

Food in schools

Encouraging healthier eating

New interim standards for food in schools came into force in September 2006. Our survey aimed to evaluate the progress schools were making in meeting the new standards and to identify the strategies they were using to help pupils and families understand healthy eating.

This report considers a range of food-related issues, including the new food standards, the quality of dining areas, the take-up of school meals, and pupils' understanding of food and healthy eating.

Age group: 4–18

Published: October 2007

Reference no: 070016

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Reference no. 070016

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Executive summary

This survey aimed to evaluate the progress schools are making in meeting the new food standards and identify successful strategies they were using to help pupils and their families understand healthy eating. The report considers a range of food-related issues, including the new food standards, the quality of dining areas, the take-up of school meals, and pupils' understanding of food and healthy eating.

Inspections were conducted during 2006/07 by Her Majesty's Inspectors (HMI) who visited 18 primary/middle schools and nine secondary schools in 12 local authorities. The schools were selected to represent small clusters within authorities that made different types of provision for school meals. Information from two Ofsted survey reports on personal, social and health education, and from school inspections conducted since 2005, provided additional evidence.

In March 2005, the Department for Education and Skills (DfES) announced a number of measures to improve food in schools.¹ The School Meals Review Panel (SMRP) was established and the DfES produced draft guidance on procuring a school meals service.² The work of the School Meals Review Panel led to new interim standards for food in schools, which came into force in September 2006. An additional development was the setting up of the School Food Trust (SFT) to advise ministers on standards for school food other than lunch.

In all the schools visited in the course of this survey the food provided met the new interim food standards. The 'best' food according to pupils, and that which exceeded the standards, was prepared on site, although not all schools had appropriate facilities. Several of the headteachers saw school meals as the responsibility of the local authority and therefore did not involve themselves sufficiently in decision making. However, there were also examples of very effective joint working between schools and local authorities. Headteachers' views on school meals and the priority they gave to healthy eating influenced the quality of provision.

The survey found a range of provision, reflecting recent initiatives, not all of them food-related. For instance, all the schools visited had identified pupils who did not have breakfast and many schools organised breakfast clubs. In some schools, such provision was linked to additional support for literacy and numeracy.

The take-up of school meals has fallen overall since the introduction of the new food standards. The number of pupils eating school lunches had fallen in 19 of the 27 schools visited for this survey. Reasons for this decline are complex and include lack

¹ On 28 June 2007 the Department for Education and Skills became the Department for Children, Schools and Families and the Department for Innovation, Universities and Skills.

² For Government policy on food and drink in schools, including the new nutritional standards, see www.teachernet.gov.uk/wholeschool/healthyliving/schoolfoodanddrink.

of consultation with pupils and parents about the new arrangements in schools; poor marketing of the new menus; the high costs for low income families who are not eligible for free school meals; and a lack of choice in what is offered. In several instances, the visibility of the payment methods meant that pupils who were entitled to free school meals were deterred from taking them. Dining areas varied in quality and were better in primary than in secondary schools. They influenced the take-up of school meals, since pupils wanted short lunchtime queues which allowed time for extra-curricular activities and the opportunity to eat with friends who brought packed lunches. Primary schools were more likely than secondary schools to see lunchtimes as an important route to developing pupils' social skills.

Most pupils in the schools visited had a good understanding of what constituted healthy eating through food technology lessons and other subjects, notably personal, social and health education, physical education and science. In too many instances, however, pupils' knowledge had little bearing on the food they chose.

This report provides examples of specific strategies used by the schools visited, including cashless catering systems, reviews of pupils' diets and cross-curricular approaches to developing understanding about healthy eating. We make recommendations for schools, particularly about school meals and dining areas, partnerships with families, and the role of the curriculum in giving children and young people both practical experience of preparing food and consistent messages about healthy eating.

Key findings

- The meals served to pupils met the interim food standards in all the schools in the survey. Most of them cooked meals on site from fresh ingredients, except where they did not have a kitchen and relied on microwave cooking or reheating food prepared elsewhere.
- The number of pupils eating school meals had fallen in the majority of schools visited. The reasons included cost; a lack of choice; lack of consultation with pupils over the content of menus; pupils' unfamiliarity with some of the food; and poor marketing.
- Most of the pupils in the survey schools had a good understanding of healthy eating but too often this had little bearing on the food they chose.
- Pupils entitled to free school meals were sometimes deterred from taking them because paying for them singled them out.
- The quality of dining areas was important in determining whether pupils ate school meals. They were more likely to eat them when queues were short, they could sit with friends who brought packed lunches, and the arrangements allowed enough time for extra-curricular activities.
- Cross-curricular approaches were very effective in reinforcing and broadening pupils' learning, especially in primary schools, although limited facilities restricted the practical food-related activities pupils could do.

- Schools had the most impact on encouraging healthy choices when close partnerships existed between staff, pupils and their families, and where senior managers gave a high profile to this work. The primary schools visited had been more active than the secondary schools in supporting pupils and their families.

Recommendations

Schools should:

- monitor the take-up of school lunches
- identify the factors which discourage pupils from taking school lunches and work to eliminate them
- ensure that the cost of school meals and the methods for paying for them do not discourage children from low income families, or those entitled to free school meals, from eating them
- work closely and sensitively with families to advise them on how to provide healthy packed lunches
- ensure that dining areas are attractive and well organised and that school lunchtimes contribute to pupils' social development
- allow enough time for lunch, especially in secondary schools
- provide consistent messages on healthy eating across the curriculum
- give pupils practical experience of preparing food and learning about healthy eating through activities within and beyond the formal curriculum
- involve pupils closely in developing school menus and in exploring a wider range of food.

The interim food-based standards

1. The work of the School Meals Review Panel led to the new interim food-based standards which came into force for all schools in September 2006. The 2006 standards are intended to ensure that school lunches provide pupils with a healthy diet.³ A summary of the standards is provided in Annex B. All the schools in the survey were inspected against these.
2. Funding from the Department for Children, Schools and Families for three years from 2008/09 will be focused on meeting the costs of school lunches. Additional capital funding for building school kitchens will also be available for local authorities that have the greatest need and cannot otherwise afford them from existing capital resources.
3. Since September 2005, school inspections have judged the extent to which schools encourage pupils to adopt healthy lifestyles. Most reports do make a comment about how the school encourages healthy eating, but not necessarily about the quality of the school meals provided.

Meeting the new interim standards

4. All the schools visited for the survey met the new interim food standards for lunches. All pupils had their special dietary needs met and those with food allergies were catered for appropriately. In the best instances, pupils' ethnic backgrounds and cultures were taken into account. Not all the schools with Muslim pupils provided halal meat daily. Where it was not available, however, some cooks used a vegetarian meat substitute to give a similar food choice.
5. All schools provided meals from fresh seasonal ingredients. The best food was provided in those schools with experienced, well qualified and appropriately trained cooks. They were effective managers, took great pride in their work, understood the new interim standards well and used this knowledge effectively to serve a wide range of interesting meals that conformed to the standards.
6. Food which was cooked on the school site tended to be well presented and appetising. However, not all schools had the appropriate facilities. Food prepared off site tended to look unattractive and, in several cases, was cold by the time the pupils ate it. In one newly built school, the focus on creating larger teaching spaces meant that the size of the kitchen was so reduced that it could be used only to reheat pre-prepared meals using microwave ovens. In this case, fresh ingredients were limited to fruit and salad dishes. In another new school, however, the headteacher had insisted, from the planning stage, on a full kitchen so that all meals could be cooked

³ The Government is introducing new regulations that will update the 2006 interim food standards. From September 2007, these new standards will apply to non-lunch as well as lunch provision.

on site. He and the rest of the teaching staff held the work of the cook in very high regard, a confidence that was amply borne out by the quality of the food and the standard of presentation, which matched that of a professional restaurant.

7. The views and attitudes of headteachers had an impact on the quality of catering. Three headteachers saw school meals as the responsibility of the local authority. Although they were critical of what was provided, they did not take the opportunity to influence decisions on the content and range of meals or on the organisation of serving and dining areas. Consequently, they missed an opportunity to develop lunchtime as a way of promoting and reinforcing social skills and healthy living. However, there were instances where schools and the local authority worked very effectively together and in these schools take-up of school meals tended to be higher:

Local authority officers recognised the skills of the cook in one school. They worked with her to provide a flexible service where the authority sourced and monitored ingredients but allowed the cook to develop her own menus that reflected the tastes and the ethnic mix of the pupils. This had increased the take-up of meals and reduced waste.

8. In all the schools visited, menus were planned in advance, in cycles of between three and six weeks.⁴ All the schools ensured that pupils and their families saw menus in advance; some sent them out with the regular school newsletter. Frequently, menus were displayed in the canteen, but not always in a position to allow pupils the time to consider what they wanted to eat. In the best examples, cooks tried to reflect pupils' preferences and changed the set menu to reflect both pupils' tastes and the food-based standards. In these eight schools, waste was reduced and the numbers taking school lunches were maintained or improved.

9. All the schools visited used themed days to promote the canteen. In one secondary school, the catering staff worked regularly with the modern languages department to plan and produce menus from a range of countries. On the whole, primary schools were more active and imaginative in encouraging pupils to sample new foods and make healthy choices. In one primary school, the cook made a concerted effort to broaden pupils' tastes by introducing several new dishes and unfamiliar ingredients into each menu cycle. Another primary school had increased the consumption of vegetables by giving pupils free raw vegetable sticks while they queued for their lunch.

⁴ The School Food Trust recommends a three to four week cycle. The nutrient-based standards, which will come into force in September 2008 for primary schools and from 2009 for secondary schools, special schools and pupil referral units, are based on the shorter cycle and should make it easier for menus to meet some of the required nutrient amounts.

Standards of packed lunches

10. All the primary schools in the survey gave advice to parents on packed lunches but only three of the secondary schools did so. Where advice was provided, more pupils ate healthy lunches than before and pupils were able to explain how they were part of their balanced diet.⁵ Primary and secondary schools used school nurses effectively to advise pupils, parents and carers on healthy choices. In the secondary schools, pupils brought in healthy packed lunches when they and their families recognised their importance. In two of the secondary schools visited, packed lunches had improved because pupils had discussed their learning of healthy options at home and had influenced the views of their parents/carers. Some secondary pupils said they varied the contents of their lunch boxes each day. Others tended to keep to the same food each day. Many said that, because they ate a hot evening meal, they did not worry about what they ate at lunchtime.

Breakfast clubs, tuck shops and vending machines

11. Over the last few years, as well as providing lunch, schools have increasingly made food available through other means, particularly breakfast clubs and tuck shops.

12. All the schools visited had identified pupils who did not have breakfast at home and many had set up breakfast clubs to compensate.

In one primary school, staff had recognised that, as the morning progressed, a significant minority of pupils lost concentration. Further investigation showed that many of this group had had little to drink or eat before leaving for school. As a first step, a breakfast club was established and operated by some of the teachers, together with the catering team. Most days they provided breakfast for about a third of the children. The headteacher invited parents to bring their children into the school, giving staff a chance to chat to them and invite them also to take breakfast. In this way, they were beginning to help some parents understand the importance of breakfast and, in some cases, changing the way in which they started the day.

13. In the best instances, schools coupled providing breakfast with other support for pupils, such as extra literacy and numeracy sessions at the beginning of the day.

14. The breakfast clubs provided a range of healthy foods. In one primary school, the 'nurture group' provided a wide choice of healthy options for breakfast, including porridge, fresh fruit salad, a variety of healthy breakfast cereals and milk and juice.

⁵ 'Balanced diet' is defined in government guidance, for example: www.eatwell.gov.uk/healthydiet/eighttipssection/8tips/

All pupils interviewed at this school liked having breakfast, some saying that it saved them time in the mornings. In the best instances, schools reported that the breakfast club had been a successful first step in engaging pupils with making healthy choices.

15. Too many of the schools visited did not make the importance of breakfast sufficiently clear to pupils and their families. Where it was known that pupils ate snacks on the way to school, staff did not challenge this alternative to breakfast sufficiently. But some schools had recognised the consequences for pupils' behaviour when they had had unsuitable food and drink before school.

A specialist sports college conducted an interesting study of how diet affected their pupils' behaviour. The catering manager provided an analysis of all the food consumed in the college over a term. A target group of pupils was encouraged to keep a food diary and each pupil's food intake was analysed. The school compared the results with their records of the pupils' behaviour over a term. A correlation was found between poor behaviour and a diet consisting of a large amount of processed foods. Discussion with parents led to a change to a healthier diet and the school reported that pupils' behaviour improved.

16. Not all the schools visited were able to arrange a breakfast club, often because pupils travelled to school by bus and did not arrive early enough to make it possible. In these cases, the tuck shop was often used to ensure that all pupils had appropriate food during the morning.

Tuck shops

17. All the tuck shops seen during the survey provided healthy snacks. In primary schools, the tuck shops tended to provide a different range of food from that available at lunch time. In secondary schools, however, the range tended to be wider, with the choices overlapping those available at lunchtime. There were two main reasons for this. First, the schools had recognised that, to avoid queuing later in the day and to enable them to take part in extra-curricular activities, many pupils bought food for lunch during their morning break. Second, this more flexible arrangement provided increased revenue for the canteen which safeguarded jobs.

18. Primary schools were also aware of the financial implications of provision. One school, which had particularly good inclusive practices, had involved the pupils in deciding what charges to make for snacks. This ensured that no child was prevented from taking advantage of what was offered because the price was too high.

Vending machines

19. When the local management of schools was established in the 1990s, many schools introduced vending machines. Since these were driven by marketing pressures rather than health considerations, they provided a range of sugary and salted snacks or branded drinks and were much vaunted by their suppliers as an

ideal way for a school to supplement its income. One of the clearest indicators of the impact of the new food standards and the focus on healthy living was the absence of vending machines. In the large majority of the schools visited, they had either been removed or were awaiting removal. Some schools with sixth forms regarded vending machines as part of the 'perks' provided for senior pupils and argued that they should not interfere with their pupils' rights of choice. In these schools, students still had access to food which was not necessarily healthy but, in most cases, healthier options were being researched which would be in keeping with the overall policies on food.

Barriers to healthy eating

20. One of the important findings of the survey was that, in 19 of all the schools visited, headteachers reported that the number of pupils taking a school meal had fallen since the new standards were introduced. This finding reflects that of the Better Regulation Commission, which reported that stakeholders had found that the take-up of school meals in secondary schools had decreased.⁶ Local reductions ranged from 9% to 25%. The reasons why pupils choose not to eat at school need to be taken seriously, especially if the current strategies are to have a positive impact on the most vulnerable.

21. One reason for the decline in uptake in the schools in this survey was summed up clearly by a child who said: 'I like school meals but my mum says I can't have them because they cost too much.' Several of the headteachers also believed that the cost of a meal was prohibitive. They felt that parents did not believe their children would eat all the healthier meals, and that it would be wasting their money to pay for food that was not eaten. Discussions with schools showed that this was often a particular problem for low income families who were not eligible for free school meals. The cost of ingredients for packed lunches could usually be absorbed into the weekly shopping allowance. However, having to pay lunch money in one go created a substantial hole in a family's weekly budget. Therefore these families tended not to buy school meals, relying on packed lunches instead, the quality of which was sometimes poor. It is difficult to assess whether costs have risen directly as a result of the new food standards because costs rise annually and vary considerably across different local authorities.

22. If this trend continues, the impact of the Government's food policies will have limited effect. This will be particularly the case for children from more vulnerable families.

23. At times, the best efforts of schools to encourage healthy eating backfired. In one authority visited, the schools' canteens provided a 'full meal only' policy. Pupils

⁶ The Commission's paper *Government standards for schools food*, published in April 2007, can be found at: www.brc.gov.uk/upload/assets/www.brc.gov.uk/spotlight_paper_school.pdf

had to pay for a main course and a pudding and were unable to choose different components. Therefore, if a child did not like part of the balanced meal, it was left and what was eaten was no longer balanced. This had led to a large fall in the number of pupils taking a school meal.

24. Pupils' involvement in making decisions about the types of food offered was also important in determining whether or not they chose a school meal. Consultation tended to be lower in the secondary schools visited than in the primary schools, and this contributed to a higher proportion of pupils deciding against a school meal.

25. In only a third of the secondary schools visited were pupils encouraged to make healthy choices at meal times. Even when pupils could explain clearly what constituted a healthy, balanced meal, they did not necessarily choose a healthy option. Instead they made choices based on a range of factors which included whether the food provided 'value for money', the time taken in queuing and eating, competing activities and what their friends were doing. Pupils frequently said that the portions were small and left them still feeling hungry. They also found the lunch break too short to enable them to eat a meal comfortably and socialise with friends. Consequently they preferred to bring sandwiches which could be eaten quickly where and when they chose. Although these factors may have been an issue before the introduction of the new standards, if they are not addressed the take-up of school meals will not increase and the impact of the new standards will continue to be minimal.

Free school meals

26. From 6 April 2007, children whose parents receive: Income Support; Income-based Jobseekers Allowance; support under part VI of the Immigration and Asylum Act 1999; Child Tax Credit (provided they are not entitled to Working Tax Credit) and have an annual income that does not exceed £14,495 (as assessed by Her Majesty's Revenue and Customs); or the Guarantee element of State Pension Credit, are entitled to receive free school meals. Children who receive Income Support or Income-based Job Seekers Allowance in their own right are also entitled to free school meals. There is long-standing evidence that the number of families who are entitled to free schools meals is higher than the number who take up the entitlement. The reasons for this are complicated and include a reluctance to be identified as needing such support.

27. In several instances in this survey, pupils, particularly at secondary schools, avoided taking a free school meal because they did not wish their peers to identify them as eligible. The extent of the problem depended on the methods of payment the school used. In one school, most pupils paid for their meals over the counter whilst those entitled to a free school meal were issued with a card which they put into a slot machine to record that they had received a meal. Although this was an efficient management tool, it contributed to fewer pupils taking up their entitlement.

With a little imagination, the system could have been transformed into one which benefited all pupils, as illustrated in another secondary school.

This school used a cashless system where all pupils were issued with a card with their personal pin number. Parents who paid for meals determined the allowance per meal and settled the bill at the end of the month. Children entitled to a school meal had an allowance but their parents did not pay. All parents received a detailed record of what their children had eaten during the month. All parents, regardless of whether they paid for a meal or not, could identify food they did not wish their children to eat and an electronic block was put on this. This system was very popular with staff and pupils and take-up of meals was high. It ensured that children's food intake was controlled and monitored and removed any stigma attached to receiving a free school meal. It had resulted in a dramatic reduction in bullying and also to the virtual eradication of theft because pupils no longer needed to bring money with them to school.

28. Pupils in other schools which operated a similar system also reported how they felt safer not having to carry money to school. An additional advantage was that they were not tempted to spend the money on alternatives, such as unhealthy snacks on the way to school.

The quality of dining provision

29. The quality of the dining hall was an important factor in determining whether pupils chose to eat a school meal. This varied considerably in the schools in the survey and the quality was good or better in only five of the schools visited, all of them primaries.

30. Irrespective of whether the school had a dedicated dining room, the best areas where pupils ate were attractively decorated with vibrant displays, including information on how to eat healthily. The food was beautifully presented, making it attractive to pupils. Menus were displayed so that everybody could see clearly what was available and had enough time to make a considered choice about what to eat.

31. In the best schools, thought and care had gone into establishing efficient routines. Successive sittings and rota systems ensured that queuing was minimised and there was no overcrowding. Younger pupils, or those participating in clubs and sporting activities, were given priority in the queues and the cooks ensured that those on later sittings were still offered a full choice. There was sufficient room, so that those taking a school lunch could sit with friends who had brought packed lunches. Pay-in-advance schemes removed the complication of money changing hands and queues moved quickly.

32. Three of the primary schools visited reported that the skills of younger pupils were poorly developed: they could not manage a knife and fork or make

conversation during a meal. In the best instances, schools recognised the contribution that a good dining experience could make. In these cases, teaching staff often ate in the dining room with the pupils and the atmosphere was warm and friendly, with sufficient time for all to eat their lunch comfortably and to enjoy socialising.

33. The number of catering and supervisory staff, and the extent to which they had been trained, had an impact on the quality of the dining experience. In the best instances, well trained staff showed the children how to hold their cutlery and to eat properly and helped them choose their food. As a result, the children tended to make healthy choices, behaved well and there was minimal mess and waste.

In one primary school, the learning assistant was also the lunchtime supervisor. She was working with the teaching staff on the Healthy Schools programme and was also actively involved in the local authority's network. She had introduced the notion of a 'best table' award. In order to qualify for this, pupils had to behave well, eat all their food, keep their table clean, respect each other and hold civilised conversations while having their lunch. The reward consisted of a large soft toy in the shape of a giant tomato which was placed on the winning table for the week. The pupils were highly enthusiastic about this scheme and very keen to win the tomato. The headteacher reported that the impact on behaviour was noticeable. In the past, behaviour had been very boisterous and the volume of noise very high. Now, as the inspector witnessed, the pupils monitored the noise level for themselves without the staff having to remind them. This was a school which did not have a dedicated dining hall and where the food had to be prepared off-site. Despite the challenges posed by these factors, the imaginative approach taken by staff had led to the creation of a dining experience which was a very pleasant and worthwhile social occasion.

34. In none of the secondary schools visited were dining arrangements good. Where provision was unsatisfactory, the biggest problem was poor organisation. Small dining areas with only one sitting for lunch and no rota arrangements led to overcrowding, excessive queuing and considerable noise. Very few teachers ate with the pupils, and pupils eating school lunches could not sit with friends who brought packed lunches. There were no special arrangements for pupils who wanted to participate in lunchtime activities, so many of these pupils chose not to have school meals.

35. In the worst examples, pupils were not able to see the menus in advance and therefore had to make up their minds at the counter. This caused delays and lengthened queues. It also led to some pupils making snap decisions about what to eat, without considering whether they were choosing a healthy combination. Lack of proper management of the dining area meant that all dining staff were involved in serving and clearing away plates, with the result that they were not able to help the

pupils choose food or develop good eating habits. Insufficient training meant that, even when help was available, it was not always of a satisfactory standard. In one school, the supervisor was inappropriately insistent when a pupil was reluctant to eat his food. More food was wasted where adults' involvement with pupils was limited. In one school, poor deployment and monitoring of staff meant that tables were not cleaned properly. One of the greatest weaknesses in secondary schools was the very short amount of time allowed for the lunch time break. This meant that pupils had to be hurried through the canteen at great speed, with no opportunity for them to develop their social skills.

Teaching about healthy eating

Teaching and the curriculum

36. Schools use a variety of ways to promote healthy eating, both within and beyond the formal curriculum. In schools where there was effective practice in promoting healthy eating the numbers of pupils taking a school meal were higher than in other schools in the survey.

37. One of the most direct means of promoting healthy eating is through food technology lessons where pupils are actively involved in planning menus and preparing and presenting food. In general, the primary schools visited did not have a dedicated area for food handling and preparation and this inevitably limited the range of activities. Despite such constraints, however, five of these schools provided pupils with regular opportunities to extend their understanding in a practical way.

Pupils in the Reception class in a primary school were involved in comparing the taste of different types of yogurt. They discussed their preferences and used their ideas as the basis for work in literacy. In the Year 4 class in the same school, pupils were comparing and contrasting the benefits of different varieties of bread. This included making their own samples. The pupils adopted very good hygiene practices and the practical experience did much to reinforce their understanding of healthy eating and healthy lifestyles.

38. Secondary schools had a wider and better range of equipment and resources and were therefore able to provide their pupils with richer experiences. In four of the secondary schools visited, the food technology curriculum was particularly good. In one outstanding case, the school had developed very successful vocational courses.

The school had converted a classroom into a smart, professional, contemporary restaurant which belied its origins. The pupils in Years 10 and 11 worked under the guidance of their food technology teacher and a professional chef to produce high quality, imaginative menus of fresh seasonal food. This was prepared during the day and served in the evening when pupils practised waiting on, to silver service standard. Parents and local employers were very supportive of these developments

and all pupils at the school were able to follow an accredited food-related BTEC course.

39. One of the secondary schools visited had established good connections between work in food technology and work in physical education (PE).

The boys had asked to begin their PE lessons with a short cross country run. They monitored their performance and regularly set themselves new goals to improve their performance. Through discussing their progress with teachers and others, they had become aware of the potential impact of diet on their performance. The food technology department decided to build on this interest to extend the boys' understanding further through involving them in planning and preparing healthy dishes.

40. In one school with specialist language status, the modern foreign languages department periodically devoted a whole week to work on a particular country. As a regular part of this, the canteen staff collaborated with the teachers and pupils to provide menus, presented in the appropriate language, and produce dishes which were representative of the country and also met healthy eating standards. These weeks proved very popular and resulted in a much higher uptake of school meals, in one school to 60 per cent, and clearly contributed a great deal to pupils' knowledge and understanding.

41. Developing understanding through more than one subject area was also seen in primary schools.

In several instances, inspectors observed literacy lessons where pupils were increasing their precision in writing by producing a set of instructions for preparing a dish. In others, work on food within science lessons was linked to the tending of a school garden where pupils grew a range of products which they then prepared and cooked for themselves. These included vegetables with which many of the children were unfamiliar, such as courgettes, different varieties of lettuce, garlic, broccoli and mange tout. Discussions showed that the opportunities for practical involvement had brought the subject to life for these children, extended their interest and also their experience of eating a wider range of food.

42. In four primary schools and two secondary schools, adopting a cross-curricular approach had been very effective in reinforcing consistent messages and giving pupils a breadth of understanding. However, this was not always the case. In a minority of schools, for example, the model used to teach about balanced diets in science was different from that used in food technology. Science lessons used the food pyramid model. Teachers were referring to this incorrectly. The practice

recommended by the DfES (now the Department for Children, Families and Schools) is to refer to the 'balance of good health' plate model.⁷ In the food pyramid, food that should be eaten least often is indicated at the top of the pyramid and food that should be eaten most is indicated at the bottom. In creating a balanced diet, therefore, a greater focus should be placed on foods which appear further down the pyramid. Discussions with pupils revealed considerable confusion. Many assumed that the higher the position of the food on the pyramid, the more it should be eaten. Some teachers were also unclear about how to interpret the model. The confusion tended to be greatest where pupils also encountered the 'balance of good health' plate model in food technology lessons. This model depicts a dinner plate divided into segments of differing sizes to indicate the relative proportions of food groups required to produce a balanced meal. Using both approaches did not help pupils make the cross-curricular connections for which the schools were aiming.

43. Inspectors also identified other confusions. The World Health Organisation recommended in 2003 that everyone should eat at least five portions of fruit and vegetables per day.⁸ This was specifically not to include potatoes, as these are starchy foods. However, in their work on salad preparation, some schools misinterpreted information in the published design and technology schemes which they were using, where potatoes were classified within the fruit and vegetable group. It was evident that this confused pupils about what the 'five a day' provision should include.

44. A crucial element in ensuring consistency across the curriculum was the quality of coordination. Primary schools were generally more consistent in their messages about healthy eating across the curriculum. This was partly because of their size but, more especially, because the same teacher would often present several areas of the curriculum to the same class.

In five of the primary schools, where the curriculum was particularly good, improvements had been driven by work conducted in relation to the National Healthy Schools programme. Coordinators had been appointed who had a clear overview of their school's provision for developing pupils' understanding of health issues. Good links were made across subjects. This ensured that science, food technology, physical education, and personal, social and health education used common terminology so that pupils understood how work in one subject on healthy eating related to work in another.

⁷ Further information on using the UK eight tips for healthy diet and 'Balance of good health' plate model is available at: www.food.gov.uk/multimedia/pdfs/bghbooklet.pdf

⁸ For further information on the World Health Organisation's Fruit and Vegetable Promotion Initiative see www.who.int/dietphysicalactivity/fruit/en/index.html

The impact of teaching on pupils' choices

45. In 15 of the 18 primary schools visited, pupils had a good understanding of what constituted healthy eating. However, in the remaining three, pupils were not able to integrate what they had learnt in different areas of the curriculum into a coherent picture of healthy eating.

46. More than two thirds of the secondary pupils interviewed had a good understanding of what constituted healthy foods and the importance of a healthy diet. However, in many schools this message had not been reinforced sufficiently.

47. In the secondary schools visited, there were too many instances where what had been learned did not have an impact on the choices pupils made. This tended to be worse when there were alternative sources for buying food near the school and when school canteens did not advertise. One teenager said to inspectors: 'This school doesn't do enough to market the canteen.' Another quipped that he had become far fitter as a result of regular walks to the nearby chip shop.

48. In secondary schools, pupils were not routinely given opportunities to apply what they knew about healthy eating when making food choices. The lack of interaction between lunchtime assistants and catering staff on the one hand and pupils on the other meant that pupils were not challenged when they made inappropriate choices. However, when pupils and catering staff worked together on planning meals, the situation was considerably better.

A secondary school shared a campus with a primary and a special school. The single kitchen provided all lunches and snack meals. Each of the three schools had a food user group through which the catering manager consulted pupils. New menus were trialled and pupils' feedback helped to shape the final provision. Consequently, the number of lunches served had increased and better matching of provision to pupils' needs led to minimal waste.

49. A similar picture was evident in a primary school:

The school made good use of 'circle time' discussions to help extend and reinforce pupils' understanding. As they progressed through Key Stage 1, pupils were encouraged to develop and practise the skills necessary to make healthy choices. Good hygiene practices were also developed from the nursery onwards. All children washed their hands before handling food and washed fruit before they ate it. All teaching and non-teaching staff played a clear part in reinforcing the same messages. By the end of Key Stage 1, pupils were beginning to make connections between aspects of healthy lifestyles covered in different parts of their work and were applying this understanding to choosing food at lunchtimes.

50. The importance of partnership was also evident in other ways:

A parent and a school governor who was a dietician worked with the pupils in a primary school to devise a 'top grub' card game to teach healthy eating. This was supported by Health Enterprise East.⁹ An international sprinter was invited to the school for the launch of the game and to promote healthy lifestyles. This collaborative initiative had again helped to improve the quality of the choices made by pupils.

51. One of the most crucial partnerships influencing the food choices made by children was that between the school and the home. Approximately half of the schools visited were beginning to work with families on developing a common approach to healthy eating. In the best instances, headteachers and staff were very sensitive to the views and individual circumstances of families and were working to create a climate of cooperation.

A primary school's general newsletter had recently included information and ideas on how to prepare a healthy packed lunch. The headteacher and lunch time staff monitored the content of packed lunches and the headteacher met parents if there were any concerns about any child's diet. This was done in a very low key way which ensured that parents did not misinterpret or take offence at the school's actions.

52. Other schools took a different but equally successful approach to working with pupils and their families:

The pack of information for new parents and pupils for a specialist college included illustrations of the range of healthy foods offered. On curriculum consultation days, it provided a range of healthy foods and drinks for parents, carers and pupils to sample. The catering manager also used such occasions to talk about the importance of providing healthy food in college and beyond.

53. The most successful work occurred where provision was integrated and coordinated and where every member of staff in the school saw it as their role to contribute to developing the well-being of the child, working with pupils and their families. A climate of partnership and mutual respect is illustrated in the following examples.

A secondary school had identified a group of high performing Year 10 girls who smoked and were involved in substance abuse. None of these pupils ate anything during the day, other than a light meal in the evening. It became apparent that one of the main reasons for this was that they

⁹ Health Enterprise East is part of the National Health Service's 'innovation hub' for the east of England (Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk).

wanted to remain slim. At the time of the visit, the school counsellor and school nurse were beginning to work with the parents to alert them to the potential problems faced by their daughters and to help bring about a change in their behaviour. This was being done in a very sensitive way to ensure that parents were not overly alarmed and that pupils saw the support and advice being offered in a positive light.

In a primary school, the coordinator for personal, social and health education led the healthy schools provision. She had been trained to carry out this role and was clear about what it involved. The senior leadership team was supportive, understood the importance of improving the health of pupils and had already worked effectively with the catering staff to improve the dining experience. The catering manager monitored the take-up of meals and used this information to tailor menus. The school knew its pupils well and ensured that all pupils ate at lunchtime. Parents of pupils who took packed lunches to school knew how much their child had eaten. A link governor was appointed to oversee the developments in healthy eating. Plans were in place for the school council to monitor healthy eating. The pupils were listened to and, as a result, pupils now had water bottles and music in the dining room. All staff, including catering staff, had a clear entitlement to professional development and all had been trained in the social and emotional aspects of learning (SEAL) methodology.¹⁰ Take-up was higher than in other schools surveyed.

¹⁰ *Social and emotional aspects of learning...improving behaviour...improving learning* (DfES 0110-2005G), DfES, 2005. This resource aims to develop the underpinning qualities and skills that help promote positive behaviour and effective learning. It focuses on five social and emotional aspects of learning: self-awareness, managing feelings, motivation, empathy and social skills.

Notes

The survey was conducted by four of Her Majesty's Inspectors (HMI) who visited 18 primary/middle schools and nine secondary schools in 12 local authorities in 2006/07. Clusters of primary and secondary schools were visited within authorities that made different types of provision for school meals.

Ofsted conducted an earlier pilot survey in preparation for the introduction of the new standards, the report of which was published in 2006. At that time, primary and secondary schools in three local authorities were inspected by HMI, accompanied by nutritionists appointed by the Food Standards Agency. The report, *Healthy eating in schools*, assessed the quality of school meal provision and education provided about healthy eating.¹¹ It provided a baseline against which to test the impact of the new interim food-based standards which came into force for all schools from September 2006.

The current survey aimed to evaluate the progress being made by a small sample of schools in implementing the new interim standards and to identify the strategies schools used to help pupils and their families understand and apply the principles of healthy eating. It examined provision within and beyond the formal curriculum.

The survey also drew on evidence from the 6,000 school inspections conducted since September 2005, when the new framework for the inspection of schools was introduced, and from *Healthy schools, healthy children?*, an Ofsted report published in 2006.¹²

¹¹ *Healthy eating in schools* (HMI 2625), Ofsted, 2006. Available from www.ofsted.gov.uk/publications/2625.

¹² *Healthy schools, healthy children?* (HMI 2563), Ofsted, 2006. Available from www.ofsted.gov.uk/publications/2563.

Further information

Publications

Choosing Health (Cm 6374), Department of Health, 2004.

This White Paper sets out the key principles for supporting the public in making more informed choices about their health.

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4094550

Websites

Guidance on setting up food partnerships:

www.teachernet.gov.uk

Nutritional guidance and support materials of teaching food technology and cookery from the British Nutrition Foundation:

www.nutrition.org.uk

Organisations and schemes

Schools Fruit and Vegetable Scheme

The 'Schools Fruit and Vegetable Scheme' is part of the 'five a day' programme to increase fruit and vegetable consumption. Under this scheme, all four- to six-year-old children in local authority maintained infant, primary and special schools are entitled to a free piece of fruit or vegetable each school day.

www.dh.gov.uk/en/Policyandguidance/Healthandsocialcaretopics/FiveADay

National Healthy Schools Programme

To gain National Healthy School status schools must meet criteria in four core themes, including healthy eating. Further details are provided on

www.healthyschools.gov.uk

The School Food Trust

This School Food Trust gives independent support to schools and parents to improve the quality of school meals.

www.schoolfoodtrust.org.uk

Food in Schools

The DfES and the Department of Health introduced the Food in Schools programme to encourage schools to look at all aspects of food during the day and to develop whole-school food policies. They can also set up local food partnerships, where secondary food specialists train and support their primary colleagues, helping them

to work towards the National Healthy Schools Standard.

www.foodinschools.org

The Food Standards Agency

The Food Standards Agency (FSA) works with UK education and health departments, and other partners, to encourage schools to adopt a whole-school approach to food and nutrition and to improve children's dietary health. This goes wider than that of healthy eating, embracing food safety and food allergies. The FSA is currently consulting on food competences for children and young people, which underpin food and cooking activity, such as the FSA's 'What's Cooking' community and school food clubs in the north-east of England.

www.foodstandards.gov.uk

Annex A

Schools visited for this survey

Alvechurch C of E Middle School, Worcestershire
 The Avon Valley School and Performing Arts College, Rugby, Warwickshire
 Cullompton Community College, Devon
 Hall Orchard Church of England Primary School, Loughborough, Leicestershire
 Hempstalls Primary School, Newcastle, Staffordshire
 Henley Green Primary, Coventry
 Henry Hinde Junior School, Rugby, Warwickshire
 Hugh Sexey Church of England Middle School, Wedmore, Somerset
 King Edward VI School, Birmingham
 Linton C of E VA Infant School, Cambridgeshire
 Linton Heights Junior School, Cambridgeshire
 Penrice Community College, St Austell, Cornwall
 The Redstart Primary School, Chard, Somerset
 Robert Bakewell Primary School and Community Centre, Loughborough, Leicestershire
 Rockwell Green Church of England Primary School, Wellington, Somerset
 Ridgefield Primary School, Cambridge
 St Ivo School, St Ives, Cambridgeshire
 St John's C of E (A) Primary School, Stoke-on-Trent
 St John Fisher Catholic High School, Newcastle-under-Lyme, Staffordshire
 St Peter's C of E (A) High School and International Language College, Stoke-on-Trent
 St Luke's Church of England High School, Exeter, Devon
 Shepshed High School, Leicestershire
 Swithland St Leonard's C of E Primary, Loughborough, Leicestershire
 Tidcombe Primary School, Tiverton, Devon
 Tiverton High School, Devon
 Two Moors Primary School, Tiverton, Devon
 The Willows Primary School, Stoke-on-Trent

Annex B

Summary of the 2006 interim food-based standards

- Every day pupils should be provided with one of the following: meat, fish or other non-dairy sources of protein (eggs, nuts, pulses).
- Red meat should be available twice a week in primary schools and three times a week in secondary schools.
- Manufactured meat products may be served occasionally, providing they fulfil legal minimum meat content levels set out in regulations in the Meat Products (England) Regulations 2003, are not 'economy burgers', and contain none of the banned list of offal such as brains or lungs.
- Fish should be provided once a week in primary schools and twice a week in secondary schools. Oily fish should be made available once every three weeks.
- Starchy foods should be available daily. Fat or oil should not be used in cooking starchy foods more than three times a week.
- Bread should be available every day.
- One portion of fruit per child per day. A single portion should be at least 40g.
- One portion of vegetables and/or salad per day. A single portion should be at least 40g.
- Fruit based desserts should be made available twice a week. These could include fruit crumble, fruit pie, fruit in jelly and fruit served with another item. However, 50% of the raw ingredient weight must be fruit and one portion of fruit must be at least 40g.
- Meals should not contain more than two deep-fried items in one week. This includes products which are deep-fried in manufacture.
- Milk and dairy foods, including cheese, yogurt (frozen and drinking varieties) fromage frais and custard, should be available every day.
- The only drinks available should be: still or fizzy water, skimmed or semi-skimmed milk, pure fruit juices, yogurt or milk drinks (with less than 5% added sugar), drinks made with combinations of the above such as smoothies, low calorie hot chocolate, tea and coffee.
- Pupils should have free access to water at all times.
- Salt should not be made available and any condiments should be provided only in sachet form.
- No confectionery, chocolate or chocolate-coated products, apart from cocoa powder used in cakes and low calorie hot drinking chocolate, should be provided at lunch time.
- The only savoury snacks available should be nuts and seeds with no added salt or sugar.

The School Meals Review Panel also recommended that:

- all schools should aspire to providing a hot meal, cooked on site, from fresh and seasonal ingredients, although it recognised that this level of provision could not yet be achieved by all schools
- school caterers should ensure that choice is available for all young people right through to the end of lunchtime, so that those eating later are not disadvantaged by being prevented from choosing a healthy, well balanced meal
- procuring meals should be consistent with principles of sustainable development, that is, ingredients should be seasonal and sourced locally where possible.