admits, he has been surprised by the popularity of visits to his farm because he was told it would be very difficult to get schools to come. Yet, throughout the spring and summer of 2003 Ashlyns had at least one group a week, from schools in term time and from many other children's groups in the holidays.

Evaluation of school visits to the Soil Association's network of organic farms has already confirmed that teachers witness a real breadth of learning during school visits to farms. All the teachers who responded to a recent survey stated that as a direct result of such activity, pupils had progressed in their knowledge and understanding as well as in the area of personal and social skills.[7] As Mary Nicholls, a junior class teacher at Water Lane Primary School in Harlow said of a visit to Ashlyn's this spring: "To see the surprise on their faces as they dug up some potatoes and carrots made one realise how little they knew about the food they eat and where it comes from. As we picnicked by the lake it was hard to believe that this difficult class was so enthused by all that was surrounding them."[8]

To deliver the goals of the Policy Commission much more education funding needs to be channelled towards farmers willing to host school visits. Educational groups rarely provide an income stream for these farms but investment is required to sustain access – for example, to provide handwashing and toilet facilities to comply with health and safety regulations. Wider uptake is also likely to depend on whether funding is provided to cover the transport costs incurred.

Delivering funding to support the expansion of educational farm visits need not be complicated. Both Defra's Countryside Stewardship Scheme and the Countryside Council for Wales Tir Gofal Scheme could be adapted to offer more support to this educational work.

"Under the national curriculum there has been a substantial move away from hands-on education. Teaching is now 'done' predominantly to school children when in fact they learn a great deal more by doing their learning for themselves."
David Carruthers, head, Melbourne Primary School, East Yorkshire[9]

Food education for life

The roots of a strong and healthy food culture lie in enabling children to discover where food comes from, the way it is produced and how it may be prepared. Healthy eating initiatives mean little in the long run if they do not seed a life-long love of good food and a deep understanding of the need for a healthy diet. Food education is both more fun and likely to be retained far better when begun on the farm or in the garden, followed up in the classroom and completed in the kitchen or school canteen. The following case studies show some practical ways in which this has been achieved.

Primrose Earth Awareness Trust (PEAT)

Located in Powys, Wales this project gives local school children opportunities to participate in a diverse programme of activities covering: organic food production, forest gardening or permaculture, environmental art, sustainable

building and living techniques. All these activities respect the Earth and encourage wildlife and biodiversity in the natural habitat.

PEAT is one of several developments at Primrose Organic Centre near Brecon, a 0.6 hectare haven created from a small, bare field that generates some £19,000 worth of quality produce sold locally every year, most of it (circa 85 per cent) within a five mile radius. The productive area at Primrose includes a small (0.2 hectare) mature forest garden and a young circular forest garden surrounding a willow labyrinth. Rows of fruit trees, fruit bushes and perennial herbs have been planted within the organic market garden to maximise production and break up the annual cropping areas such that around 100 different varieties of fruit and nut trees are now growing at Primrose.

Paul Benham founded PEAT in January 2000 to continue work begun with local primary schools to raise awareness of food producing systems carrying minimal environmental impact. In 2003 PEAT offered six curriculum-linked 'focus days' for the summer term, and a further six for the autumn term. Each had a theme such as organic and sustainable gardening, wool and its uses, using our senses in the garden and the history of the local Black Mountains. All the wokshops took a practical approach to learning, with opportunities for children to participate in the many developments happening at the centre.

Twenty-five schools have so far brought children to PEAT and it is anticipated all will do so regularly for the foreseeable future. Teacher Matthew Harris at Llanigon School until July 2003 (and now head of a school in Builth Wells) took three groups to PEAT a total of four times over the past two years enabling many to see their efforts rewarded. He says, "The children are very inspired by the wide array of beautiful, natural settings at the centre and by learning many practical skills." Taking that inspiration back into school the same children are now working with Paul Benham to plan a sustainable food garden and to design and establish an attractive peace garden in their school grounds. Peace gardens seek to deliver social enhancements to the children's education in the form of venues such as 'friendship' or 'dream benches' for exploring ways to mediate inner and outer conflicts.

Each school visiting PEAT regularly also has its own section of garden where children learn through doing about composting, soil preparation, planting and harvesting. They may weave willow tipis or harvest baskets and take produce back to school to cook traditional fare such as cawl (Welsh soup). Using games and role-play they also learn more about the merits of sustainable systems compared with monocultures, and about the hugely different journeys from 'seed to plate' within the spectrum of permaculture to big agribusiness.

Paul Benham believes the pathway to a sustainable future starts with this kind of primary education. "The children are very open to the experiential learning we offer. The schools are flexible and imaginative about what they do with us and the curriculum is even starting to embrace the issues we address. Above all the concentration the children exhibit when they are with us, coupled with their enthusiastic evaluation forms, makes us keenly aware that they love what they do here and take away a lot of very valuable knowledge and understanding."

Scotalot – the allotment garden of an inner city primary school

"Learning by doing in the garden" also lies at the heart of the approach to a food, health, science and language education taken by Scotholme Primary School, a multi-faith, multicultural inner city school in Hyson Green, Nottingham.

As a nursery nurse for 30 years at the school, Angela Verity grew keenly aware that many of the children in her community were growing up without easy access to gardens or open spaces. She also came to believe that this pattern of experience, combined with the emergence of a convenience-food

Growing schools and training teachers

One of the flagship projects funded under the Growing Schools initiative and run by the Countryside Foundation for Education sought to equip teachers with the skills to use farming and growing as a context for learning across the national curriculum. Three partnership clusters were based around teacher training institutions, and involved local schools, Learning and Skills Councils, and organisations involved in farming and growing. Located in Sunderland, Sheffield and Gloucester, the clusters reflected both rural and urban environments and all key stages. Each cluster developed models of both initial teacher training and in-service training. Some also developed a scheme of work that linked food and farming issues with the National Curriculum. These programmes were compiled into an intranet resource student teachers can access, together with a module in the teacher training year to enable trainees to explore the potential for food and farming topics to deliver curriculum targets. Work is now underway to disseminate the outputs from these projects more widely.

FIG rolling out

Scotholme Primary School's allotment project is supported locally by the Greater Nottingham Food Initiatives Group (FIG), an action group formed in 1998 to encourage organisations and individuals to consume healthy, safe, affordable food from sustainable sources, including locally grown and organic food.

FIG recently produced a School Food Pack that has been distributed to every school in Greater Nottingham. This pack contains a guide to implementing a school food policy, and includes practical guidelines on everything from running a healthy tuck shop to better vending foods and setting up a growing food project within a school. Funding restrictions mean that this material is not currently available for general purchase. FIG is however open to enquiries from local organisations elsewhere in the UK interested in repeating or building on this work.[10]

culture, meant that local children were growing up with little or no awareness of where their food comes from, how it is grown or why some things are better eaten in moderation.

In 2001 Angela retired as learning support assistant at Scotholme. Taking on a part time post of community liaison officer for the school she became involved with a debate already running among health professionals in the city about escalating levels of hyperactivity, poor attendance and concentration among primary school children. "While the link was and still is contested, many of us knew from first hand experience that these problems were certainly made worse, if not actually caused, by a bad diet," says Angela.

Angela worked for nearly a year to build links with and win support from a range of relevant local partners such as Groundwork and Growing Places. In February 2002 the school took out a lease for a large plot (540m^2) with the Whitemoor Allotment Association. Scotholme's pupils duly named the project Scotalot and a project was born which aims to provide the children, their parents and carers with an area for developing environmental awareness and a communal garden in which to learn to grow their own organic food.

"Our overall aim at Scotalot is to plant the seed and promote life-long learning for healthy eating. This is aimed at pupils and their families as well as the school's friends in the wider community. The children will learn the skills to plant, grow, harvest and eat their own organically grown fruit and vegetables. In the longer term we also hope much of the food produced can be incorporated into the school meals or given to parents for use at home."[11]

From the start the children had a direct input to design and planning for the site so that after many months of clearing and preparation they were more than ready to roll up their sleeves and get started. What began less than two years ago on a near derelict site bearing two lonely plum trees has become a productive and imaginative garden with a large polytunnel, an outdoor classroom area and an outdoor toilet.

Through persistent and effective fundraising, Angela has brought enough money in to the project to fund two organic horticulturists to tutor twice weekly sessions with teachers and support staff. With a rotating timetable this means every child in the school has time on the plot several times each term. Activities cover many different parts of the curriculum – from digging and planting to compost making, wildflower seed collection, nature games, creative writing about the seasons and exploring what food they like to eat or might want to grow in future.

Angela Verity says "the children are very proud of the work they do here and they love the time they spend on the plot. They have begun to develop much better scientific skills from their hands-on activity in the garden. They are picking up a solid appreciation of the life cycle for both plants and insects as well as more knowledge of the seasons and the impact of the weather throughout the year. They are learning what we can and cannot grow here and are starting to ask for unusual varieties, some of them things their grandparents can recall from when they were young."[11]

Joining up the Cumbrian food chain

In several parts of the UK some of the most forward and imaginative food education work in primary schools is being funded substantially out of health education budgets. Primary Care Trusts often appreciate the value of hands-on 'seed-to-plate' education more substantially than school heads. Yet once they are given the linkages and the right support, teachers and their children blossom in such programmes.

More than three years ago – and long before the area was decimated by foot and mouth – Sharon Rourke of the Rural Regeneration Unit (RRU), a not-for-profit company, formed a partnership with the Health Action Zone to undertake work designed to improve ties in the local food chain of north Cumbria. The purpose of this work was quite simple – to raise local health standards by linking town and country in an area where a clutch of marginal

urban communities have some of the worst health statistics in Europe for heart disease, cancer and other health related problems.

RRU has developed a range of local food networks including food co-ops and box schemes alongside other food education initiatives across the area.[12] With funding via the primary care trust's North Cumbria Health Action Zone, RRU also looks at healthy eating, Five-a-Day, develops patchwork gardens in schools and pays to take years' five and six children to visit mixed farms and fish farms.

Gary Messenger, the food development worker for the RRU/HAZ partnership in North Cumbria, says, "We begin our work in schools with a patchwork garden – which consists of four raised beds or up to 20 pots – in order to show how food and vegetables are grown. These are now running in a total of 28 schools. Heavy preparation work is delivered by a local market gardener but the children are soon encouraged to roll up their sleeves and to get involved. Sometimes this is in class time, but also via a gardening club if we can find a parent or grandparent willing to run one. The methods used are broadly organic and we also give each school a new compost bin to encourage composting of waste generated from the national fruit in schools scheme."

Alongside this RRU has developed a programme of seed-to-plate farm trips. At a trout farm in Borrowdale, children learn about the life cycle of fish. They can try to catch a fish, and if they don't manage it, they are given one to take away with them. They learn how to clean and gut the fish before they are encouraged to take the fish back to school for a cookery session.

RRU also takes groups to Low Luckens, an organic farm now part of the Soil Association's demonstration farm network that markets all its organic beef, lamb and pork through its own on farm butchery and local farmers' markets. Alongside the farm, Mike and Ruth Downham run the Low Luckens Organic Resource Centre, a non-profit making community venture designed to promote awareness of sustainability issues.

Gary Messenger says that on farm trips the children are riveted for the entire day. "On the farm the children can see and touch the animals – many for the first time up close. They learn about organic farming and how it works. They can also see a small but fully functional kitchen garden full of vegetables they can try to identify and herbs that they can taste. The children see meat being processed in the butchery and watch how this is turned into high quality, wholesome burgers that they are then given to take home or back to school to cook. During lunch we also look at what is in their food boxes, talk about what else would make a packed meal more nutritious and provide extra fruit to give them a chance to swallow and digest what they are learning."[12]

Gary is convinced that when it comes to healthy eating, raising awareness at the earliest possible age is of great importance. "Educating children from primary school age and re-educating their parents is something we must continue to do and build upon for the future. This thread must be sustained throughout secondary schools so that our children are taught how to make a simple, nutritious balanced meal and not just designer food packaging or a 'high energy' bar for athletes.

"Look after our children and the athletes can feed themselves!"

Recommendations

What the Government must do

All children at primary school have a right to healthy, wholesome and enjoyable school meals – made from fresh, high quality ingredients – which play a key part in their educational day. To deliver this, the Soil Association has identified six key actions the Government must take. These involve the responsibilities of several different Government departments, but clearly the lead must be taken by the Department for Education and Skills (DfES), given their responsibility for the well-being of children in schools. DfES should make the achievement of real progress in this area one of the benchmarks by which a primary school's achievements are judged. To fulfil its responsibility to children in primary schools, DfES, working with other departments, should take the steps set out below.

Standards

DfES should establish monitored, quantified nutrient-based national standards for school meals (applicable to what is actually eaten by children, as well as to the food served to them). Guidance to caterers, food and health training, and relevant computerised tools for planning and monitoring menus, all need to be provided at a national level.

The nutritional standards should be based on the Department of Health's daily nutritional recommendations for children, and should implement the Caroline Walker Trust guidelines for school meals. As a result school meals will provide 40 per cent of daily requirements in respect of positive elements in the diet (including two fresh vegetable portions), and no more than 30 per cent of daily requirements in respect of negative elements in the diet (including salt).

Funding

DfES must provide sufficient new funding to ensure schools and local authorities can deliver the required improvement in school meal provision, through at least a doubling of the money spent on ingredients. Without this,

the substantial improvement in the quality of food used in school catering that is required to meet the Government's own nutritional standards for children, recommended by the Department of Health, will not happen.

The Soil Association estimates that this will require at least an additional £200 million per annum in England and Wales. This is based on an extra 35 pence per child per meal (on ingredients) for an initial target of 70 per cent of the total 4.4 million children attending primary schools in England and Wales eating 190 school meals per year.

In Scotland an extra £63.5 million is already being spent over three years to fund a programme of school meal reform that includes quantified nutritional standards accompanied by wide ranging plans to refurbish kitchens and upgrade dining facilities (in line with costed recommendations made to the Executive in the *Hungry for Success* report.) Producing a fully costed budget for the reform of all UK primary school meals is beyond the scope of this report. The total additional expenditure required in England and Wales will also need to cover, for example, improvements to kitchens and dining halls, training, visits to farms and facilitating local supply chains.

The right of children to enjoy a healthy diet, and the reality of serious and widespread ill health in the absence of such a diet, make such expenditure a duty the Government must meet.

Menu targets

To drive forward change, DfES and schools should adopt the Food for Life targets of 30 per cent organic food, 50 per cent locally sourced food and 75 per cent food prepared from unprocessed ingredients (by weight of ingredients) for all primary school meals.

These targets are required to achieve a wholesale change in the nature of food served in schools. They will deliver better nutrition coupled with less dietary pollution for school-aged children; lower environmental impacts arising from school catering through lower food miles; and the accelerated development of a restructured food and farming industry focused on quality food of known provenance from sustainable sources.

Uptake & inclusion targets

The uptake of free and paid school meals must be measured and increased, to reflect the key importance of the primary school meal as a central part of children's social education, and to reflect their significance in the Government's investment in public health.

The DfES should require Local Education Authorities to achieve 50 per cent uptake of school meals in primary schools as a result of their implementation of revised menus. DfES should aim for 100 per cent uptake of schools meals within 10 years (with education authorities delivering the full range of special diets, including, in partnership with parents and carers, the full range of medically prescribed diets and appropriate provision for children with special educational needs).

Active dialogue and involvement

Government policy should be for all school meals to be a pleasant, positive, educational experience where school children enjoy eating and conversing together and with adults, while learning the benefits of healthy eating and gaining an appreciation of good quality food.

DfES should require the full participation of children, parents/carers and teachers in the planning of school meal provision. Schools should encourage parents to eat school meals with their children on a regular basis. Schools should ensure that some teaching staff eat (free) school meals with their pupils every day, and that most teachers have an opportunity to share a meal with their pupils at least three times a week.

Those school dining halls that require it should be refurbished to make them inviting places to spend time. All schools should be encouraged to demarcate lunchtime usage of dining halls with tablecloths and place settings.

Food education

In line with the Government's policies on sustainable development, food and farming, reconnecting school children with the natural world and the foundations of the food chain should be a priority in all relevant areas of the school curriculum. Whenever possible, food should be grown in school grounds and children should have opportunities to learn how to cook. These activities should be supported by classroom education, linked to the National Curriculum on food, farming, health and nutrition.

Every school should build a relationship with a working farm engaged in a mixed range of agricultural activities, preferably employing organic methods. Each child should also have visited a farm supplying the school with food ingredients at least once in their primary school career.

What companies must do

As the report has made clear, private companies play an increasingly important and influential role in the provision of primary school meals. All companies involved in producing and selling ingredients and products used in primary school catering or curriculum activities must recognise the responsibility they have to the well-being and education of the children who, usually without having any choice in the matter, are their customers. As a starting point, all companies involved in providing services to primary school children should adopt a code of good practice, making the following commitments:

- To promote no brands in primary schools in any way (including school dining service identity concepts)
- To ensure that charitable donations made in support of any educational activity, including the collection of vouchers for school or educational equipment, involve no corporate branding of any kind, through logos, labelling, colour schemes, titles, and slogans or via selected information content. Philanthropy should be encouraged in support of schools and their activities, but when donations secure opportunities to develop relationship marketing, whether for Coca Cola or organic fruit juice, the activity ceases to be philanthropic, and becomes commercial marketing of a sort that has no place in primary schools
- To provide only pure milk or water to drink in primary schools
- To serve no food containing any potentially harmful or suspect additives in the list developed by the Hyperactive Children's Support and Action Group
- To serve no mechanically recovered meat in primary school meals
- To serve no food containing monosodium glutamate or similar (related) hydrolysed protein flavouring salts (in line with current provision for food supplies to children under the age of three)[1]
- To take steps to cap the portion size of single-serve packages and provide guidelines for the nutritional characteristics of all products
- To label all foods with their key nutritional content (Group 2 or '4 + 4' declaration) as recommended by the Government.[2]

Many companies may wish to develop a code of best practice for primary school catering that goes further than this limited set of minimum requirements. The Soil Association is happy to discuss how a more refined code can be developed and adopted.

The challenge to all stakeholders

These recommendations represent a huge challenge to all engaged in education, school catering and food production. They also represent no

Recommended

To finish, the pupils at Food for Life pilot school, St Peters Primary School, Nottinghamshire, are partial to the delights of their prepared on the premises apple and blackberry crumble served with fresh milk custard.

more than a beginning, a framework from which a wide range of further detailed policies and measures will follow. These include the need to provide information and guidance, the development of training and curriculum materials and the reform of the school food supply chain.

These changes are the minimum needed to ensure children in primary schools enjoy healthy, wholesome and enjoyable school meals made from fresh, high quality ingredients. They are the minimum needed to ensure our school children learn about their food, where it comes from, how it is produced, how to prepare it, and learn to enjoy the combination of food and conversation. These changes will play a crucial part in helping to secure a sustainable future for British food and farming. Above all, these changes are desperately urgent if we are to prevent the escalating, diet-related disease burden now threatening the well-being of an entire generation.

Appendix 1
Caroline Walker Trust guidelines

Guidelines for primary school meals (summary)[1]

Though prepared more than a decade ago these Caroline Walker Trust guidelines remain highly relevant today.

In keeping with the recommendations made to the Scottish Executive by its Expert Panel on School Meals in November 2002,[2] these guidelines would benefit however from two specific additions.

One of these would reflect the World Health Organisation's *Recommendations on Diet, Nutrition and the Prevention of Chronic Disease*[3] on fruits and vegetables. Applying this as part of a quantitative nutrient standard for school meals would require specifying that around 30 per cent of daily fruit and vegetable requirements should be supplied by school lunch.

The second would reflect recent guidance issued on sodium provision. This should now be specified as being no more than 30 per cent of the guideline values set in May 2003 by the Food Standards Agency.[4]

*These are added sugars rather than the sugar that is integrally present in the food (for example table sugar, honey, sugar in fruit juice and soft drinks)

Nutrition		**Infant**	**Junior**
Energy	30% of estimated average requirement	2.04MJ 489Kcal	2.33MJ 557Kcal
Maximum			
Fat	Not more than 35% of food energy	19g	21.7g
Saturated fatty acids	Not more than 11% of food energy	6g	6.8g
Non-milk extrinsic sugars*	Not more than 11% of food energy	14.3g	16.3g
Minimum			
Carbohydrate	Not less than 50% of food energy	65.2g	74.3g
NSP (fibre)	Not less than 30% of the calculated reference value	3.9g	4.5g
Protein	Not less than 30% of the reference nutrient intake (RNI)	5.9g	8.5g
Iron	Not less than 40% of the RNI	2.4mg	3.5mg
Calcium	Not less than 35% of the RNI	158mg	193mg
Vitamin C	Not less than 35% of the RNI	11mg	11mg
Vitamin A (retinol equivalents)	Not less than 30% of the RNI	150µg	150µg
Folate	Not less than 40% of the RNI	40µg	60µg
Sodium	Should be reduced in all catering practice		

Appendix 2
References and source notes

Executive summary

1 *LACA Yearbook 2002/2003*, LACA
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Appendix 3
Action list for heads and governors

Consider your options

With deregulation in April 2000, it became possible for primary school heads and governing bodies to take full control of their school meal service. To date where schools have chosen to exercise this right they have done so usually because there is an overwhelming consensus for change among school staff, kitchen staff, midday supervisors, governors, parents and external support agencies (such as a primary care trust). The overwhelming desire is to give their children a much better service than they are currently getting.

More often than not a desire to pursue a whole school approach to social exclusion, health and environmental education draws immediate and substantial attention to the ways in which food access and quality impact upon every aspect of school life. This is as it should be and can be read as the clearest possible indication that your view point is well founded.

Sometimes the initiative will come from kitchen staff, keen to become a close and respected working partner in the school rather than some semi-disposable form of cheap labour employed by a fairly distant and largely uninterested contractor.

On the face of it schools keen to tackle an unsatisfactory meals service have three choices:

- They can challenge the LEA contractor to provide a more wholesome meals
- They can opt out but then employ a different outside catering company to provide a food service designed to meet their own particular specifications
- They can opt out of a LEA catering contract and choose to develop their own stand alone service employing their own staff.

Clear costs and benefits arise from each approach. None of them demand more or less management time and commitment than the others.

On the up side, the further you move towards a stand alone service the more control and ownership you gain over the meals service and potentially related initiatives such as breakfast or after school clubs, a healthy tuck shop and perhaps a take home vegetable bag scheme. The more control you acquire the greater the flexibility and scope to enhance the service over time through slow but steady improvements to suit your own circumstances.

On the down side you have to choose to take a huge decision that will impose a substantial management burden on the head, the governors and the kitchen manager. To succeed it must enjoy the support of all other stakeholders and be led by a manager (usually the head) who can negotiate well and has the capacity to understand all the legal and financial requirements of the catering service. Kitchen staff in particular must be on board for the duration, willing and aware of what's required to show 'due diligence' (taking every step to ensure a safe and reliable service and being able to account for all your actions if required to by law). And any profit made in the early years should be reinvested in refurbishment or new equipment.

The time and energy required of all participants to establish and embed a new service is substantial but the excitement and shared intention can be the making of a school community in ways never previously achieved.

Explore the issues

Create a forum for discussion between the head, the school administrator, the governors and staff to clarify the reasons for investigating change and seek some consensus on the way forward. Ask why you want to change the existing arrangements and how you want to improve them.

If you are considering employing a new contractor go and visit other schools in which they operate without announcing your intention to do so. Ask the schools and kitchen staff for their opinion of the service they are getting.

Assuming you want to opt out and run your own service :

- Talk and listen to your local environmental health officer
- Talk and listen to the client/contract monitoring officer (you can retain their services for procurement if you need to)
- Talk and listen to the children. Consider using a 'food week' where you keep diaries and introduce a whole school approach to food and health education (see Sopley School, Chapter 8, page 78) before you ask them to design their ideal menus
- Talkand listen to the parents. Their anxieties and ambitions are important baselines for your strategy.

Establish what is possible – do what is realistic

- Visit a Food for Life pilot school to see what they have managed to do in the reality of a small or medium sized primary school. Alternatively invite Primary Choice (see Appendix 4, page 111) to come and discuss what your children could be eating, the role local and organic food can play on a limited budget and the basic steps for setting up the service
- Decide which way you want the meal system to go. Review how the time-table, supervision and kitchen staffing arrangements may need to change to limit queuing time and improve the atmosphere in the dining hall
- Ensure the kitchen manager works out what they want to and where they want to take the school meal service
- Prepare a budget (on a weekly time frame) remembering that salary costs are paid over the school holiday when there is no income and not forgetting to include the free school meals grant. Work out how many customers you need to break even in respect of your food and day to day staffing costs
- Prepare a business plan which includes staff costs, hardware purchase, maintenance and replacement along with health and safety inspection fees, food hygiene training, nutritional guidance and inspection fees
- Set aside a contingency to cover unforeseen circumstances, staff replacement, sick pay and so on
- Form a small group of governors to work with and or give the kitchen manager extra paid time to contact potential suppliers
- Produce a criteria list (for example see Jeanette Orrey's purchasing criteria, right) and rank it clearly to indicate that you are seeking value for money without compromising quality. Signal your interest in freshness and tight delivery requirements. Look for suppliers showing sensitivity and imagination about your day to day constraints – such as those keen to deliver when the children are not in the playground. Note also that you must use registered suppliers with high standards so that you can show due diligence if a food safety issue arises at your school
- Access training for kitchen and midday staff (for example intermediate food hygiene and beyond). The catering manager in particular will need lots of knowledge and expertise to run what will amount to an in house catering company. Invest in relevant training courses promptly
- Develop new menus and seek assistance of the community dietician to check their nutritional content against the Caroline Walker Trust guidelines (see Appendix 1, page 103)
- Consult parents and children about these menus. When finalised and being used circulate them on a weekly basis to keep children and parents informed of what is being offered
- Try to accommodate all children with special dietary needs
- Monitor what the children choose, eat and throw away
- Continue with the work to improve the service
- Consider diversifying into other services such as a morning snack, for example chopped fruit and a low salt home made oatmeal biscuit.

Jeanette Orrey's puchasing criteria

In order of importance:

- Quality
- Organic
- Food miles
- Freshness
- Taste
- Nutritional make up (for example meat percentage, fat percentage)
- Price
- Value for money
- Delivery response
- Discounts off price list
- Range of products
- Child friendly
- Quality of manufacturer (assurance and accreditation)
- Promises inspection
- Wastage.

Appendix 4
Further information

Food for Life

Soil Association, Bristol House,
40–56 Victoria Street, Bristol BS1 6BY;
T 0117 929 0661; www.foodforlifeuk.org
www.soilassociation.org/foodforlife

Published alongside this report is a Food for Life action pack, aimed at parents, heads, governors and school caterers wanting more detailed information on school meal reform. It details the Food for Life project and all six pilot schools (of which only three are featured in this report) examining what each set out to do, the costs incurred, challenges overcome, targets achieved and their plans for the future.

For all considering change, the pack looks at how a school can audit its current school meals provision, explains what schools have a right to expect, and provides information for teachers and governors about ways to work with an existing school meals provider (local authority or private sector) to improve what is offered to the children in their care.

For parents the pack suggests ways they can work with schools to improve lunch and food education provision. For governors and heads the pack looks at the issues that must be reviewed when considering whether to take a school meals service independent of the local authority or large private provider.

For schools already engaged in a process of change the pack provides information on how to build a stronger local and organic supply chain for your school kitchen, offers Food for Life recipes and menus and explains how to commission and review nutritional analysis of planned menu changes.

Local sourcing

A great deal of material is available around this subject, but the key contacts and references are as follows:

Local Food Works

Soil Association, Bristol House,
40–56 Victoria Street, Bristol BS1 6BY;
T 0117 914 2424;
www.localfoodworks.org

This partnership project between the Soil Association and the Countryside Agency exists to foster sustainable local food systems by providing local food network development support in each English region with a focus on the following areas:

- Informing sub-regional and regional strategies to include support for local food infrastructure
- Providing expertise to help develop organic and local sourcing combined with food culture education with new or existing public procurement initiatives
- Supporting and developing local food link projects and organisations
- Brokering links between existing food networks and initiatives within each region to develop stronger regional networks and collaboration.

Local Food Works has created a website with information sheets, best practice guides, case studies and research findings, together with material from local food sector bodies and organisations. This information is available free of charge and is designed to support everyone involved in developing the local food sector.

Lists and links on the website also detail other local food organisations around the UK.

The Manual for Sustainability in Public Sector Food and Catering
Available from: Sustain, 94 White Lion Street, London N1 9PF; T 020 7837 1228, E james@sustainweb.org;

A substantial manual published by East Anglia Food Links and Sustain in July 2003. This is deliberately aimed at organisations wishing to introduce better quality and more sustainable food and catering practices. It is of particular use to school caterers keen to source more local food, to schools planning to opt out to run their own school meals service or to governors and heads keen to negotiate improvements while remaining with their existing contractor. It contains a 'toolkit' covering contract issues, menu development and seasonality charts. It also provides a comprehensive directory listing further information resources of potential value to managers in charge of developing localised procurement arrangements.

Achieving Community Benefits Through Contracts
Macfarlane & Cook, The Policy Press, 2002, ISBN: 1 86134 424 4

This Joseph Rowntree Foundation publication provides detailed legislative and policy guidance, especially in relation to the European treaties and procurement directives, in relation to delivering employment, training and other community benefits.

Public Sector Procurement of Food and Drink in South West England
Available from: South West Food Link Partnership**,** 69a Sidwell Street, Exeter EX4 6PH; T 01392 666282; E info@southwestfoodlinks.org.uk

This provides guidance on other forms of public sector leverage (such as grant conditions and planning powers) that can be used to achieve community benefits.

Vegetable box scemes

Profit margins are not huge for many box schemes, but it is possible to raise limited funds for activities such as farm visits out of the delivery overheads associated with a single drop for a large group of (30 or more) regular customers, including parents and staff, across the school year.

Farmers' Choice
The 'not for profit' division of Abel & Cole. Contact Gary Congress on 020 7737 3648 or see www.abel-cole.co.uk

The Organic Directory
www.theorganicdirectory.co.uk lists independent retailers and farms that are selling directly or at local farmers' markets and through mail order.

Related organisations

Soil Association
Bristol House, 40–56 Victoria Street, Bristol BS1 6BY; T 0117 929 0661; E info@soilassociation.org; www.soilassociation.org

Plans are underway to set up a large scale organic and local public procurement programme (whole authority based) if an application for European funding is successful. This project is to provide practical support for change through the development and dissemination of detailed working models for sustainable local procurement at a local authority level in south west England, Wales, the Republic of Ireland (with links to Northern Ireland) and Brittany. Contact Lesley Kinsley, fundraising and development manager (statutory) at lkinsley@soilassociation.org

Caroline Walker Trust
PO Box 61, St Austell PL26 6LY; T 01726 844 107; www.cwt.org.uk

An organisation set up in 1988 that is dedicated to the improvement of public health through good food. Continuing the work of its namesake (a distinguished nutritionist, writer and campaigner) the Caroline Walker Trust has issued a string of expert reports to establish nutritonal guidelines for vulnerable groups. The first of these – *Nutritional Guidelines for School Meals* – published in 1992, remains the key text on this topic even though it is now out of print. More recent guidance includes *Eating Well for Looked After Children and Young People* and *Eating Well for Under Fives in Child Care* both of which contain some information relevant when considering issues to do with primary school nutrition.

East Anglia Food Links (EAFL)
49a High Street, Watton, Norfolk IP25 6AB; T 01953 889 200; E eafl@gn.apc.org; www.eafl.org.uk

EAFL works on a wide range of local food policy issues and runs a string of different practical initiatives. The organisation also offers a range of classroom materials via its website that are based around organic food and relate to the National Curriculum. These were developed with Stibbington Educational Resource Centre in Cambridgeshire and discuss where vegetables come from and the stages they go between the field and the dinner plate.

Enuresis Resource & Information Centre (ERIC)
34 Old School House, Britannia Road, Kingswood, Bristol BS15 8DB; T 0117 960 3060; E info@eric.org.uk; www.eric.org.uk; www.wateriscoolinschool.org.uk

ERIC is a medical charity that provides information, advice and support on childhood bedwetting, daytime wetting, constipation and soiling for families and health professionals. It runs the 'water is cool in school' and 'bog standard' campaigns for better water and toilet provision.

Focus on Food
Dean Clough, Halifax HX6 4LU; T 01422 383191; E lucy@design-dimension.co.uk; www.waitrose.com/focusonfood

The flagship education initiative from the Royal Society for the Arts is sponsored by Waitrose (see Chapter 10, page 93). The campaign aims to raise the profile and importance of practical food education and help secure, sustain and strengthen the position and status of food in the National Curriculum. The work focuses on cooking as the key experience in learning about the social importance of food. Joining Focus on Food entitles teachers to the *Cook School* magazine, an excellent resource with recipes, featured foods and ideas for school events. Each year there is a Focus on Food Week. This is a celebration of cooking in schools that takes place in June each year.

The Food Commission
94 White Lion Street, London N1 9PF;
T 020 7837 2250;
E enquiries@foodcomm.org.uk;
www.foodcomm.org.uk

This leading consumer watchdog on food issues is funded by public subscriptions and donations to undertake independent research into food issues. It campaigns for safer, healthier food and reports on such issues as children's food, genetically modified food, food irradiation, animal growth hormones, additives, pesticides, food labelling and advertising, as well as health issues such as functional foods, fat, sugar and salt. Published a *Children's Nutrition Action Plan* in 2001. Publishes *The Food Magazine*, quarterly, available on subscription plus a range of posters on a range of food issues, including children's food, food labelling, and food additives. Also co-ordinates and runs a website for the Parents Jury, an independent group of over 1,300 parents seeking to improve the quality of children's foods and drinks in the UK.

Health Education Trust (HET)
18 High Street, Broom, Alchester,
Warwickshire B50 4HJ; T 01789 773915;
E enquiries@health edtrust.com;
www.healthedtrust.com

HET is dedicated to initiating and supporting work with young people (children and teenagers, young adults, students and pupils) to encourage the growth of healthy lifestyles. Much of it current work is focused on whole school approaches to better food provision. Among other things, HET provides information about the rationale and value of establishing a School Nutrition Action Group and how to go about this. Their report *The Chips Are Down: A guide to food policy in schools* is a useful resource for those wishing to develop a school-based food policy.

Local Authorities' Caterers Association (LACA)
Bourne House, Horsell Park,
Woking GU21 4LY; T 01483 766777;
E admin@laca.co.uk; www.laca.co.uk

The professional body representing over 800 catering managers providing services to all local authority sectors

Local Authorities Co-ordination of Regulatory Services (LACORS)
10 Albert Embankment, London SE17 7SP;
T 020 7840 7200; www.lacors.com;
E les.bailey@lacors.gov.uk

Helps local authorities improve the quality of trading standards and food law enforcement.

National Heart Forum
164 Shaftesbury Avenue,
London WC2H 8HL; T 0207 331 7200;
E webenquiry@heartofum.org.uk;
www.heartforum.org.uk

An alliance working to reduce the risk of coronary heart disease in the UK including through improving food provision in the public sector.

Organic Networks
16 Ambrose Road, Cliftonwood,
Bristol BS8 4RJ; T 0117 925 4929.
E sbrenman@organicnetworks.org

A consultancy run by Simon Brenman, a specialist in the development of local, organic and fairly traded food supply chains to support the production of high quality food to recognised ethical, social and environmental standards.

Organix Brands plc
Knapp Mill, Mill Road, Christchurch
BH23 8EW; T 01202 479701
E lizzie@organixbrands.com;
www.babyorganix.co.uk

A campaigning, ethical children's food company established by Lizzie Vann in 1992 to raise standards in the quality of food fed to children. Ten per cent of profits are spent on researching and promoting links between food quality and child health. Recent investigative report *Carrots or Chemistry Sets?* calls for a Children's Food Bill to be put in place. Organix sells the Organix organic babyfood range and the Organix Goodies range of foods for older children.

Primary Choice
c/o St Peter's Primary School,
Kneeton Road, East Bridgford,
Nottinghamshire NG13 8PG;
E jeanetteo8@aol.com;
www.primarychoice.co.uk

A small consultancy, set up by Jeanette Orrey, catering manager of St Peter's Primary, to provide advice on how to run a devolved school meals service and provide healthy menus using organic and local supplies.

Sustain
94 White Lion Street, London N1 9PF;
T 020 7837 1228, www.sustainweb.org;
E sustain@sustainweb.org

Sustain, the alliance for better food and farming, represents over 100 national public interest organisations working at international, national, regional and local level. It advocates food and agriculture policies and practices that enhance the health and welfare of people and animals, improve the working and living environment, promote equity and enrich society and culture. It runs a range of projects relating to local sourcing and food education.

Unison
1 Mabledon Place, London, WC1H 9AJ;
T 020 7388 2366; www.unison.org.uk

Unison is Britain's biggest trade union with over 1.3 million members, many of whom work in public sector procurement and catering.

Education

A huge range of primary school materials (many of them free), are available to help teachers promote awareness on the food/health/environment agenda and various aspects of sustainable development. (see Food for Life action pack, page 109).

Soil Association
Bristol House, 40–56 Victoria Street,
Bristol BS1 6BY; T 0117 929 0661;
E info@soilassociation.org;
www.soilassociation.org/education

The Soil Association recognises that schools – under pressure to focus on core activities – need more educational materials focused upon the interrelationships between agriculture, food, health and the environment which link directly with the National Curriculum. With that in mind the following resources are available:

- *Food for Life curriculum pack*
  This pack has been developed as part of the Food for Life initiative and its aim is to help develop a 'food culture' within schools. The pack brings together many elements of food education, including farming, food production, trade, nutrition and cooking. The activities are linked closely to the National Curriculum, and provide particularly good opportunities for citizenship education within primary schools. Some schools will use the pack to organise a food week, to act as a spring board for genuine change in the way that children learn about food. Available from education@soilassociation.org or see www.soilassociation.org/foodforlife
- *Demonstration farms network*
  Details of all the farms in this network are available on the website or by ordering the leaflet 'Organic Experience' from education@soilassociation.org or see www.soilassociation.org/farmvisits
- *Farm trails online*
  'Visit' some of the farms network at www.soilassociation.org/farmtrails. Trails have been developed to teach children about topics such as animal welfare, food chains and habitats and to allow them to learn more about organic farming in general.
- *The Little Book of Organic Farming*
  This handy sized book is aimed at primary school children and their teachers. Copies cost £4.50 each and may be ordered by email from education@soilassociation.org or see www.soilassociation.org/education

Access to Farms (ATF)
E janeth@rase.org.uk;
www.farmsforteachers.org.uk

ATF is a partnership organisation that promotes farming and horticulture education through links with schools. The site directs teachers to farms equipped to host farm visits, including non-organic and some organic farms along with various farm-based 'education centres'.

British Nutrition Foundation
High Holborn House, 52–54 High Holborn, London WC1V 6RQ;
T 020 7404 6504; www.nutrition.org.uk;
E postbox@nutrition.org.uk;

The foundation provides scientifically based advice on nutrition and health related matters, much it available from the website. It produces a wide range of teaching materials, which are particularly useful for science, D&T (food) and personal, social and health education.

FACE
www.face-online.org.uk

FACE is an online signpost for teachers looking for educational materials about food, farming and the countryside.

Growing schools
DfES, Westminster Suite, Caxton House, 6–12 Tothill Street, London SW1H 9NA
E growingschools@dfes.gsi.gov.uk;
www.teachernet.gov.uk/teachingandlearning/resourcematerials/growingschools

Launched in September 2001 this DfES initiative seeks to harness the full potential of the outdoor classroom as a teaching and learning resource for delivering many facets of the taught curriculum in ways that help overcome the distance between most young people and rural life. To date it has run five flagship projects including a demonstration garden located in Eltham south east London that will be used as a resource for CPD and initial teacher training both locally and nationally.

HDRA
Ryton Organic Gardens,
Coventry CV8 3LG;
T 024 7630 3517; www.hdra.org.uk;
E enquiry@schoolsorganic.net

The HDRA has established a rapidly expanding network of schools that have set up their own organic gardens. Their website provides support and ideas, including free downloadable resources for teachers and pupils. HDRA has recently opened the Vegetable Kingdom, a new visitor centre which tells the history of vegetables in the UK, celebrates their diversity, and teaches about their role in a healthy diet. The attraction includes lots of hands-on exhibits to engage and inspire children.

Sustain
94 White Lion Street, London N1 9PF;
T 020 7837 1228, E kate@sustainweb.org
www.grab5.com

Sustain's 'Grab 5' curriculum pack and action pack are available to download free from the internet, and provide a wealth of imaginative and engaging ideas for encouraging children to eat their five portions of fruit and vegetables a day. The pack also contains links with many other useful organisations.

Unison
1 Mabledon Place, London, WC1H 9AJ;
T 0207 7388 2366; www.unison.org.uk

For Unison's education services unit contact Christine Lewis, national education officer, on 0845 3550845.

Wired for Health
www.wiredforhealth.gov.uk

Wired for Health is a joint initiative of the Department of Health and the Department for Education and Skills. Health information is provided that relates to the National Curriculum and the National Healthy School Standard. It links to Wired for Health websites for children: www.welltown.gov.uk for key stage one and www.galaxy-h.gov.uk for key stage two.

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Food for Life

Food for Life is a practical campaign established to raise the quality of primary school meal provision within the local authority system or without, in school clusters or individual schools. Food for Life schools work towards a series of targets designed to improve nutrition, reduce the amount of pollution in the school diet and raise awareness and appreciation of good food through menu reform, localised sourcing and creative food education.

Soil Association

The Soil Association is an independent membership charity and one of the UK's most respected environmental groups, playing a crucial role in the transformation of attitudes to food and farming in the UK and internationally.

Working with the public, farmers, food processors, retailers and policy makers, it aims to bring about change by highlighting the relationship between a healthy, living soil and the well-being of plants, animals, people and the environment. It promotes and supports organic food and farming as a sustainable alternative to intensive agriculture through a wide range of activities:

- *Awareness raising and education*
  Through the media, policy reports and other publications, events, curriculum-linked schools materials and a network of 40 organic farms open to the public
- *Lobbying for change*
  Liaising with government and non-government organisations to improve the policy climate for organic agriculture
- *Promoting local food*
  Supporting initiatives such as box schemes, farmers' markets, co-operatives and community supported agriculture
- *Transforming food provision in schools and hospitals*
  Establishing healthy, local and organic food schemes in partnership with public institutions, to improve public health
- *Advice and representation*
  Supporting farmers and other organic businesses
- *Safeguarding integrity*
  Leading the field in setting and developing the rigorous standards that underpin the trusted Soil Association symbol on organic products
- *Inspection and certification*
  Soil Association Certification Limited, the Soil Association's not-for-profit subsidiary, is the UK's largest organic certification body.

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Soil Association
Bristol House
40–56 Victoria Street
Bristol BS1 6BY

T 0117 929 0661
F 0117 925 2504
E info@soilassociation.org

www.soilassociation.org

Soil Association Scotland
Tower Mains
18 Liberton Brae
Edinburgh EH16 6EA

T 0131 666 2474
E contact@sascotland.org

www.soilassociationscotland.org

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