

Annex A

Literature Search process/strategy

A PubMed search was carried out using the term 'Whole School Food Policy' which returned 6 results, 1 which met inclusion criteria (later also found in systematic PubMed searches).

The following databases were then interrogated:

- Department of Health's Library Catalogue (Lib Cat)
- HMIC database (Health Management Information Consortium covering the Department of Health and King's Fund library stock)
- PubMed (the internet version of Medline)
- The British Nursing Index
- Cochrane

Filters applied:

- English language only.
- Age group: primary school children (PubMed (U.S.): National Library of Medicine definition split primary school into pre-school (2-6 years old) and primary school (6-12 years old)).
- Date of publication limited to since 2000 (as Healthy Schools programme started in 1999).
- PubMed: limited to humans (humans and animals).
- PubMed: 'Western World' - UK, USA, Europe and Australia.

Search terms

(considered to be the most relevant areas to WSFP to give the best results):

- Whole School Food Policy
- Healthy Food
- Primary School children
- Primary Schools
- Nutrition
- Diet
- Great Britain
- West Midlands
- Food
- Food habits
- Fruit and Schools (Primary)
- Obesity and Primary Schools
- Diet and habits
- School Nutrition Action Groups
- Children's health
- Healthy Schools

Mapping Exercise:

The above search terms were mapped to thesaurus terms available on PubMed, Lib Cat, BNI and HMIC.

Search strategies

These were devised (based on the mapping exercise) for each search engine (PubMed, BNI, HMIC, Lib Cat):

PubMed search strategies

1. Nutritional Policy AND Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool) AND Primary School* as free-text search
2. Child Welfare (single term search) AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search AND (Child Nutrition Sciences OR Child Nutrition Disorders)
3. Child Health Services AND Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool) AND Primary School* as free-text search (Child Nutrition Sciences OR Child Nutrition Disorders)
4. (Child Nutrition Sciences OR Child Nutrition Disorders) AND Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool) AND Primary School* as free-text search
5. Nutrition Policy OR Nutrition Requirements AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
6. Diet Therapy AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
7. (Food OR Food and Beverages) AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
8. Food Habits AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
9. Fruit (single term search) AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
10. Vegetables AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
11. Obesity AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
12. Malnutrition AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
13. Diet AND (Child OR Child Preschool (explode Child on MeSH tree to include Child Preschool)) AND Primary School* as free-text search
14. School Nutrition Action Groups free-text search UK only results.

British Nursing Index search strategies

1. (Food AND Health) AND School Health
2. (Diet AND Nutrition) AND School Health
3. (Food AND health) AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)

4. (Children Services OR Child Health Services OR School Health) AND (Food AND health AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$))
5. (Nutrition AND Diet) AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
6. Child Health\$ AND (Food AND Health) AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
7. Child Health\$ AND (Diet AND Nutrition) AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
8. Children Nutrition and (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
9. Food Habit\$ *free-text search* AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
10. Fruit OR Vegetables *free-text search* AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
11. Obesity AND (Primary School\$ OR Primary Schoolchild\$ OR Primary School child\$)
12. Obesity AND (Children Services OR Child Health Services OR School Health)

HMIC search strategies

1. Food AND (Primary Schoolchildren OR Primary Schools)
2. Child Health AND (Primary Schoolchildren OR Primary Schools)
3. Children's Health Services AND Food AND (Primary Schoolchildren OR Primary Schools)
4. Healthy Schools AND Food AND (Primary Schoolchildren OR Primary Schools)
5. Healthy Schools AND Food
6. Health Schools AND (Primary Schoolchildren OR Primary Schools)
7. Nutrition AND (Primary Schoolchildren OR Primary Schools)
8. Fruit AND (Primary Schoolchildren OR Primary Schools)
9. Vegetables AND (Primary Schoolchildren OR Primary Schools)
10. Diet AND (Primary Schoolchildren OR Primary Schools)
11. Food Habits AND (Primary Schoolchildren OR Primary Schools)
12. Obesity AND (Primary Schoolchildren OR Primary Schools)

LibCat search strategies

1. Food AND (Primary Schoolchildren OR Primary Schools)
2. Nutrition AND (Primary Schoolchildren OR Primary Schools)
3. Child Health AND (Primary Schoolchildren OR Primary Schools)
4. Diet AND (Primary Schoolchildren OR Primary Schools)
5. Food Habits AND (Primary Schoolchildren OR Primary Schools)
6. Fruit AND (Primary Schoolchildren OR Primary Schools)
7. Vegetables AND (Primary Schoolchildren OR Primary Schools)
8. Obesity AND (Primary Schoolchildren OR Primary Schools)

These were inputted into the search engines. Both MeSH headings and natural language were used to search on the Cochrane Database of Systematic Reviews.

The titles and abstracts of all the papers found via these searches were read (678). 19 papers were retrieved (4 which met inclusion criteria and 15 which it was unclear from the title/abstract whether they met the inclusion criteria).

Examining References:

References from the papers found in the literature search yielded a further two papers, both of which met the inclusion criteria.

Grey Literature:

Regional Public Health Networks were contacted via email: West Midlands Directors of Public Health, West Midlands Electronic Health Network, Regional Food Policy Network and West Midlands Healthy Schools co-ordinators (as not all were involved in the random samples of schools in the study). This resulted in five responses, with recommendations to look at resources which were relevant as background material.

Contacts in national organisations/networks were also contacted via email: The School Food Trust, The Health Education Trust and Healthy Schools Co-ordinators nationally. This resulted in two responses again with recommendations to look at resources relevant as background material.

A Google search was undertaken on 'whole school food policy'. The first five pages of the Google search results were consulted. This brought up 50 results, 6 of which were guidance papers/resources relevant for background information.

Expert opinion:

Expert opinion was consulted from the following people: Regional Healthy Schools co-ordinator, National Healthy Schools Team, Regional School Food and Health co-ordinator, Food leads in Department of Health West Midlands. This resulted in recommendations to look at resources, again relevant as background material.

Annex B

Data Extraction Form – Included papers

Title	Author/ Year/Place	Publication	Population and setting	Study design	Objective/ Risk factors studied	Key (relevant) results	Study conclusions	Internal validity	External validity	Why included
School food policy at primary and secondary schools in Belgium-Flanders: does it influence young people's food habits?	Vereecken CA, Bobelijn K, Maes L. 2005. Belgium.	European Journal of Clinical Nutrition	157 schools.	Survey and questionnaire	To describe the availability of food items at primary and secondary schools in Belgium-Flanders and to examine the influence school food policy (availability of food items, school food rules, nutrition education programmes) and aggregated school socio-economical status (AGG SES) on the consumption of fruit, soft drinks, crisps and sweets, using multi-level monitoring.	Assessment of the variation in the outcome of variables revealed no significant between-school variation in primary schools, but considerable variation between secondary schools in the consumption of soft drinks, sweets and crisps (but not fruit).	The results indicate that a school food policy can have an impact on adolescents' food habits.	Anonymous survey. Strengths- large no. of pupils for survey, high response rate to questionnaire. Limitations- low school response rate (44% for both questionnaires) and self-reporting- possible social acceptability bias.	Belgium-Flanders. Primary (only 11-12 year olds) and Secondary schools. Looked at the influence of SFP on consumption. SFPs listed as the availability of food, rules and nutritional education programs. Looked at the influence of SES. Teacher is data collector. Used independent student variables.	Met inclusion criteria.
Measuring the 'obesogenic' food environment in New Zealand primary schools.	Carter MA, Swinburn B. 2004. New Zealand.	Health Promotion International	200 primary schools	Self-completion questionnaire	Aim to identify and measure obesogenic elements of the school environment and the canteen sales of energy-dense foods and drinks.	16.5% of schools had a food policy. 91% of those rated the policy as effective or very effective in promoting healthy eating (but very subjective). Mention format of policies. Found high availability of high fat items and low support for healthy food choices (note: in	The food environment was not conducive to healthy food choices for children at NZ schools, reflected in high sales of relatively unhealthy foods from school food services. Programmes that improve school food	No blinding. Low response rate from secondary schools. Relatively high response rate from primary/intermediate schools (60.6%) - makes it more relevant for me. Self-completion questionnaire- possible bias. Completed by teachers but no mention of level of responsibility of	New Zealand. Started with primary and secondary, although actually only looked at primary. Mainly looked at sales as an indication of the influence the environment has on obesity. Key sections on food policies.	Met inclusion criteria.

						UK have school food standards and policies that look at food throughout <u>whole</u> school day). Less healthy dominate due to convenience.	through policies, availability, prices and school ethos are urgently needed.	teachers.		
Exploring changes in middle-school student lunch consumption after local school food service policy modifications	Cullen KW, Watson K, Zakeri I, Ralston K. 2005. USA.	Public Health Nutrition	Students at 3 middle schools in Houston (2790).	Researchers assessing student consumption. Students complete anonymous lunch consumption data.	To assess the impact of changes in school food policy on student lunch consumption.	Consumption of sweetened beverages declined; consumption of milk, calcium, vitamin A, saturated fat and sodium increased after the policy change. Statistically significant decrease in snack chip consumption, increase in ice cream consumption (substituting one snack for another?). Increase in vending machines as a source of candy and snack chips. More vending machines.	Policy changes on foods sold can result in changes in student consumption. But problem if all environments do not make changes.	Anonymous food records. Self-assessment-possible recording social acceptability bias. 3 schools involved had already taken part in an intervention- not randomly selected and used to being in an intervention. Pupils assented to involvement-possible selection bias. Possible differences in those who did and did not take part. But also did random selection of lunch tables.	U.S.A. Middle schools- grades 6-8. Looking at impact of SFP changes on lunch consumption. Say generalisability limited as no information on differences between those who did and didn't take part.	Met inclusion criteria.
Texas School Food Policy Changes Related to Middle School a la Carte/Snack	Cullen KW, Thompson DI. 2005. USA.	Journal of the American Dietetic Association	23 middle schools in Texas.	Sales data	Assess potential impact of SFP changes on energy consumption (concern with middle school children's sudden access to cafeteria).	Reducing portion size resulted in 47 kcal per student on daily basis. Equivalent to 2lb over the school year if everything else remains	Policy changes to modify portion size could impact weight management.	Used sales data and portion size change. Limitations- sales data gave all food beverage sold in school year but no. of transactions and no. of non-student	U.S.A. (bigger concerns about obesity), Middle schools (6 th -8 th grade). Talking about state wide SFP changes. Looking at SFP	Met inclusion criteria.

Bar Foods: Potential Savings in Kilocalories						equal.		purchases not identified. Kilocalorie content based on averages. No descriptive data on students including BMI. Impact of policy changes on total dietary intake could not be assessed as TDI not measured.	changes to portion size and impact on energy balance (and so weight). Talks about the importance of encouraging and supporting efforts to improve school food environments.	
Nutrition policy, food and drinks at school and after school care	Lissau I, Poulsen J. 2005. Denmark.	International Journal of Obesity	70 schools and 66 after school institutions.	Survey- postal questionnaire (actually took place in 1999).	To describe food and drinks available in schools and after school.	3% of schools and 4% of after school institutions have nutrition policy. (I'm looking at schools with WSFP).	School important to prevent obesity and increase nutrition habits in children.	All participating schools accounted for. High participation rate. Self-administered questionnaire- possible bias. No mention of whether anonymous/blinded.	Danish children. Nutrition policy. School grades 1-10 (6-15 yr olds). Only asked head teacher to complete (in some cases other). Looked at after school institutions. No info at individual level.	Met inclusion criteria. Looks specifically at food policies (nutrition).
Competitive food initiatives in schools and overweight in children: a review of the evidence	Fox S, Meinen A, Pesik M, Landis M, Remington P. 2005. USA.	Wisconsin Medical Journal	U.S. studies.	Literature review.	Reviewed literature on school programmes and policies that address competitive foods (junk foods). Review contribution of school nutrition on rates of overweight.	Sale of competitive foods often competes with more nutritious school lunch programs.	Need to improve nutrition via school based nutrition programs and policies that address competitive foods.	Literature review- don't mention search strategy.	U.S studies. Focus on Wisconsin. Concerned with impact of competitive (junk) foods. Talks about impact of (school food) policies on reducing consumption of junk food and impact on nutrition.	Talks about impact of (school food) policies to reduce consumption of competitive foods.
School food policies and practices: a state-wide survey of	French S, Story M, Fulkerson J. 2002. USA.	Journal of The American Diet Association.	463 secondary school principals in Minnesota.	Survey.	To describe food-related policies and practices in secondary schools in Minnesota.	65% of principals believed it important to have a policy. 32% had a policy.	Schools should develop and implement comprehensive school nutrition	Mailed anonymous survey. Limitations- lack of information on specific details about policies,	U.S.A. Secondary schools. Not looking at WSFPs. Looking at associations	Met inclusion criteria.

secondary school principles.							policies. Could foster an environment that is supportive of healthful food choices.	extent to which they are implemented and enforced. No survey pilot testing. No data on survey reliability and validity. High response rate but possible selection bias. No info on SE or ethnic/racial characteristics.	between policy and practice. Results may not be generalisable to other states (and so other countries).	
Food Environment in Secondary schools: A La Carte, Vending Machines and Food Policies and Practices.	French S, Story M, Fulkerson J and Faricy Gerlach A. 2003. USA.	American Journal of Public Health	20 Minnesota Secondary schools.	Data collection via food inventory and site visits (vending machines). Surveys to principals and food service directors re SFPs.	Describe the food environment in 20 Minnesota secondary schools.	Few SFPs reported. Differences between views of principals and food service directors.	Availability of healthful foods and SFPs needs greater attention.	All subjects (schools) accounted for. Self-reported survey to principals and food service directors re SFPs.	U.S.A. Secondary schools. Mostly interested in food availability and 'food environment'. Limited generalisability (20 Minnesota secondary schools).	Met inclusion criteria. Only mention presence of SFPs in one section. Very similar to previous paper.

Annex C

Members of Focus Group

Paola Alessandri-Gray - Shropshire Healthy Schools

Pam Edwards - Shropshire Healthy Schools

Mansel Davies - Shropshire Healthy Schools

Emma Balchin, Regional Healthy Schools Co-ordinator

Sue Baugh, Food Health Team, Wolverhampton Healthy Schools

Gloria Rye, Food Health Team, Wolverhampton Healthy Schools

Catherine Goodridge, Regional School Food and Health Co-ordinator

Karen Saunders, Senior Public Health Manager, DHWM

Annex D

Letter to West Midlands Local Healthy Schools Co-ordinators

To all Local Healthy Schools Co-ordinators:

6th November 2007

Re: Whole School Food Policy Research

As you may be aware, earlier this year we completed a follow up to the Food in Schools Survey 2005. This study shows more than a 107% increase in the number of schools in the region reporting that they have whole school food policies (73% in 2007 compared to 30% in 2005).

The increase in the number of whole school food policies is very positive and we would like to do a further study to assess how effectively they are implemented in primary schools in the West Midlands.

The research will enable us to identify best practice in whole school food policy implementation and how this is impacting on the attitudes and behaviour of pupils, staff and the wider community.

We would like your support and involvement in this project. We wish to carry out the research through visits to a random sample of primary schools across the 14 local authorities in the West Midlands. It is considered that it would be most appropriate to undertake the research in conjunction with your moderation or progress reporting visits to schools in your area. We would need to visit approximately four schools in each local authority area before the end of March 2008.

This project is fully supported by the National Healthy Schools Team, the Regional Director of Children and Learners and the Regional Director of Public Health.

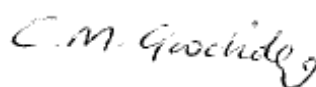
I would be grateful if you would indicate whether you are happy to be involved by returning the attached form to me by the 15th November 2007. We will then call you to arrange a meeting with you to discuss how we can best fit in with your quality assurance processes and moderation/progress visits to schools.

Many thanks in anticipation of your co-operation.

Yours sincerely



Emma Balchin
Regional Healthy Schools Co-ordinator



Catherine Goodridge
Regional School Food & Health Co-ordinator

The Healthy Schools Team (Local Authority)

- Would like to be involved in the research
- Would not like to be involved in the research

Signed (Healthy Schools Co-ordinator)

If you would like further information please ring Sarah Davis tel: 0121 352 5068 or Catherine Goodridge tel: 0121 612 1460.

Please return by Thursday 15th November to sarah.davis@dh.gsi.gov.uk or to Sarah Davis, Department of Health West Midlands, c/o GOWM, 5 St Philips Place, Birmingham B3 2PW.

Annex E:

Questionnaire mapping with Theme, Effectiveness criteria & Outcomes marked

Theme and Effectiveness Criteria	Headteacher / Governor Questions	Pupils Questions	School Cook Questions	Parents Questions	Teachers/HS Leads Questions
Curriculum Food is integrated into the curriculum in a coherent and progressive way (Interview)	(3) How is your food education integrated into the curriculum? [Quantify – Y/N coherent and progressive].	(3) What have you done in your class on Healthy Eating? [Prompts: Balance of Good Health, 5A Day, World Food, Sustainable Food]. [Quantify - Y/N sufficient work done].	(4) Have you been involved in supporting any classroom activities/projects on food? [Quantify – Y/N school cook involved]	(4) What have your children done in class on Healthy Eating? [Quantify – Y/N aware of work done].	(6) What teaching have you done around food/healthy eating this academic year? [Quantify - Y/N sufficient work done].
Food Provision All school food meets national standards (Observation). There is a range of food provision throughout the school day (Observation). Changing attitudes and behaviours (Interview).	(4) How have food choices been affected by changes to school food? Can you identify changes children and young people are making to their food choices across the school day as a result of new food standards? [Quantify – see FIS survey].	(1) What do you think of food in your school? What is the best/worst thing? Explore [Quantify - +/-ve reaction to school food].	(2) Has school meal uptake gone up or down? What action have you taken? [Quantify – uptake gone up or down].	(1) What do you think of food in your child's school? Explore [Quantify - +/-ve reaction to school food].	(3) As Headteacher/Governor question. (2) As pupils question.
Involvement Schools are engaging the school community in food policy (Interview).	(2) How have you involved the whole school community in developing WSFP? Has this been helpful? Were there any problems? [Quantify – Y/N involvement sufficient].	(2) Are there any rules about the food you're allowed to bring into school? Have you been involved in deciding these rules? If so, how? [Quantify – Y/N pupils involved].	(4) How are you involved in supporting other food activities additional to your role as school cook? [Quantify – Y/N school cook involved]	(3) Are there any rules at your child's school as to what they're allowed to take into school? How were you involved in deciding these rules? [Quantify – Y/N parents involved].	(5) Have you been involved in developing any food related projects? If so, what are they? (4) What policies has your school got around food? If mention WSFP: How have you been involved in developing the WSFP? Has this been helpful? Has it changed ways of working within the school? [Quantify –Y/N teachers involved].
Training Training is provided for staff on core nutrition and food hygiene competencies (Interview).	(5) Does your school provide food related training for staff? If so, what? (Prompt: Basic Food Hygiene, Cooking skills, Nutrition). How has it changed your practice? [Quantify – Y/N sufficient training provided?]	N/A	(5) What additional training or development have you recently attended to support your role as a school cook? Has it changed your practice? What have you provided for your staff? [Quantify – Y/N training provided]	(5) Has your child's school provided any workshops for parents on food? If so, what have you done as a result of it? [Quantify – Y/N workshops provided].	(7) What training have you been on in the last year relating to food? How has it changed your practice? [Quantify – Y/N training provided].
Leadership There is an identified member of senior management to oversee all aspects of food in school (Interview).	(1) Who oversees/co-ordinates school food in your school? Are they a member of the senior management team? [Quantify – who co-ords work]	(4) Do you have a school council? If so, who is your rep on the school council? [Quantify – Y/N children aware of where can raise school food issues].	(1) Who manages your service? [Independent or LA]. (3) Who has the most influence over the food provided in your school? (Prompts: Headteacher? Catering Provider Firm?). [Quantify - who has most influence].	(2) Do you think your school provides strong leadership on food in schools? [Quantify - +/-ve reaction].	(1) As parents question.
School Environment: All Observation. School Tour – promotional material? Lunch time – Displayed menu? Food choices reflect menu? Attractive environment? Suitable sitting places? Supervisors? Behaviour? (Noisy/Calm) Food meets School Food standards? Break time – Tuck shop? Snacks provided meet school food standards? Collect examples of good practice – case studies.					

Outcomes:

Learners reactions, Modification in Attitudes and Perceptions, Acquisition of knowledge and Skills, Changes in behaviour, Changes in organisational practice, Benefits to children and young people and the school.

Annex F

Final Questionnaire

Questions for Head teacher:

Leadership

1. Who oversees/co-ordinates school food in your school?
2. Are they a member of the senior management team?
3. Whose responsibility do you feel it should be to lead on school food issues? (Job title)

Involvement

4. How have you involved the whole school community in developing your WSFP? <i>Prompts if necessary: Letters to parents, Parents evenings, School council, SNAG, Questionnaire to pupils, Questionnaire to home.</i> <i>If mention SNAG/School Council: who is represented?</i>
5. What has the reaction been from parents and staff to the WSFP? <i>Very Positive/Positive/Ambivalent/Negative/Very Negative</i>

Curriculum

6. How is food education integrated into the curriculum?
--

Food Provision

7. What initiatives/changes have you implemented or have you in place to assist improvements in school food, if any? <i>Explore examples of good practice</i> <i>Prompts if necessary: SFVS, Fruit tuck shop, Healthy snacking policy, Growing club, Cooking club, Outside agencies, Rewards, Other?</i>
8. Do you think children and young people are making changes to their food choices across the school day?
9. If yes – what changes? <i>Prompts if necessary: Making healthier choices, Improved attitudes towards healthier food, Improved knowledge and eating behaviour, Improved behaviour, Other?</i>

Training

10. Does your school provide food related training for staff?

11. If yes, what is available and where is it accessed?

Prompts if necessary: Foundation Certificate in Food Hygiene, Cooking skills, Nutrition, Other?

12. How have you used this training to influence work in the school?
--

Any other examples of good practice they want to mention?

Questions for Governor:

Leadership

1. Do you know who oversees/co-ordinates food in the school? (Job title)

Explore meal times and other school food

2. Are they a member of the senior management team?

3. Whose responsibility do you feel it should be to lead on school food issues?
(Job title)

Prompt – how are you involved as a governor?

Involvement

4. How have you been involved in developing the school's WSFP?

Prompt – do you know about the policy? What was your involvement?

5. Do you know what the reaction to the WSFP has been from
parents/community?

Very Positive/Positive/Ambivalent/Negative/Very Negative

Curriculum

6. Do you know how food education is integrated into the curriculum?

Food Provision

7. Can you tell me about any initiatives that are in place to assist
improvements in school food, if any?

Explore examples of good practice

*Prompts if necessary: SFVS, Fruit tuck shop, Healthy snacking policy,
Growing club, Cooking club, Outside agencies, Other?*

8. Do you think children and young people are making changes to their food
choices across the school day?

9. If yes – what changes?

*Prompts if necessary: Making healthier choices, Improved attitudes towards
healthier food, Improved knowledge and eating behaviour, Improved
behaviour.*

Training

10. Do you know if the school provides food related training for staff?

11. If yes, what is available and where is it accessed?

Prompts if necessary: Foundation Certificate in Food Hygiene, Cooking skills, Nutrition, Other?

12. Do you think this training has influenced work in school?

Any other examples of good practice they want to mention?

Questions for School cook / School Catering Manager:

Leadership

Who manages your school meals service? (Specify name).

Prompts if necessary: Independent, Local Authority, National Company.

Food Provision

1. Which are the most and least popular meals?

2. Do you know if school meal uptake gone up or down (since the new standards have been introduced)?

Prompts if necessary: Up, Down, Don't know, Stayed the same.

3. How do you promote school meals to pupils and parents?

Prompts if necessary: Don't promote, Newsletters, Menus sent home, tasting sessions, Other?

Leadership

4. Who has the most influence over the food provided in your school?

Prompts if necessary: Head teacher, Catering Provider Firm, Governors.

5. How much scope do you have to change or influence menus on a scale of 1-5?

Scale 1-5 where 1 is none and 5 is a lot

☹ 1 2 3 4 5 ☺

Curriculum/Involvement

6. Are you involved in supporting other food activities additional to your role as school cook?

7. If yes, how?

Prompts if necessary: Washing school fruit, Cooking clubs, SNAGS, Theme days, Other?

Training

8. Have you attended any additional training or development in the past year to support your role as a school cook?

9. If yes, what training have you attended?

Prompts if necessary: Food Hygiene, New Standards, Cooking Skills, Nutrition, Other?

10. Has it changed your practice?

11. Has the training been provided for all your team and how?

If so: was this central training or cascade training?

Any other examples of good practice they want to mention?

Questions for Pupils:

Food Provision

1. What food do you eat at school?

Explore for case studies – breakfast, snacks, lunch, other food.

2. Explore with children their views on:

Choice of food at school, Taste of food, Cost, Lunchtime organisation.

3. Is there anything the school has done which has made you eat more healthily?

If so, what? *Explore case studies*

4. Do you have any special food when it is someone's birthday in your class?

If so, what?

Involvement

5. Are there any rules about the food you're allowed to bring into school?

6. What are these rules?

Prompts if necessary: Drinks, Chocolate, Snacking.

7. Have you been involved in deciding these rules?

8. If so, how?

Curriculum

9. What have you been taught in class this year about food or healthy eating?

Prompts if necessary: Balance of Good Health, 5 A Day, food from other countries, Sustainable Food, Cooking food, Tasting food, Bread, Packed lunches, Other?

Leadership

10. Do you have a school council where you discuss food issues?

11. If yes, who is your rep on the school council?

Anything else they want to mention?

Questions for Parents:

Food Provision

1. What do you think of the food provided for your child at school?

Explore for case studies: breakfast, tuck, lunch and other food e.g. celebrations

Discuss choice, price, taste, timing and organisation each on a Scale 1-5 where 1 is very poor and 5 is very good.

☹ 1 2 3 4 5 ☺

Leadership

2. Do you think your school provides strong leadership around food in schools?

Give examples e.g. rules, awareness of school policies, other?

Involvement

3. Are there any rules about the food your child is allowed to take into school?

4. What are these rules?

Prompts if necessary: Drinks, Chocolate, Snacking, Other?

5. How were these rules introduced?

Identify whether they were consulted and how.

Curriculum

6. What have your children done in class around Healthy Eating that you are aware of?

Prompts if necessary: Balance of Good Health, 5 A Day, Food from other countries, Sustainable Food, Cooking skills, Other?

Training

7. Has the school held any workshops this school year for you on food/healthy eating?

Explore case studies – examples of types of workshops.

Any other examples of good practice they want to mention?

Questions for Teachers:

Leadership

1. Do you think your school provides strong leadership around food in schools?

Give examples e.g. rules, awareness of school policies, other?

Food Provision

2. What foods do children eat at school?

Explore for case studies – breakfast, snacks, lunch, other food.

3. What do you think of the food provided in your school?

Explore:
Breakfast
Lunchtime
Tuck

Each on a Scale 1-5 where 1 is very poor and 5 is very good.

☹ 1 2 3 4 5 ☺

4. What do you think about:

Choice, Taste, Cost, Lunchtime organisation.

5. What are the best/worst things?

Explore.

6. What initiatives/changes have you implemented/have you in place in the school to assist improvements in school food, if any?

Prompts if necessary: SFVS, Fruit tuck shop, Healthy snacking policy, Growing club, Cooking club, Other?

7. Do you think children and young people are making changes to their food choices across the school day?

8. If yes – what changes?

Prompts if necessary: Making healthier choices, Improved attitudes towards healthier food, Improved knowledge and eating behaviour, Improved behaviour.

Involvement

9. What policies does your school have in place in relation to school food?

10. *If mention WSFP:* How have you been involved in developing the WSFP?

11. Has this been helpful?

12. Has it changed ways of working within the school?

13. Have you been involved in developing any food related projects?

14. If so, what are they? *(Give examples)*

Curriculum

15. What have you taught on food/healthy eating this academic year?

(Subject areas?)

Training

16. What food related training have you attended during the last year?

Prompts if necessary: Food Hygiene, New Standards, Cooking Skills, Nutrition, Other?

17. How has it changed your practice?

Any other examples of good practice they want to mention?

Annex G

School Feedback template

**Whole School Food Policy Research
Feedback Form**

Name of School	
Address	
Local Authority	
Date of Visit	
Researchers	
Feedback	
Suggestions and resources	
Useful websites	

Annex H

Checklist headings

Scoring: E = Essential, D = Desirable	WSFP (Pre-visit)	Practice from Questionnaire/Observation (Post visit)
	Mentioned?	Delivered?
	Yes/No/Unclear	Yes/No/Unclear
Aims (E)		N/A
Objectives (E)		N/A
Mission (E)		N/A
Method (E)		N/A
Guidelines (E)		N/A
Rationale (E)		N/A
Did they have a consultation process? (E)		
Are responsibilities clear? (E)		
Are there reward systems in place? (D)		
Are the needs of allergies, vegetarians, religious needs met? (E)		
Is there a breakfast club? (D)		
Is there a tuck shop? (D)		
Do they have Healthy Snacks? (D)		
Is there a Free Fruit and Veg Scheme? (D)		
Is free Fruit & Veg provided for KS2? (D)		
Is water freely available? (D)		
Do they provide milk? (D)		
Policy on sandwiches? (D)		
Policy on hot lunches? (D)		
Is there lunch time supervisor support? (D)		
Do the lunch time supervisors monitor food consumption? (D)		
Curriculum (Food) clear? (E)		
Is there a cookery club? (D)		
Is there a growing club? (D)		
Do they meet standards for school lunch? (E)		
Do they meet standards for food other than lunch? (E)		
CPD provided for:		
Staff? (D)		
Parents? (D)		
Catering? (D)		

Is there involvement of outside agencies? (D)		
Supplementary data		
Changes Children/Young People making to food choices across school day:		
Making Healthier Choices?	N/A	
Improved attitudes towards healthier food?	N/A	
Improved knowledge and eating behaviour?	N/A	
Other? (Detail)	N/A	
School Environment	N/A	
Nutritional Promotional Materials?	N/A	
Attractive Eating Environments?	N/A	
Tuck shop food meets standards?	N/A	
Lunch menu displayed?	N/A	
Food choices reflect the menu?	N/A	
Room enough to sit?	N/A	
Lunch time food meets standards?	N/A	

Annex I

Explanation of Control chartsⁱ

Theory of variation- Shewart (or Statistical Process Control (SPC))

Started with work to improve quality of telephones at Bell Laboratories, NJ, USA in 1920s. Shewart known as the 'father of modern quality control'.

Variation cannot be eliminated in the real world. Variation doesn't mean that some measurements are better than others or some fall below a particular standard. Stable processes exhibit common cause variation which is best reduced by action on the underlying process.

The theory of variation categorises variation according to the action needed to reduce it.

Shewart created the control chart, to distinguish between common cause and special cause variation and to guide the user to take appropriate action for improvement.

Control limits represent the limits of common-cause variation. The limits are 3 SDs from the mean. Data that is outside of these control limits suggest special cause variation.

With Common Cause Variation the action to take is to change the underlying process (e.g. plan-do-study-act cycle (Deming)).

Special cause variation is the result of factors extrinsic to the process, the action to take here is to find and act on this cause.

Changing the process will reduce variation/error but not eliminate it.

Control limits are an indication of how a process is working; it comes from within the data.

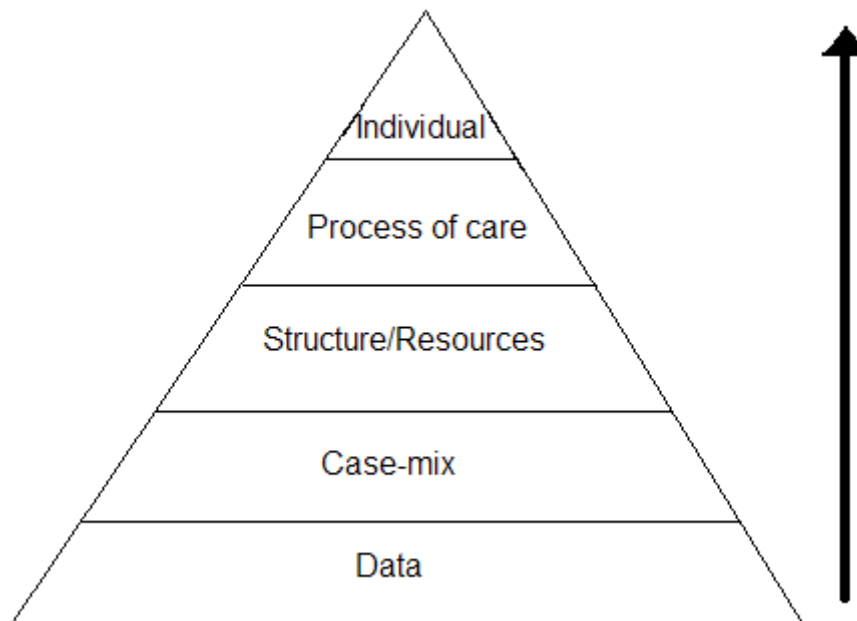
Standards are imposed on the process; this comes from outside the process.

The control chart method fits with the scientific method- you are forced to make a hypothesis, test it and implement it:

'the control chart process takes us through the complete cycle of the scientific method where we develop theories based on data prior to testing them... it is one of very few statistical methods that complete the hypothesis generation-hypothesis testing cycle of the scientific method' (Hoerl RW, 2000).

ⁱ Taken from own notes from Mohammed, M.A. lecture on Performance Measures and League Tables, MPH January 2007. For further information, see: Mohammed, M.A., Worthington, P. and Woodhall, W.H. Plotting basic control charts: tutorial notes for healthcare practitioners Qual. Saf. Health Care 2008; 17; 137-145 doi:10.1136/qshc.2004.012047

Special cause variation- pyramid of variation



80-96% of failure is attributable to the system and not the individual, so don't start with the individual. Need co-operation for improvement (Deming). When performance management focuses on the individual it doesn't address the system.

If the reward and punishment system is focused on individuals and doesn't acknowledge the contribution of the system (the team) you don't get improvement- need co-operation.

Systems theory says improvement does not come out of competition.

How you investigate special cause variation is very important. Start user friendly until you find otherwise. Engage in dialogue- co-operation.

Guidance from the control chart is not infallible:

Actions based on Shewart's approach are subject to two types of mistake:

Mistake 1- treat an outcome resulting from a common cause as if it were special cause.

Mistake 2- treat an outcome resulting from a special cause as if it were a common cause.

It is impossible to reduce the frequency of both errors to zero, but what we can do is minimise the economic losses due to either kind of mistake.

Shewart argues that variation from stable processes lies within limits that can be most usefully set at 3 SD limits from the mean. This is the level that minimises the economic consequences of both types of mistake.

Use of a narrower range might seem more appealing (e.g. 2 SDs from mean), but stable systems can and do produce data beyond 2 SDs, so we will be guided to look for more trouble more often than actually exists (mistake 1) and we risk making matters worse.

Annex J

WSFP scores

School Reference	WSFP score
A	23
B	31
C	20
D	29
E	23
F	23
G	13
H	38
I	31
J	26
K	32
L	17
M	10
N	29
P	32
Q	19
R	20
S	22
U	27
V	19
W	26
X	41
Y	27
Z	31
AA	34
BB	19
CC	30
DD	14
EE	40
FF	20
HH	32
II	20
JJ	6
KK	30

Schools in red: those that did not accept a visit.

Annex K

National Child Measurement Programme dataⁱⁱ

It should also be noted that there are data quality issues in the rounding of height and weight measures: PCTs were asked to record children's height and weight to the first decimal place, however preliminary analysis showed that some PCTs submitted heights and weights rounded to a whole number or a half number. This rounding is not a serious issue for height measures, as it only results in a small percentage error on the final measurements. For weight measurements however, the resulting error can be much larger (around 5% of the overall weight).

Rounding of measures in the 22 schools:

Height - Rounding more than double expected for whole and half measures (40.2% observed, 20% expected), affects Y6 (34%) and YR (46%). 15 of the schools showed significant recording of whole or half rounded data (12 for both year groups combined, 11 for Year R and 8 for Year 6). 1 school recorded 100% of its data rounded to a half or whole figure.

Weight - Rounding nearly double expected for whole and half measures (39.2% observed, 20% expected), affects Y6 (32%) and YR (47%). For both Y6 and YR combined 11 schools had significantly high rounding for weight. 7 schools measured 100% of YR weights to a whole or half (which has a greater effect on error than Y6 or rounding of height), (4 others were significantly high). For Y6 2 schools rounded 100% of weight measures and a further 2 schools were significantly high.

In the next academic year (2008/09) the NCMP data will be expected to increase coverage from 80 to 85%. The Information Centre warns this may affect obesity levels by up to 3%.

ⁱⁱ For further information see: HM Government/National Obesity Observatory/APHO/NHS Information Centre (May 2008) National Child Measurement Programme 2006/07: Guidance for analysis by Public Health Observatories: A report for the Cross Government Obesity Unit on behalf of the Association of Public Health Observatories.

Annex L

Glossary of Terms

CPD	Continuing Professional Development
DCSF	UK Government Department for Children, Schools and Families (2007 onwards)
DfES	UK Government Department for Education and Skills (pre 2007)
DH	UK Government Department of Health
DH WM	Department of Health West Midlands
FSD	Food Service Director (USA)
FSM	Free School Meals
HS	Healthy Schools
LA	Local Authority
LACA	Local Authority Catering Association
NCMP	National Child Measurement Programme
Ofsted	Office for Standards in Education
PSA	Public Service Agreement
SES	Socio Economic Status
SFT	School Food Trust
SNAG	School Nutrition Action Group
WM	West Midlands
WMPHO	West Midlands Public Health Observatory
WSFP	Whole School Food Policy