## Children's Nutrition Action Plan

Policy recommendations to improve children's diets and health

The Food Commission – 2001

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# Policy recommendations to improve children's diets and health

The Food Commission is the UK's leading consumer watchdog on food issues. Funded by public subscriptions and donations, The Food Commission campaigns for safer, healthier food and reports on such issues as children's food, genetically modified food, food irradiation, animal growth hormones, additives, pesticides, food labelling and advertising, as well as health issues such as functional foods, fat, sugar and salt. Our journal, *The Food Magazine*, is available on subscription.

The Food Commission undertakes independent research into food issues. Recent reports include:

- Children's Food Examined: An analysis of 358 products targeted at children;
- Tinned Paste and Polyfiller? Baby food in the 1990s;
- Fortification Examined: How added nutrients can undermine good nutrition.

The Food Commission publishes posters on a range of food issues, including *Children's Food, Food Labelling*, and *Food Additives*, and promotes books and reports relating to food and nutrition issues, including *The Nursery Food Book*, *The Food Our Children Eat, The Chips Are Down*, and *Poor Expectations: Poverty and under-nourishment in pregnancy*.

To subscribe to *The Food Magazine* (published quarterly), or to receive details of other publications, contact:

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## Children's Nutrition Action Plan

## Introduction

Food and nutrition policies are very much in the news these days. Food policies across Europe have been the attention of much media concern, not just over agriculture and food supply policies, BSE and dioxin in our food supplies, but in a quieter way there has been mounting concern over European rates of heart disease and cancer, and rising incidence of obesity. The World Health Organisation's nutrition office for the European Region has launched a four-year Food and Nutrition Action Plan which considers some of the issues we look at in this document. The UK Department of Health has launched a series of policy documents on public health policy which include food, diet and nutrition concerns. Also, the recently launched UK Food Standards Agency is also developing a nutrition policy.

Children's food is a key element of food policies for several good reasons. For a start, what children eat not only affects their health at the time, but will make a significant difference to their later health. For instance, after around the age of four, children who are overweight are increasingly likely to be overweight or obese as adults. Before they reach their teens, children can show the first signs of cardiovascular disease in the tissues of their arterial walls. By this age, girls have already begun to lay down the nutritional base for their future pregnancies, which in turn will affect the foetus and long-term health of their children. Nutrition in childhood is therefore of importance for public health and the costs to our health services for years to come.

Children are less able to make decisions about their own best interests than are well-informed adults. The regulation of people's free choice about the foods they eat is often attacked as 'nannyism' but this fails to apply when it comes to children. We acknowledge the need to protect children through social controls – we ban the advertising of alcohol and tobacco to children, and we prohibit children from buying drink and cigarettes until they are considered old enough to know what they are doing. But with food, society has been less assertive and has allowed the free-choice and free-market arguments to prevail.

This state of affairs is doing our children no good. The present document reviews some of the main issues that concern children's food and nutrition, and looks at possible interventions or targets that might be constructed, to help us protect children's health in the future and improve what children are eating.

## Children's Nutrition Action Plan

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**Children's Nutrition: current issues**Report of a round-table meeting, London, 26<sup>th</sup> March 2001

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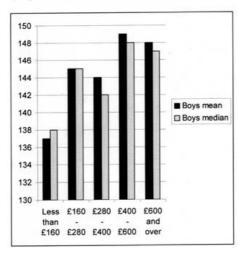
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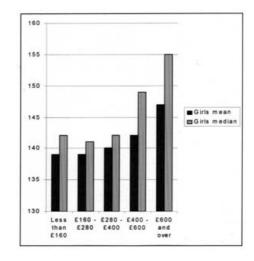
Notes on the contributors' presentations follow. Some details have been changed to bring these notes up-to-date (e.g. details of government department activities), and some material has been added by delegates after the meeting.

## Tim Lobstein The Food Commission

To assess the current state of children's nutrition, we need to look for indicators of impacts on health that are attributable to diet. A classic method for evaluating children's diets is to look at the incidence of stunted growth. Recent government research shows that children from lower income families are likely to be significantly shorter than children from higher income families (see figures 1 and 2).

Height (cm) by family income, children aged 5-15





FIGURES 1 & 2: Height (cm) by family income, children aged 5-15 (boys and girls)

Is this effect caused by deficiencies in early nutrition, perhaps in early childhood or even before birth? Or has the growth simply been *delayed* in lower income families? If so, why? And why is income such a distinguishing feature?

The second classic measure is weight or underweight. Stunting and underweight are the two classic signs of a grossly impoverished diet, short on essential nutrients and adequate energy. But the occurrence of underweight children in the UK does not correlate with occurrences of stunted growth. There is no income differential showing children to be underweight in poorer households (figure 3).

Body Mass Index by family income, children aged 5-15

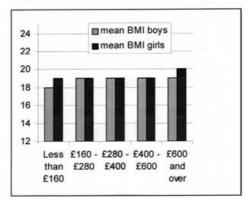


FIGURE 3: Body Mass Index by family income, children aged 5-15

This evidence implies that children are getting enough energy to maintain body weight, but not enough of the nutrients that encourage adequate timely growth.

Energy but not enough nutrients is the classic story of a processed high-fat and high-sugar diet without the micronutrients that encourage health and prevent degenerative disease.

What has been happening to children in terms of their intake of energy-rich foods? Are they showing signs of being more overweight now than previously? A government survey of children's health in the mid 1990s shows around one in five young people aged 16-24 are overweight, and one in 15 obese (see figure 4).

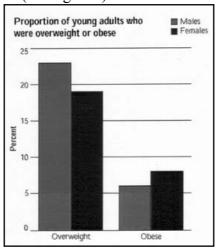


FIGURE 4: Proportion of young adults who were overweight or obese

A study of young children has showed startling evidence for rapidly worsening obesity rates, with the proportion of young children who are obese reaching a record level (see figure 5).

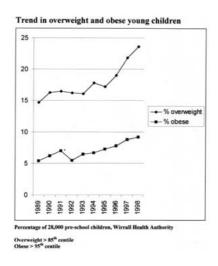


FIGURE 5: Trend in overweight and obese young children

What is happening to our youngsters that is leading to this potential epidemic of ill health? The consumption of a sub-optimal diet, a diet high in fats and sugars and low in essential nutrients (sometimes called a 'junk food diet') may be a significant factor in these trends.

It is the contention of the Food Commission that children don't simply eat junk food – they are *sold* it. Junk food is actively marketed at children. If we were deliberately trying to undermine children's health, we would keep them in front of the TV all day and do everything we could to sell them junk food; we would encourage them to eat as much food high in fat, salt or sugar as possible, and forget about lean meat, wholegrain foods, fish and fruit and vegetables.

From evidence gathered by the Food Commission, it seems that this is exactly what is happening. For example, the Food Commission took a look at 358 foods being marketed to children (this excluded snack foods, soft drinks and confectionery, since these can readily be identified as 'junk'). The products surveyed included canned products, cereals, bakery goods, fruit and vegetables and frozen foods.

Apart from those products that failed to display useful nutritional information, 77% of the products surveyed were junk foods – defined in the report as those high in fat and/or salt and/or sugar, and with a low level of nutritious ingredients. At best, 7% were relatively healthy foods that could be encouraged for a healthy diet.

The amount of money spent promoting these 'foods' is extraordinary. Mars confectionery, Kellogg's cereals, McDonald's fast food chain, Coca Cola and Nestlé Rowntree spend on advertising the sort of budget that would run the entire Food Standards Agency, Meat Hygiene Service and the Department of Health nutrition department put together. Procter and Gamble, makers of Sunny Delight and Pringles crisps, spent more on advertising in three months than the government spends on these departments' services in a year.

Nor is advertising the only means of promoting healthy or unhealthy practices. For example, a recent study of images and messages of breast and bottle feeding in the media (newspaper articles, TV soap operas, documentaries, daytime chat shows, etc.) found five times as many bottle-feeding references as breast-feeding references. Bottle feeding was found to be used as a symbol of babyhood, with bottle-feeding babies being used for articles on other subjects about childcare, and in adverts for whisky and for digital TV.

These are the kinds of issues that need to be addressed if we are to achieve a food culture that supports healthier food choices and a better health outlook for our children. A Children's Nutrition Action Plan should high light these issues and the means for dealing with them.

The Food Commission, 94 White Lion Street, London N1 9PF.

## Professor Philip James International Obesity Task Force

Professor James spoke on his experience of presenting to government the report 'Healthy English Schoolchildren: A new approach to physical activity and food'.

When presented in 1997 to the then minister for public health, Tessa Jowell, the report was not taken up as an official policy document, and Professor James speculated on the reasons for this.

One of the key areas that Professor James suggested as a sticking point for the implementation of his recommendations was the critical stance that the report had taken to corporate food promotions in schools. Senior policy makers, he said, had expressed doubts about evidence that such promotions encourage consumption of an unhealthy diet. Professor James suggested that this topic should be a key focus for future policy research and action.

From his experience, Professor James stated that nutrition is always an issue hotly contested between public health professionals/policy makers and the food industry. The food industry in general, he said, has resisted nutrition being included in the remit of public health agencies. Professor James wrote the White Paper, commissioned by the Labour Party, which led to the setting up of the new UK Food Standards Agency. In the paper he maintained that nutrition must be a central part of the Agency's work – broadening its scope beyond a narrow food safety focus. (This has subsequently occurred – see the contribution from Tom Murray, on page 43 of this document.)

### Recommendations for future work

Professor James made recommendations to the meeting for general principles that should guide future action to ensure better nutrition for children. These included:

- That policy research and proposals should be brought more into the public arena, and should always be the subject of public scrutiny;
- That there should be more international networking on key issues of mutual concern, for policy makers and NGOs working on health issues;
- That the media should be engaged in the policy process and kept informed of all stages of policy making, including draft proposals, research and final policy statements;
- That all policy measures proposed by government and non-governmental organisations must be grounded in research and strong evidence demonstrating the need for policy action.

Professor James's report 'Healthy English Schoolchildren: A new approach to physical activity and food' helped inform the present Children's Nutrition Action Plan, including recommendations for policy measures to improve children's health.

The International Obesity Task Force, 231 North Gower Street, London NW1 2NS.

## Jeanette Longfield

## Sustain: The alliance for better food and farming

We often say that children's diets are bad, and that they will lead to poor health, but how good is our evidence for this?

Many public health initiatives focus on children's nutrition, based on a number of assumptions, including:

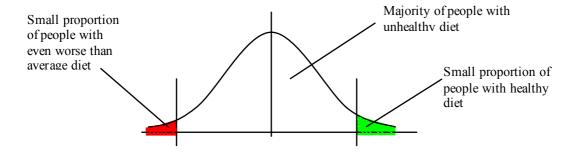
- That chronic diseases such as diabetes and heart disease in adult life are first established through childhood eating habits;
- That childhood eating habits will pre-determine adult eating habits;
- That educational influences such as nutrition education and learning cooking skills will encourage healthy eating in adult life;
- That changing children's eating behaviour will also affect family food choices for the better

Evidence to support these assumptions is sometimes shaky, and as campaigners for better public health we should work to consolidate the best evidence and the most effective arguments. With a food industry adamant that sugary, fatty and salty foods are not at the root of bad health, we need to ensure that our arguments are robust.

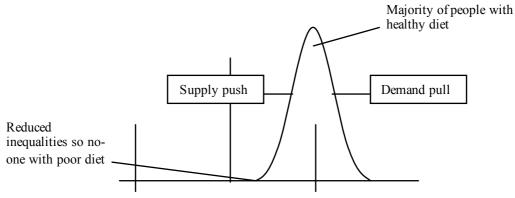
The best evidence for focusing on children's diets is that the typical diet of UK children is bad for dental health. There is also good evidence for diet being linked with the rising rates of obesity in children.

But we should not forget that children are a subset of the population, and that the population as a whole is eating an unhealthy diet. Although evidence seems to suggest that children are eating the worst diets of all, a normal distribution curve of UK diets indicates that policy measures to shift the curve must be taken with the entire population, not just parts of it. By focusing too much on children, we risk giving adults the impression that health is preordained by dietary habits in earlier life, and this may lead them to 'give up trying'.

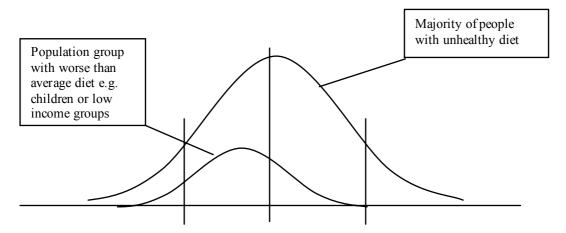
## Whole population and specific groups – shifting the distribution curve



Normal distribution curve showing current state of average UK diet



Narrow distribution curve showing where UK diet should be



Trying to shift the whole distribution curve by focusing on a sub-group may not work.

#### Recommendations for future work

If we accept that children's diets are a matter of concern, and evidence from the National Diet and Nutrition Surveys suggests that this is the case, then there are two distinct areas in which we will be likely to be able to exert influence – the areas of supply and demand.

- On the supply side, we need to crack the issue of school food, creating whole-school food environments conducive to healthy eating. Policy measures include changing the ethos of school food, with better eating environments and policies on school vending machines as well as meals. The strongest case is for the improvement of nutrition in primary schools.
- On the demand side, we need to address food advertising to children, and change the food culture that defines 'children's food' as sugary, fatty and/or high in salt.

We should also be aware of other factors affecting food choices, and the opportunities these present for effective action. In this respect, the nutritional status of young men may be an important policy focus. Culturally, the food choices that young men make may influence their peer group, teenagers and children more than parents or education. Currently, however, young men are overlooked in many public health nutrition initiatives.

There will also be important opportunities for influence in the new Nutrition Stakeholder Forum of the Food Standards Agency. It is not yet clear what the remit of this forum will be, who will be appointed as chair, and what its first tasks and priorities will be.

Sustain: The alliance for better food and farming, 94 White Lion Street, London N1 9PF.

## Paul Lincoln National Heart Forum

The National Heart Forum has launched a <u>young@heart</u> campaign to promote a healthy start for a new generation. The initiative is driven by the commitment that 'every child born today in the UK should be able to live to at least the age of 65 free from avoidable heart disease'.

Following the Children's Nutrition meeting, the National Heart Forum hosted a <u>young@heart</u> Summit to seek views from health professionals, academics and public health campaigning organisations. Participants debated a draft policy framework setting out recommended actions, and proposed milestones and mechanisms for monitoring progress. Policy recommendations were put forward under key headings:

- A National Plan for Children and Young People's Health, including the creation of a Children and Young People's Unit in the Cabinet Office and the establishment of strategies for England, Wales, Scotland and Northern Ireland to promote physical activity and healthy eating and discourage smoking in young people.
- Commercial and retail, including the introduction of legislation to control advertising and promotion of foods high in fat, salt and sugar to children; the development of concordats between government and food retailers to support the production and promotion of healthier foods and drinks for children; and a code of practice for promotional activities of the food industry in schools.
- **Investment for health**, including a review of the definition of poverty; ending age discrimination in benefit levels for single parents; providing national funding for breakfast clubs; and ring-fencing funds to promote child heart health at community level.
- Local community, including the integration of Health Improvement Plans and Community Plans; involving children and young people in Local Strategic Partnerships; providing methodologies and guidance for conducting local health impact assessments; conducting an annual 'well-being' report.
- **Professional training**, including increasing the number of community dietitians; providing training and dedicated resources to health visitors, Sure Start and Connexions workers; introducing national standards for the roles and responsibilities of midwives, health visitors and school nurses; and making child development and PSHE mandatory subjects in the core teacher training syllabus.
- Research, monitoring and development, including reviewing the Welfare Foods Scheme according to proposed new public health standards; assessing the value of investments in child health, such as school meals, for child and adult health, and highlighting results as a cost-saving measure for health services; and linking new public health standards to minimum benefit levels.
- **Schools**, including extending the national school fruit scheme to all primary school children; introducing cashless or 'smart card' systems to reduce the stigma of free school meals; introducing a voluntary code of practice for schools on all food provided in the school environment.

The National Heart Forum, Tavistock House South, Tavistock Square, London WC1H 9LG.

# Jenny McLeish *Maternity Alliance*

We cannot have healthy, well-nourished children unless we first have healthy, well-nourished women. A child's health begins before birth and is influenced by the mother's nutrition during pregnancy and also her nutrition before conception.

Good nutrition before and during pregnancy, and the avoidance of smoking, can reduce the risk of the baby being born at a low birthweight (below 2500g, or 5½ lb). Birthweight is a key predictor of the future health and wellbeing of the child with low birthweight babies being 40 times more likely than heavier babies to die in their first month, and 10 times more likely to die in their first year. Low birthweight is also associated with an increased risk of disabilities, brain damage, Special Educational Need, and chronic conditions in adulthood.

Low birthweight and its risks for child health and development are essentially a matter of inequalities, since a baby born to a couple in Social Class V is 60% more likely to be born at a low birthweight than a baby born to a couple in Social Class I. The baby of a lone mother is twice as likely to have a low birthweight.

## Issues for pregnant women living in poverty

The current level of means-tested benefits for out-of-work families is demonstrably too low to support a healthy diet of the kind that midwives recommend for pregnancy.

- The 'average' cost of a realistic and nutritionally adequate diet for pregnancy is £20.75 a week.
- A single pregnant women aged 18-24 receives £42 a week in benefit income, so would have to spend nearly half of her weekly income on food to eat an adequate diet. Women over 24 receive a higher weekly income (but still inadequate to meet the dietary costs) and young women aged 16 or 17 receive much less (and indeed, many do not qualify for benefits at all).

Age of single woman	Weekly benefit income	Proportion of income required for adequate diet
25+	£53.03	39%
18-24	£42	49%
16-17	£31.95	65%

• In fact pregnant women receiving Income Support spend on average just £15 a week on food – a 25% shortfall.

### Recommendations for future work

- End age discrimination in the benefits system against women under 25 and particularly teenagers
- Ensure all young pregnant women in need have access to benefits.
- Increase benefits during pregnancy to a level adequate to support a healthy diet. This could be done by adding a premium to means tested benefits during pregnancy, or starting the Integrated Child Credit from confirmation of pregnancy not birth.

- Improve the **Welfare Foods Scheme** (which currently gives pregnant women receiving means-tested benefits access to some free vitamins (A,C,D) and tokens for a pint of milk a day).
  - ♦ The milk tokens could be converted into more flexible food tokens. The Women, Infants and Children (WIC) programme in the U.S. shows that comprehensive nutritional support (via tokens for a range of nutritious foods) reduces the incidence of low birthweight and thus saves health service expenditure \$3 health costs saved for every dollar spent on WIC.
  - ♦ The limited vitamins available should be expanded to a wider range of vitamins and minerals associated with positive pregnancy outcomes.

## Issues for early pregnancy and pre-pregnancy nutrition

This is a problematic period for intervention because an estimated 40% of pregnancies are unplanned, and a woman does not know she is pregnant in the earliest weeks. Intervention that starts only from confirmation of pregnancy will therefore miss a critical period for the developing child. The Acheson Report of the *Independent Inquiry into Inequalities in Health* (1998) acknowledges the need to adopt an intergenerational approach to tackling the cycle of poverty and poor nutrition, and to invest in the health and nutrition of girls and young women since they will be the mothers of the future. The school years are a key opportunity to improve the health of young women.

#### **Recommendations for future work:**

- **Benefit levels** should be set at a level to reflect a theoretical pregnancy, using one of the minimum income standards models to ensure that all out-of-work families have access to an adequate diet.
- Improve disadvantaged women's access to good quality, affordable fresh food by supporting **community food projects**.
- Improve quality of food by imposing a legal obligation to **replace nutrients** lost in the processing of food (e.g. white flour).
- Make comprehensive health information available to all women planning pregnancy.
- Make welfare foods available on request to out-of-work women planning pregnancy.
- Improve **nutritional standards of school meals**. Stronger guidelines are needed specifying serving sizes and nutrient content, perhaps on the U.S. model where meals must be consistent with the Recommended Dietary Allowances (RDAs) for specific nutrients.
- Ensure **universal access to school meals**. Address the problem of nutritionally inadequate packed lunches brought in from home. Research whether parents find school-prepared food unsatisfactory or too expensive and what would encourage higher take up.
- Improve **school teaching of nutrition** and cooking skills.
- Take action to reduce eating disorders.

The Maternity Alliance, 45 Beech Street, 5<sup>th</sup> Floor, London EC2P 2LX.

## Mary Daly Senior Health Visitor

Health visitors see every parent in the UK – they are a crucial first point of contact for new parents on a wide range of health issues. Yet health visitors receive no nutritional education during their training, and this training has recently been reduced from 53 weeks to 32.

Health visitors do, however, receive a great deal of attention from industry, which sends gifts and accessories promoting their products – diaries, pens, calendars, etc. – which get passed on to parents. Products such as follow-on milks get this kind of attention and endorsement, and we are told by the dairy industry that babies should have a pint of milk a day. Yet there are plenty of highly nutritious foods that babies should actually be eating.

Other examples of confusing messages concern the 'tooth-friendliness' or otherwise of flavoured drinks marketed as suitable for children; and the plethora of 'organic' products that may or may not be healthier for children.

How are health visitors to differentiate between good health advice and that put about by food companies? Health visitors receive no training about the public health implications of such marketing.

### Recommendations for future work

- We need clear messages and nutritional advice that can be communicated simply to parents, backed up by legislation. For example, the message on weaning that no solids should be given until a baby is four months old has got through to the general population. A clear message, and legislation governing the labelling and ingredients of weaning foods, means that behaviour has changed for the better.
- Everyone working on food and nutrition should be 'singing from the same hymn sheet' not contradicting each other with conflicting and frequently changing advice.
- We need to broaden the debate away from the science of nutrition to how we live our lives taking into account what foods and opportunities are available to help us develop nutritional advice that can be taken up by parents.
- We need to look at ways we can encourage people to share information and support each other to recreate the sense community that supports a healthy food culture.

Central Hendon Clinic (Rear of the library), The Burroughs, Hendon, London NW4 4BH

## Joe Harvey

## Schools Nutrition Action Groups and the Health Education Trust

In many schools, and for too many years, the delivery of the food service and the elements of the curriculum concerned with food and nutrition have been quite separate operations carrying different messages. Indeed the food service itself might be a disjointed, ad hoc affair without a considered policy or shared objectives.

## New government initiatives

Nearly three years ago David Blunkett announced a determination to secure the future of the school meals service and upgrade its quality. Today we are seeing the implementation of major changes to that service – the most radical since 1980 (when nutritional standards and the requirement for LEAs to supply a paid meals service were removed).

- **Minimum nutritional standards** have been established, taking effect from April 1<sup>st</sup> this year. Though not as rigorous as some would like, they do require a balance and variety to be available on all menus and take children's tastes into account.
- A duty to provide a paid meals service is also now imposed. Without this there is little doubt that the concept of a universal school meals service would have disappeared rapidly over the next few years as the trickle of local authorities opting out grew to a flood.
- The delegation of school meals budgets means that all secondary schools now hold the budgets for the provision of meals, primary and special schools can have that delegation on request.

Taken together these initiatives offer exciting opportunities for schools to create a quality catering service, in tune with the messages coming from the taught curriculum and supporting the pastoral, welfare needs of pupils. Schools are now accountable, no longer able to argue that there is nothing they can do about a poor or inappropriate service. Good catering will always be an additional attraction to parents and children, and where it is not in evidence, the more perceptive may well ask themselves what else about the school is not up to standard?

## School food policy – the engine for change

An increasing number of schools are adopting whole school policies on food and nutrition developed through the medium of a SNAG (school nutrition action group). This school-based alliance of teachers, pupils and caterers, supported as appropriate by health and education professionals, not only ensures a holistic approach but also involves young people in decision making about the services they use.

### Why should school management get involved?

The obvious answer is that without their active, enthusiastic engagement it is very difficult for a good catering service to operate, there are too many areas under head-teacher control which directly effect the eating experience for pupils such as:

- Time-tabling of the lunch hour to allow for a civilised eating environment;
- Well-planned pupil centred administration of service including high quality supervision;
- Whole school approach ensuring messages from the curriculum and the food service are in tune and that the food service supports the pastoral welfare of the school.

However there are other, perhaps stronger reasons for food and nutrition moving further up a schools list of priorities. Increasing evidence is showing very positive links between children who are well fed and improvements in:

- Teaching/learning;
- Pupil attendance;
- Pupil behaviour;
- Marketing of the school in the community.

In addition there is no doubt that the process of implementing a 'school food policy' offers wonderful opportunities to associate with best practice by; involving children in decision making, linkage to the HPSS scheme, and showing appropriate congruence between policy and practice.

### Government action needed

#### **New investment**

Having transferred accountability, the government needs to indulge in a little 'levelling of playing fields'. Twenty years of savage under-investment means that many school kitchens and dining areas are in serious disrepair. Catering equipment may be totally inadequate to meet the demands of new practices – plenty of capacity to deep-fat fry, but little or none to grill or bake. Local Education Departments who took advantage of deregulation in 1980 to destroy the universal entitlement to a *paid meals* service and strip out their school kitchens now leave those schools with a major problem – they have a 'duty to provide' but none of the necessary facilities to do so. It is therefore essential that money is made available to bring the worst schools up to an acceptable standard that enables them to meet the statutory requirements now being made on them.

## Free school meals

These meals are a crucial benefit to those families entitled to them, yet there is a disturbing gap - almost 20% averaged across the country - between entitlement and take-up which increases with the age of the child. Though stigma, usually exacerbated by insensitive administration, is certainly one cause of this, others shown as significant by pupil surveys are the quality of the food, the eating environment, and customer service.

There may now be minimum nutritional standards but as yet there are *no minimum standards* for the value of a free school meal which vary widely from as little as 85p to as much as £1.50. There are a number of reasons to argue for change:

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

To provide a two-course meal and a drink of acceptable quality the government needs to regulate for a minimum value of a free school meal at:

- £1.50 secondary:
- £1.30 primary.

### Water, water, everywhere and...

It is the shameful truth that the majority of our schools have a lack of facilities for offering access for children to drinking water – a situation that is Dickensian. It is the case that:

- Well over half of all pupils must put their mouths around a tap in the toilets or drink from cupped hands how many of their teachers or parents would tolerate such conditions in their workplace?;
- Most schools forbid water bottles in the classroom and do not allow the child to leave a lesson for a drink:
- Almost 10% of schools have no drinking facilities at all.

Access to palatable drinking water is a basic human right and the government must move quickly to ensure our schools supply this simple but very vital resource.

### The Role of Ofsted

There is one other crucial obligation for the government to address. The National Healthy Schools Standards programme with 'whole-school approaches' and 'inclusion' as key components, emphasises the importance of creating policy to ensure a seamless connection between the curriculum, the pastoral welfare system and the school food service. It is essential that Ofsted checks that such policy is in place as a standard element of inspections, in order to:

- Set a universal level of expectation for head teachers and governing bodies to address;
- Make it abundantly clear that the definition of a successful school is wider than the league tables of SATs results and GCSEs grade A-C.

### Conclusion

The government's initiatives on food and nutrition in schools were timely and are to be applauded. However they will not achieve widespread benefit [and may well cause some real hardship] unless they are tidied up. With a modicum of additional regulation and some robust indication of the importance they attach to this agenda so much more will be achieved.

Joe Harvey is the Director of the Health Education Trust which has recently published a comprehensive guide to establishing a school food policy, The Chips Are Down – for health, education and catering professionals and all those with an interest in children's nutrition in school. To obtain a copy, send a cheque for £15 to: The Chips Are Down Account, Health Education Trust, 18 High Street, Broom, Alcester, Warwickshire B50 4HJ.

School Nutrition Action Groups, Health Education Trust, 18 High Street, Broom, Alcester, Warwickshire B50 4HJ.

## Judy More

## Paediatric Group of the British Dietetic Association

Judy More of the Paediatric Group of the British Dietetic Association pointed out the importance of drinking-water provision in state primary and secondary schools in the UK, and the apparent poor awareness amongst teachers of the need for good fluid intake for health. Material on this topic was submitted for inclusion in the report of the meeting.

A Water in School is Cool campaign has been launched by the Enuresis Resource and Information Centre (ERIC), focusing on water as the best and most practical option at school for improving children's fluid intake (although break-time milk in infant schools also makes a contribution to total daily fluid needs).

The Water in School is Cool campaign was first launched by ERIC in October 2000, to coincide with the publication of independent ERIC-initiated research looking at drinking facilities in two education districts, carried out in 1995 by the Royal College of Paediatrics and Child Health. The Campaign was initiated in response to the concerns of health professionals who treat children with bed-wetting and daytime wetting – where low fluid intake often contributes to the maintenance of these problems.

Research showed a variation in the quality and access to drinking water. Ten per cent of schools surveyed had no drinking facilities at all- and where facilities did exist they were usually situated in the toilet areas, often the scene of boisterous and threatening behaviour, as well as being an unhy gienic place to drink. ERIC has since been sent the results of further local studies from around the UK which show a similar or worse picture.

### Common problems include:

- Poor access to drinking fountains;
- Drinking fountains being difficult to drink from;
- Facilities being considered dirty or culturally inappropriate;
- Drinks brought from home (including bottled water) being discouraged;
- Where vending machines exist, they rarely offer water or healthy soft drinks.

ERIC is distributing posters and fact-sheets to school nurses nationally, and asking them to raise the issues around fluid intake in their local schools. The importance of adequate fluid intake should be recognised in all programmes considering children's nutrition.

The national Water is Cool in School Campaign aims to improve the quality of provision and access to fresh drinking water for children in UK primary and secondary schools. The Campaign was launched in September 2000 by ERIC (The Enuresis Resource and Information Centre), the UK children's medical charity that provides information, advice and support on childhood bedwetting, daytime wetting, constipation and soiling for families and health professionals.

Enuresis Resource & Information Centre, 34 Old School House, Britannia Road, Kingswood, Bristol BS15 8DB. Tel: 0117 960 3060; email: info@eric.org.uk Web: www.eric.org.uk; and: www.wateriscoolinschool.org.uk

## Professor Fergus Lowe School of Psychology, Bangor University

Left to their own devices, most children would end up eating an unhealthy diet, and would leave out most fruit and vegetables from their diets. If we don't do something to intervene, then children are left in the hands of the food manufacturing and marketing companies, and the transnational corporations. The widely voiced council of despair is that this is how it is, and we can't do anything about it.

The work of the Bangor Food Research Unit, however, is showing that something *can* be done to bring about lasting change in children's diets. Bangor has provided the evidence for this – showing that through a specially prepared and controlled programme it is possible to get children to choose fruit and vegetables, and to do so permanently.

A key element of the programme is to show the children older role-model heroes who love good food. These video heroes fight junk – and our heroes always win. Another key element of the programme is the use of small rewards to get the children to taste the fruit and vegetables and to come to like them. We also work to give the teaching staff confidence, to set up a culture of support for the programme.

The results of the programme are impressive and reliable. Summaries of some of the achievements can be found on the attached document, headed 'Increasing children's consumption of fruit and vegetables'.

What we have also found is that changes in the children's behaviour have an effect on their eating habits at home, and on the eating habits of their families. Schools also report huge enthusiasm for the project, with knock-on effects for other areas of the curriculum – maths, science and writing.

Our message is that children can be influenced to eat more healthily.

A handout that Professor Lowe circulated to delegates is included on the next three pages.

School of Psychology, University of Wales (Bangor), Brigantia Building, Penrallt Road, Bangor LL57 2AS.

#### BANGOR FOOD RESEARCH UNIT

## Increasing Children's Consumption of Fruit and Vegetables

Although it is recognised that eating fruit and vegetables is vital for health and well-being, we in the UK do not eat enough of these foodstuffs; children, in particular, especially the poorest, avoid them. An exciting advance in helping peopleto improve their diets has emerged from scientifically rigorous research carried out over the past nine years by psychologists at the Bangor Food Research Unit. They have perfected a learning programme that greatly increases the quantity and range of fruit and vegetables that children will consume as part of their regular diet.

The new Health Eating at School project builds on this success.

Overall Aim: to increase the consumption of fruit and vegetables throughout the UK

#### O bje cti ves:

- to adapt the programme so that schools can implement it autonomously and cost-effectively
- to monitor the effectiveness of the new programme in schools in different parts of the country
- to establish the necessary conditions for the programme's subsequent introduction into primary schools throughout the UK.

In a remarkable alliance, this project brings together universities, the food industry, Government and voluntary organisations – all in a common cause to improve children's diets.

There is now strong evidence that eating a diet rich in vegetables and fruit significantly reduces the risk of coronary heart disease and protects against many cancers. Official reports from bodies such as the World Health Organisation, the Committee on Medical Aspects of Food policy, the Scottish Office and the Welsh Office have all recommended that we eat more of these foodstuffs. Despite the health message, the UK has one of the lowest fruit and vegetable intakes in Europe. Although advice to the general public is to eat at least five portions of fruit and vegetables a day (i.e. at least 400g per day per adult), current British consumption levels are estimated to average only 245g per person per day, and in some age and social groupings, the real figure is substantially lower. As a consequence, Britain now has one of the worst heart disease records in the world, and other diet-related health problems such as obesity are on the increase.

Given that 'Many of our attitudes to health and the influences on our lives are set in childhood' and that research suggests children's food consumption patterns are established early in life, it is clearly important that any attempts to produce long-term improvements in the nation's diets should start with children.

#### ORIGINAL RESEARCH

Over several years, the Bangor Food Research Unit, under the direction of Professor Fergus Lowe and Dr Pauline Horne, has pursued extensive research designed to identify key psychological factors influencing children's food choice and, on the basis of that knowledge, to devise an intervention enabling children to enjoy eating healthy diets. More than 450 children between the ages of 2-7 years took part in studies conducted in homes, schools and nursery settings, and a learning programme was perfected. (This work was funded by the ESRC, Unilever and the University of Wales.) The programme incorporates two key elements; First, video adventures featuring hero figures who like fruit and vegetables and provide effective social models for the children to imitate. Second, small rewards (e.g., stickers, badges, pencils) to ensure the children begin to taste the foods. All studies confirmed that the programme brings about major and long--term increases in children's consumption of fruit and vegetables.

- In one of the home-based studies with 'fussy eaters' (aged 5-6 years), children's consumption of targeted fruit rose from 4% to 100%, and of targeted vegetables from 1% to 83%. Targeted fruit consumption was still at 100%, and vegetable consumption at 58%, when the children were observed again six months later.
- In day-care nursery settings results were equally impressive. In one study, for example, lunchtime vegetable consumption rose from 20% to 89% and, in the case of fruit, from an initial 17% to 76% fifteen months later.
- In primary-school settings, the effects on children's diets were similarly strong and long lasting. Even when popular sweet and savoury snacks were presented alongside the fruit and vegetables, fruit consumption of 5-6 year olds more than doubled from an initial level of 28% to 59% six months later, while vegetable consumption rose four-fold, from 8% to 32%.
- Successive studies demonstrated that these positive effects were not limited to foods experienced during the programme, but spread to a wide range of other fruit and vegetables.
- Similarly, the positive effects were found to be general across contexts. For example, in the case of the school studies, it was found that the effects extended beyond the school context into the home environment and, in the nursery setting, from snack-time to lunchtime.

### HEALTH EATING AT SCHOOL PROJECT

A new large-scale project (begun in January, 1999) aims to develop the learning programme as a self-contained whole-school package that can be administered autonomously by primary schools themselves across the full age range of their pupils. The project is funded by the Horticultural Development Council, the Fresh Produce Consortium, ASDA, the Co-operative Wholesale Society, Safeway, Sainsbury's, Somerfield, Tesco and Birds Eye Wall's and is monitored by a Steering Committee that includes representatives from the Departments of Health and Education, the Ministry for Agriculture, Fisheries and Food and the Food Standards Agency.

New procedures and materials, including videos and educational materials, have been developed and tested in primary schools in Harwell (Oxfordshire), Bangor (Gwynedd), Salford (Manchester), Brixton (Lambeth) and Stockwell (Lambeth); over 1,00 children aged 4-11 have participated. The Stockwell school acted as a control school in which fruit and vegetable consumption without the learning programme was measured. In all schools children were presented with fruit and vegetables at lunchtime and fruit and/or vegetables at 'snack-time' (immediately prior to morning break). The learning programme was then introduced in those schools selected for the intervention, and in all of them this resulted in very significant increases in pupils' fruit and vegetable consumption. For instance, in Harwell, at snack-time it rose from 47% to 83% for fruit and from 37% to 77% for vegetables, and at lunchtime, from 46% to 82% for fruit and from 29% to 84% for vegetables. Some of the largest percentage increases were seen in the most socially deprived areas. For example, in Salford, lunchtime consumption of fruit increased by 150% (to 38g) and of vegetables by 315% (to 33g). Similarly, in the Bangor and Brixton schools there were substantial increases in consumption, particularly at lunchtime. On the other hand, in the Stockwell control school, where the learning programme was not introduced, no increases in fruit and vegetable consumption occurred either at snack-time or lunchtime.

Parents responded very positively to the programme. Almost all those who completed a post-intervention questionnaire said they believed their children had benefited from taking part in it. Over 80% reported that their child had started to eat more fruit and vegetables at home and most of these also said that their child had asked them to buy additional fruits and vegetables. Teachers were equally enthusiastic, not only because of the programmes' beneficial effects on pupils' diets, but also because it boosted pupils' interest in related aspects of the curriculum and increased school attendance. An important feature of the programme is the provision of a Food Dude Educational Materials pack designed to assist teachers to achieve national curriculum targets in English, mathematics and science, drawing upon the enthusiasm generated by the programme. (For additional

details of these studies, see the BFRU document Changing the Nation's diet: A Programme to *Increase Children's Consumption of Fruit and Vegetables*; no. 2)

The results of the pilot studies indicate that the procedure is suitable for introduction into primary schools through the UK and will bring about substantial increases in their pupils' consumption of fruit and vegetables. This would have major health and other benefits for these children and their families, particularly in helping to prevent coronary heart disease and cancer. Because the programme will be especially valuable for those children from lower socio-economic groups who are in most need of dietary improvements, it should also help to significantly reduce health inequalities across the country.

#### REFER ENCES

- 1. At Least Five a Day Strategies to increase vegetable and fruit consumption. London: National Heart Forum/ The Stationery Office.
- World Health Organisation (1990). Diet, Nutrition and the Prevention of Chronic Diseases. Technical Report Series: 797. Geneva: WHO.
- 3. Department of Health (1994), Nutritional Aspects of Cardiovascular Disease, Report of the Cardiovascular Review group, Committee on Medical Aspects of Food Policy, Report on Health and Social Subjects 46, London: HMSO.
- 4. The Scottish Office (1993). The Scottish Diet. Report of A Working Party to the Chief Medical Officer for Scotland. Edinburgh: The Scottish Office Home and Health Department/HMSO Scotland.
- 5. Welsh Office (1997) The Secretary of State's Speech to the Institute of Health Service Managers Conference.
- 6. Welsh Office (1997). Better Health Better Wales.
- MAFF (1997). National Food Survey, 1996. London: HMSO.
   Health Education Authority (1995). Obesity in Primary Health Care: A Literature Review. London: Health Education Authority.
- 9. Department of Health (1998). Our Healthier Nation: A Contract for Health. A consultation paper. Command Paper Cm3852. London: The Stationery Office.
- 10. Gifff, H.; Washbon, M. & Harrison, G. (1972). Nutrition, Behaviour and Change. New Jersey: Prentice-Hall.
- 11. For more detail see, for example:
  - Home, P.J.; Lowe, C.F.; Fleming, P.F.J. & Dowey, A.J. (1995). An effective procedure for changing food preference in 5-7 year-old children. Proceedings of the Nutrition Society, 54, 441-452.
  - Home, P.J.; Lowe, C.F.; Bowdery, M.A. & Egerton, C. (1998). The Way to Healthy Eating for Children. British Food Journal, 100:3, 133-140.
  - Lowe, C.F.; Dowey, A.J. & Horne, P.J. (19980. Changing what children eat. In Murcott, A. (Ed) The Nation's Diet: The Social Science of Food Choice. London: Longman, pp. 57-80.

## Tim Marsh UK Public Health Association

Note: prior to his appointment with the UK Public Health Association, Tim Marsh worked for Child Poverty Action Group on their School Meals Campaign. His presentation at the Children's Nutrition Action Plan meeting focused on that campaign.

One in three schoolchildren in the UK – around 2.8 million – currently live in poverty. Yet only about 1.8 million children are entitled to a free school meal.

### Who is entitled to free school meals?

- All children whose parents are in receipt of income support or income based Jobseeker's Allowance are entitled to free school meals
- 1.8 million children in the UK, of which 1.4 million children are in England (18%)

Of the 1.8 million children eligible for free school meals, around 300,000 (20 per cent), for a variety of reasons, do not take up their entitlement. There are, therefore, around a million children living in poverty who do not get a free school meal.

Every child, irrespective of income level, should have access to a satisfying and nutritious meal during the school day. As this publication shows, many children are missing out on this meal and many low-income families face financial difficulties to ensure their children eat a proper lunch. Child Poverty Action Group believes it is unacceptable to put children and families in this position and urges the Government to remedy this situation.

In March 1999, in response to both research showing that so many children were missing out on a vital meal and to the Acheson report on health inequalities, Child Poverty Action Group launched a campaign, 'Free School Meals for children who need them'.

## The Child Poverty Action Group School Meals campaign has three aims:

- The extension of entitlement to free school meals to all families receiving new tax credits
- The maximisation of the take up of free school meals
- The introduction of minimum nutritional standards for school meals and the development of nutritional education in schools

In implementing policies to improve the take-up of free school meals, it is vital to tackle the reasons why take-up remains low. Progressive policies, such as the establishment of minimum nutritional standards for school meals, will be undermined if a third of a million of the poorest children do not make it to the dinner queue.

Research shows that there are a number of reasons for the non-take-up of free school meals.

- Stigma
- Quality and choice of food on offer
- Environment
- Awareness of entitlement

In some areas, take-up is worse than others. In some London boroughs over one third of schoolchildren miss out on a school meal to they are entitled. Secondary schools in the North

East also show high rates of non-take-up - as high as 40 per cent. That so many children who live in poverty are not eating such an essential meal should be of concern; given that one in four children do not get a hot dinner the evenings, many are missing out on their main hot meal of the day.

### Recommendations for future work

CPAG welcomes the promising first steps taken by the Government to address the issue of free school meal provision. The mandatory nutritional guidelines are cause for optimism. However, there are additional policies that should be considered.

- Extending eligibility for free school meals to the children of all parents receiving working families tax credit and disabled persons tax credit. As a bare minimum, the Government should acknowledge that all those children from working families on or below the poverty line should be 'passported' onto free school meals.
- The Government should lead a campaign to increase the take-up of free school meals by children already in the system. New research is required to reveal the full picture surrounding stigma, ill health, school exclusion and other causal factors contributing to non-take-up.
- The Government should consider making the reduction of non-take-up a performance indicator for all schools. Finance for free school meals should be given to the school at the start of the academic year, based on entitlement rather than take-up. It should be ringfenced, with any cash not spent because of low take-up used for a school take-up campaign.
- Once best practice on free school meals provision is identified, a government agency (such as OFSTED) should be charged with ensuring that all schools adhere to procedures that avoid stigmatising free school meal children and to the nutritional standards in force from April 2000.

UK Public Health Association, 94 White Lion Street, London N1 9PF.

Child Poverty Action Group, School Meals Campaign, 94 White Lion Street, London N1 9PF.

## Polly Munday Community dental health department

### The national school fruit scheme

Health in early life is the foundation for health throughout life, and improving nutrition is fundamental to reducing inequalities in health. Improving access to healthy food for children is particularly important.

Through the National School Fruit Scheme, schoolchildren aged between four and six will be entitled to a free piece of fruit each day. In Autumn 2000, three pilot schemes were launched in Health Action Zones (Lambeth, Southwark and Lewisham). By spring 2001, 20 areas had joined the scheme – involving hundreds of schools.

The aim of the pilot schemes was to identify the most effective ways of organising each operational stage for the scheme, creating the best options for the school. Free Fruits for Schools preliminary findings are now available.

In the Lambeth, Southwark and Lewisham Health Action Zones, local information gathering included looking at the dental disease experience of five-year-olds attending local schools. Dental decay is associated with poor nutrition and diets high in non-milk extrinsic sugars.

The initial evaluation was based on measuring changes in consumption from baseline consumption patterns. There was flexibility in the way the fruit was delivered to the children – through breakfast clubs, healthy tuck shops and fruit offered free to be taken home for siblings. The schemes also had to be inexpensive to run, with a variety of high quality fruit on offer.

## Free Fruit in Schools: Summary of preliminary findings

We have been running a fruit scheme since June 2000. We plan to have nine more schools participating in the autumn and more in the spring. We will be writing practical guidelines and evaluating the schemed properly. However, this is an interim report, which may help others to set up schemes.

- **Lead-in time:** The time taken to set up the scheme should not be underestimated. Allow yourself plenty of time before you send one banana into a school!
- The evidence: A paper is available but there are many sources of information around.
- **The local picture:** Try to gather information on your local population. Include the rate of free school meals and use dental health records (associated with poor nutrition) e.g. percentage decay and DMF.
- The school: Link with the school. Visit the school and listen to what they want. Consider: Manageability; Storage; Acceptability of fruit; Quality; Health promotion. Make sure you meet with the co-ordinator, school nurse, food technology teacher and school cook.
- **The supplier:** You can use school catering or link with local market traders. We literally went to market stalls and spoke with them directly.
- **Core group:** Set up a core group that will have representatives from school health service (e.g. school nurse), local authority, health promotion, dental health and local authority.

- **Funding:** The schemes are not expensive to run, and depend on whether fruit is delivered daily or weekly. We used funding from the health authority and Regeneration Unit of the local council.
- The fruit: Make it interesting! It can be used at breakfast clubs. Try to get a healthy tuck shop and fruit to go home to siblings. Exotic fruit such as mangoes or kiwis can be used for fruit tasting.
- **Promotion materials:** There are many different types. Try to get the children involved in competitions and poster designs.
- Evaluation: Be clear about your objectives. If you want to, evaluate nutritional benefits of the process or influencing eating patterns. We did get baseline consumption patterns before we started, but there are many ways to evaluate.

Note: There have also been moves to cascade the Free Fruit for Schools campaign down to the under-4s, through the Sure Start programme. The objective would be to start children eating fruit and vegetables at a very young age, especially in deprived areas.

Community Dental Health Department, GKT Dental Institute, Caldecot Road, London SE5 9RW

## Professor Aubrey Sheiham Action and Information on Sugars

### Sugars and oral health

Sugar is the litmus test of how the food industry works. If we are to challenge the current food culture, we must be much more sophisticated – both politically and scientifically – in our arguments and campaign work to improve children's nutrition.

In the Eurodiet debate, the food industry was represented by, among others, professors funded by the food industry, who helped to change the official dietary recommendations on sugar. The claim was that if children ate less sugar they would eat more fat, the so-called fat/sugar seesaw which has little scientific validity.

One of our strongest arguments for reducing consumption of sugars is that if children eat high levels of sugary foods, they will eat fewer vitamins and minerals. The effect will be nutrient dilution.

The relationship between sugars and dental health is one of the strongest relationships for any nutrient and disease. The approach we should adopt is one common to food and health policy: intervening at different points in the food chain. For example, changing the sugar supply in children's diets by formulating dietary guidelines for nurseries, schools, and for those in care, as has been done by the Caroline Walker Trust. This might mean giving less sugar to cooks in schools, which would lead to less sugar in the children's diets, leading to less tooth decay. The positive effects of this approach have been shown in nurseries in Brazil. This kind of intervention could also be introduced in schools in the Health Promoting Schools scheme – incorporating nutrition into the criteria used to judge schools with progressive health policies.

## References

- Caroline Walker Trust (1995) Eating well for older people. London: CWT.
- Caroline Walker Trust (1998) *Eating well for under-5s in childcare*. London: CWT.
- Caroline Walker Trust (2001) Eating well for looked-after children and young people. London: CWT.
- Rodrigues, C. S.; Watt, R. G.; Sheiham, A. Effects of dietary guidelines on sugar intake and dental caries in 3-year olds attending nurseries in Brazil. *Health Promotion International* 1999:14; 329-335.

Department of Epidemiology and Public Health, University College London Medical School, 1-19 Torrington Place, London WC1E 6BT.

## Iona Lidington Chuck Sweets off the Checkout

During the 1990s, Iona Lidington co-ordinated the highly successful 'Chuck Sweets off the Checkout' campaign in support of better nutrition for children. She quoted a representative from Mars confectionery who said that during the campaign, Mars had seen a 30% fall in sales of confectionery.

To draw upon the inspiration and effectiveness of the campaign, Iona Lidington offered key advice for those planning future campaigns to contribute towards future successful campaigns:

- It was a single issue that engaged people. It wasn't a huge issue, but people felt empowered;
- The success could be measured;
- There were already examples of good practice;
- It had public impact;
- It had media interest:
- The campaign was backed up with data (Gallup Poll and store data);
- The campaign used a nationwide network, so had the support of professionals and ordinary people and families.

### Recommendations for future work

We need to:

- Keep up the pressure don't let standards slip;
- Be 'market wise' pick up on the issue or issues of the day;
- Learn from success use what works:
- Engage in more dialogue with supermarkets;
- Find ways to use scarce resources to best effect for instance, targeting those people who have great influence: e.g. health visitors, head teachers, etc.

Community Nutrition Group, West Farm House, Harriotts Lane, Ashtead, Surrey KT21 2QE.

## Lizzie Vann *Baby Organix*

Lizzie Vann, director of the food company Baby Organix, asked:

- Can individual companies change the whole industry?
- Can there be carrots (incentives to change) as well as sticks (regulatory controls)?
- Who can push through change?

Lizzie Vann described the set-up and guiding principles of Baby Organix, which produces high quality organic baby and weaning foods. She said that Baby Organix had been set up as 'a beacon for change', with a strong campaigning message that food quality and high production values are of prime importance for the nutrition of babies and young children.

Baby Organix has worked to create and market quality products, set benchmarks, and make a lot of noise in the sector about the pursuit of the very highest standards of food. The company was set up as an ethical company, committed to including as much information on food labels as possible, including percentage labelling. The company was also committed to targets for formulation and principles of production, such as a commitment to using no flavourings. These principles have been adhered to partly in the belief that individual companies can drive change and protect standards. What are the signs of success of this approach? Baby Organix has been ridiculed, discussed, but ultimately *copied* by other food manufacturers.

In addition, evidence suggests that a lot of parents have been inspired to make changes, to cook for their babies, and to criticise current food products and to ask questions about what is in food marketed as suitable for babies and young children.

Baby Organix chose to use organic ingredients partly because, inherently, organic foodstuffs are better regulated, which leads to better food. The organic sector has grown enormously in the time that Baby Organix has been operating, and large-scale food interests are beginning to take an interest. Lizzie warned that the pre-eminence of organic quality could be under threat, with potential moves from the large-scale food industry to formulate their own organic standards to better suit their large-scale manufacturing needs.

Organic standards may well be eroded by these interests to include some of the ingredients (such as colourings and flavourings) and processes to reduce the nutritional content of foods for babies and small children, for the purpose of reducing production costs and boosting profits. Many food manufacturers, even brand names that we trust are already using cynical methods to do just this.

There opportunities for the food industry to contribute to better nutrition for children. There are positive nutrition campaigns to be supported – e.g., the 'five a day' message for fruit and veg. This kind of message offers an excellent opportunity to develop products and marketing initiatives that have 'win-win' outcomes for both commercial interests and public health.

The best possible help that government can offer to the food sector to improve nutritional quality, especially for children's food is to 'regulate, regulate, regulate'. We need standards to live up to; we lack a clear lead. Our goal must be to completely redefine children's food.

Baby Organix, Knapp Mill, Mill Road, Christchurch, Dorset BH23 2LU.

## Wendy Wrigley Co-operative Wholesale Society

#### Introduction

The Co-op is the largest consumer-owned co-operative in the world. It has over 1,100 stores nationwide (ranging from 500 square feet to 20,000 square feet) in two formats: convenience stores and supermarkets. Some 30% of stores are in 'striving' areas.

The Co-op bases its work on a consumer-driven agenda, and has launched a number of major projects to further the cause of responsible retailing. This work includes reports on consumer issues such as labelling and marketing, and freely available information such as reports on complaints and adjudications under the Co-op's code of labelling practice.

A number of labelling initiatives have been undertaken to give customers more and better nutrition information, and to make this information clear and meaningful. Other initiatives have included a programme of salt reduction and salt replacement in Co-op own-label foods.

#### **Food Crimes**

A series of radical enquiries has been launched into seven issues that the Co-op has dubbed 'food crimes'. Food and drink have become increasingly mechanised, processed, packaged and commercialised – not always with the best interest in mind of consumers, their families, living creatures and the environment. And not always to their benefit. As we enter the new century, the Co-op is calling on the industry to stop and take stock. Has commercialisation gone too far? What are we doing to the food we produce and what is the food we produce doing to us?

The Co-op's *Food Crimes* reports offer a consumer perspective on the ethics of modern food production. The seven crimes are:

- **Blackmail:** The insidious targeting of the public by global big business putting huge marketing muscle behind products that fail to fit healthy eating advice.
- **Contamination:** The unnecessary use of chemicals on the land and in livestock interference with nature's way.
- **GBH:** The disregard of animal rights to keep costs down or, even worse, to pamper our taste buds with so-called 'luxuries'.
- Vandalism: The destruction of the planet by intensification of food production systems.
- Cannibalisation: The practice of permitting animals to be fed with the remains of their own species or herbivores with animal by-products, or giving feed made from the blood of other animals.
- **Pillage:** The careless exploitation of countries, cultures and creeds by multinational concerns milking the so-called global economy.
- Fraud: The deliberate assault on the taste and appearance of our food.

The Co-op is committed to helping find solutions to the problems highlighted by the inquiry, and to identify actions for the Co-op, the industry in general, and the regulators.

## Blackmail

Of particular interest for the work of the Children's Nutrition Action Plan is the report *Blackmail*. It examines the exploitation of children by advertisers.

Key findings included that:

- 73% of children ask parents to buy sweets and crisps that they had seen advertised;
- 71% had bought something on the strength of a free gift or a special offer;

In an examination of TV commercials shown during children's viewing times, *Blackmail* found that between 21% and 58% of all commercials were for food products. A nutritional analysis of the advertised foods found that

- Between 88% and 99% of those foods were high in fat and/or sugar and/or salt;
- 53% of the foods were cakes, biscuits and confectionery.

Government advice states that fatty and sugary foods should form a maximum 7% of the diet.

The report states that there is strong evidence that the cumulative effect of this advertising helps to 'undermine progress towards national dietary improvement... by setting bad examples, particularly to children'.

## **Co-op Codes of Practice**

In response to this research, the Co-op has taken steps to address its own contribution to the marketing of foods to children. As first steps, it has stopped its own advertising of fatty, sugary and salty foods during children's TV viewing times, and is actively campaigning for the ITC to impose restrictions on such advertising. It is also calling for people and organisations throughout the food chain to follow its lead.

## The Co-op code of practice on advertising to children

- The Co-op will not advertise sugary/fatty and salty foods and drinks:
  - During key children's viewing hours on TV;
  - In specific children's titles;
  - Adjacent to children's pages in newspapers.
- Advertisements aimed specifically at children will not contain any sugary/fatty/salty foods.
- In advertisements aimed at adults for children (e.g. Back to School), one third will be 'eat more' lines as classified by the Balance of Good Health.
- Co-op Brand in-store demos will not demonstrate sugary/fatty/salty products aimed specifically at children.
- Co-op in-store theatre will not use high-profile character merchandising, including *TV Creatures*, to promote sugary/fatty/salty products/categories aimed at children.
- The Co-op will not encourage purchase of sugary/fatty/salty foods through free gifts.
- The Co-op will not use any cartoon characters, including *TV Creatures* on the packaging of sugary/fatty/salty foods.

## The Co-op's Children's Products Policy

- Appropriate nutritional balance compared with similar products particularly relative level of fat, saturates, sugar and salt.
- No pharmacologically active substance, e.g. caffeine, alcohol.
- Particular attention to additives and allergens.
- Addition of minerals and vitamins should be:
  - Consistent with similar regular products;

- Appropriate for the target age group (RDAs for children may be greater or lower than those for adults;
- Included only where they can deliver he claimed benefit in a serving size that can reasonably be expected to be consumed by the target age group;
- Free from inappropriate or spurious claims (for example 'a bag of crisps contains more vitamins than an apple'.

## Community and food co-operatives

The Co-op is also working to support community based and led initiatives to bring affordable food to 'food deserts'. It works in partnership with not-for-profit organisations run wholly or partly by volunteers. The Co-op offers practical support such as access to advice and training, help with fixtures and fittings, food discount cards for food co-ops, and distribution networks for community co-ops.

## Scottish Community Nutritionist project

In partnership with Greater Glasgow Health Authority and in response to the Scottish Diet Action Plan, the Co-op supported the Scottish Community Nutritionist project, for three years 1998 to 2000. A nutritionist was employed, working directly with the local community from a cluster of Co-op stores in Glasgow. The aim was to promote a healthier diet, particularly the increased consumption of fruit and vegetables.

A part of this work was the Get Cooking and Get Shopping resource packs which aimed to promote the development of cooking and shopping skills and to educate on nutritional label information. The packs were adaptable to all age groups and client situations and were promoted in store. Other initiatives included the Pam Pam Fruit Game targeting the under-5s; the Food Around the World project to encourage healthier cooking in secondary schools; and support for the Milton Food Co-op on management and the selection of a healthier range of foods.

The Co-op is looking at ways to extend the work in Scotland to a wider audience in a cost-effective way whilst continuing to support community groups in the areas in which it trades.

## **Community Food and Nutrition Fund**

This is a new £30,000 fund to help 'pump-prime' new and existing projects operating solely in Nottinghamshire to promote mutual solutions to food poverty and healthy eating. In a sixmonth pilot available until July 2001, grants will be offered, to be spent by the end of December 2001.

Specific targets of this new fund are:

- The increased consumption of fruit and vegetables supporting national targets;
- Promotion of the economic well-being and health of local communities sustainable in the long term;
- Encouragement of people working together co-operatively for mutual benefit;
- Development of a web-based information source to allow cost-effective renewal, extension and spread of good practice on the widest scale.

Cooperative Wholesale Society, PO Box 53, New Century House, Manchester, M 60 4ES.

## Charlie Powell

## Sustain: The alliance for better food and farming

While children's diets are contributing towards the development of numerous diseases and health disorders, manufacturers and advertisers spend hundreds of millions of pounds promoting fatty, sugary and salty foods directly to children.

Those wishing to safeguard children's health advocate regulatory controls on the promotion of food to children. But should this take the form of a voluntary code of practice, as proposed by the Food Standards Agency, or would statutory provisions be more effective?

## When might voluntary codes of practice be effective?

The recently launched Joint Health Claims Initiative is a tripartite collaboration between consumers, food producers and enforcement authorities who have worked together to develop a voluntary code of practice on health claims for foods.

There is common ground between the parties. Manufacturers that invest heavily in product development of functional foods want to see that investment protected by exclusion of companies that market products with poorly researched or unfounded claims. Consumers also want to be sure that health claims are substantiated, reliable and informative.

In the case of the Joint Health Claims Initiative, consensus, albeit for different reasons, is possible. However the fact that these codes of practices are voluntary means that there are a number of reasons why they might not be effective.

## Are voluntary codes of practice pro-active?

In 1998, SmithKline Beecham launched Ribena Toothkind and made an explicit and absolute claim that the product did not encourage tooth decay. However, acting on independently commissioned scientific tests, the Advertising Standards Authority upheld a complaint that this claim was misleading.

The Advertising Standards Authority's adjudication lasted two years during which SmithKline Beecham had launched three national, multimedia campaigns, all based on a claim that was subsequently shown to be misleading. By the time the judgement was issued, millions of customers had already seen the advertising carrying the claim and purchased the product.

This method of regulation has been criticised because it is not pro-active, and it tackles misleading or potentially misleading advertising after it has already gone into circulation.

## What happens when a manufacturer or advertiser ignores a code of practice?

The British code of advertising and sales promotion does not apply to claims made on packaging, as the case of Ribena Toothkind clearly illustrates. Following the Advertising Standards Authority ruling, the claim still appears on the packaging: 'Ribena Toothkind does not encourage tooth decay' – the very claim criticised by independent scientific and judicial assessment as misleading.

In June 1995 the National Food Alliance examined adverts for slimming products and services that appeared in women's magazines. 88% of the adverts were found to be in breach of the British code of advertising and sales promotion. Complaints about such advertising continue to be made frequently to the Advertising Standards Authority.

These examples demonstrate that the voluntary codes of practice on advertising as a method of regulation are 'toothless'.

## What do we mean by industry?

The food industry is highly differentiated – from multinational corporations to thousands of small to medium enterprises. Amongst these there are some responsible companies who adhere to voluntary codes of practice. Some bend or break the non-statutory rules, and others (particularly smaller companies) may not even be aware that a voluntary initiative exists.

Friends of the Earth has produced a report examining voluntary approaches to sustainable development. The report concludes that the diverse range of interests within industry results in high levels of non-compliance. [Friends of the Earth (1995) *A superficial attraction: The voluntary approach and sustainable development.* London: FOE.]

## How effectively are voluntary codes of practice enforced?

Voluntary codes of practice have been shown to be of questionable effectiveness in the Ribena Toothkind case. The Advertising Standards Authority can only prohibit further use of the same claim on print advertising. Not only does it have no powers to impose penalties for past breaches, it cannot prevent misleading claims being used on product labels.

Penalties associated with statutory controls are relatively small, and their deterrent value is questionable. In 2000, Nestlé was found guilty of breaching food-labelling legislation by making 'medicinal claims' for implying on product packaging that eating Shredded Wheat could help consumers reduce the risk of developing heart disease. Nestlé was fined £7,500 – a derisory sum in comparison to Nestlé's net trading profit for 1999 of £1.9 billion.

Controls need to be matched by effective enforcement and realistic sanctions for infringement. However, since voluntary codes of practice are self-regulated, penalties for non-compliance may, by the very nature of how they are set, be insubstantial.

### How important is a common understanding of the spirit of a voluntary code?

The Independent Television Commission's Code of Advertising Standards and Practice states that, 'advertisements must not encourage or condone excessive consumption of any food' and that 'advertisements must not disparage good dietary practice'.

However, the Independent Television Commission only applies its code to individual adverts, which by themselves may not contravene these specific provisions. This interpretation of the code does not protect children from the overall effect of TV food advertising, which has been shown to be dominated by fatty, sugary and salty products.

Staying within the spirit of the codes may also be an exercise in creativity for food companies. Mars plans to extend its Cocoapro logo across its chocolate confectionery range, in association with a claim that constituents in chocolate can help maintain cardiovascular health. The logo promotes the website cocoapro.com, which presents chocolate as a

functional food, featuring pictures of chocolate amidst arrays of fresh fruit. Detrimental effects on health of the fat and sugar content of chocolate are marginalised.

When manufacturers use their creativity to push at the boundaries of the voluntary codes, what penalties exist for those that overstep the mark? And how can this be judged?

## Is there any hope of reaching a consensus on a voluntary code of practice on the promotion of foods to children?

Walkers Crisps has recently been the subject of a high-profile promotion campaign called Books for Schools. Sales of Walkers Crisps (33% fat) have increased significantly as a result. Promotional packets carry the statement: 'The number of books a school can receive is only limited by the number of tokens they collect. So help them by collecting tokens today!'

For this promotion, Walkers Crisps was awarded the prestigious Business in the Community Award for Excellence 2000/2001, providing great kudos for the company's marketing strategy. It is difficult to believe that, in light of this commendation and increasing sales, Walkers Crisps would agree to a voluntary code of practice restricting their promotional activities.

The case of Walkers Crisps illustrates the problem that in drawing up voluntary codes of practice on the marketing of foods to children, it is likely to be very difficult to find a meaningful consensus between consumers, children's organisations, health professionals and the food industry.

It is likely that statutory controls are the only consistent and reliable way of enforcing advertising and labelling restrictions for children's food products.

Sustain: The alliance for better food and farming, Food Labelling & Marketing project, 94 White Lion Street, London N1 9PF.

### Patti Rundall Baby Milk Action

Patti Rundall reflected on issues that had been raised during the meeting and on the marketing of food for babies and children. She looked at whether voluntary guidelines can offer a way forward for regulating the children's food sector.

The Co-operative Wholesale Society and Baby Organix have made presentations suggesting that upholding ethical principles in food production and marketing can offer positive outcomes for both children's health and commercial gain.

But when it comes to companies such as the manufacturers of formula milk, asking them to comply with voluntary guidelines would be asking them to commit commercial suicide. Proper compliance with guidelines such as the World Health Organisation's code on the marketing of breastmilk substitutes would have an enormous impact on the market for breastmilk substitutes worldwide, a market that is worth over 8 billion dollars. In this circumstance, it is naïve to think that voluntary guidelines could ever be an effective way of policing the most damaging activities of food companies.

In addition, the corporate culture of many food companies militates against progress towards a more ethical approach to food production and marketing. The President (and former CEO) of Nestlé Helmut Maucher, is quoted as saying: 'Ethical decisions that injure a firm's ability to compete are actually immoral'.

We should be aware that this attitude drives many companies, and that they all have an ethical duty to shareholders to maximise profits. We should be extremely wary, therefore, of 'joint' ventures, such as the Joint Health Claims Initiative which seeks to set voluntary guidelines for health claims made on food. Such ventures can distract NGOs – who are under great pressure of time and resources – from pursuing lasting and more effective solutions such as legislation.

Of particular concern are arrangements where NGOs endorse particular products, or health claims on categories of products. Many NGOs are sliding into relationships and funding arrangements and are in danger of losing their independent and critical status. We also risk losing the trust of the consumer. People can't be expected to make well-informed choices and decisions if the people giving them the advice have vested interests in the outcome.

There are so many new and creative ways that food companies use to promote their products, often with a pseudo-healthy image and using skilful PR. Baby Milk Action is calling for more truly independent money to be devoted to research in the public interest – and for greater transparency in scientific bodies. Regulations should not allow corporate interests to undermine public health – wealth generation is not everything. Even with good legislation NGOs will need to maintain their independence and continue to highlight bad practice.

Baby Milk Action has recently published a teacher's pack *Seeing through the spin*, to help counter the corporate take-over of school classrooms and colleges. It helps students understand how marketing, spin and public relations works – be it from NGOs or from companies.

Baby Milk Action, 23 St Andrews Street, Cambridge CB2 3AX.

## Tom Murray Head of the Nutrition Division, Food Standards Agency

Tom Murray, newly appointed head of the Nutrition Division of the Food Standards Agency, spoke about opportunities for the FSA to influence policy on improving children's nutrition

Tom Murray emphasised the Food Standards Agency's commitments to openness and transparency, to developing strategies in consultation with stakeholders, and to publishing full details on matters such as research. He also emphasised that the FSA is keen to be proactive in seeking out issues that need to be researched and tackled.

The debate on nutrition issues needs to be opened up. A way needs to be found for stakeholders (including industry) to make their contribution and get recognition for it.

A rich tapestry of initiatives to improve children's nutrition is already underway. It will be part of the FSA's role to complement these activities, to support useful initiatives and to disseminate advice on good practice. Tom Murray pointed out the need for coordination, and for linking up initiatives with the statutory bodies.

Nutrition is one of the priority areas in which the Food Standards Agency will be developing work over the coming months and years. In summary, what the FSA wants to achieve is:

- Long-term improvements in the diet and nutrition of the UK population
- Reduction in inequalities by enabling and encouraging the disadvantaged and vulnerable to improve their diets

How this will be brought about:

- By the establishment of a new Nutrition Stakeholder Forum in 2001;
- Through work with the Health Departments and other agencies (including the all-Ireland Food Safety Promotion Board on specific issues)
- Through work with the UK food industry to improve nutritional quality in processed foods (for example by reducing their salt content);
- By helping people to understand how to achieve a healthy diet in practice
- By identifying and promulgating the most effective ways of encouraging adoption of a healthy diet, on the basis of advice from expert advisory committees, our own research and other relevant sources of information such as health and education professionals.

The FSA's role begins with getting sound evidence on which to base our advice and action. The FSA does this by commissioning research and dietary surveys, and by seeking advice from expert advisory committees. The FSA has a major role to play in enabling, motivating and informing people about diet, and in identifying what steps people can take to change their eating habits for the better. Our aim is to find out what information the general public and specific groups need about healthy eating, and the best means of getting the facts to them.

Some factors that will play an important part in this:

- Accurate and informative labelling:
- Education, by means of:
  - getting information through to children in a way that is meaningful to them
  - ensuring that children have practical food and cooking skills.

There is a great deal of work already being done by the Agency and by other organisations in enabling and promoting a healthy diet. So a key role for the Agency will be to achieve better communication and joint working between the different players, including Local Authorities. The FSA is committed to evaluating and monitoring the effectiveness of action taken to promote and to improve access to a healthy diet.

The FSA will also ensure an effective approach to consultation with stakeholders, including the Nutrition Stakeholder Forum, and involve them in the development of nutrition policy. The FSA is also working closely with the Devolved Administrations in Scotland and Wales, for example in the Scottish Diet and Nutrition Forum.

Tom Murray's department is the Nutrition Division of the FSA, which:

- Provides authoritative factual information about the nutrient content of individual foods and of the diet as a whole.
- Secures expert scientific advice on the relationship between diet, nutritional status and health.
- Provides information on a healthy balanced diet, to promote and protect public health.
- Monitors food consumption, nutrient intake and nutritional status in Britain through the National Diet and Nutrition Survey (NDNS) programme.
- Is responsible for nutritional aspects of MAFF's National Food Survey (NFS).

The Food Standards Agency, Aviation House, 125 Kingsway, London WC2B 6NH.

# Imogen Sharp Department of Health

Current Department of Health nutrition initiatives include:

- Review of the welfare foods programme;
- Increase support for breastfeeding with a particular focus on low-income groups;
- National School Fruit Scheme which has already provided free fruit on a regular basis to 80,000 children;
- Five-a-day programme to increase consumption through local initiatives;
- Work with industry to improve fruit and vegetable promotion and improve the overall balance of diet including reductions in salt, fat and sugar;
- Local action to tackle obesity and physical inactivity.

#### Overview of existing Government policies on children and food in schools

#### (1) Breakfast clubs

During 1999 - 2001 the Department of Health funded a number of pilot breakfast clubs. Each of the 8 NHS Regions received £100,000 per year to provide start up and running costs for breakfast clubs in their regions. The number of clubs varied per region but throughout England over 230 clubs received funding from the project. Most of the schools involved were in deprived areas.

Evaluation of the pilots is being carried out by the University of East Anglia. The interim report (May 2000) reported on some initial benefits of breakfast provision in schools, which included:

- Improved concentration in morning classes;
- Speedier integration of pupils into the school day;
- Benefits for individual children who may have behavioural problems or need to care and feed themselves or other siblings;
- Improved social skills;
- Improved interaction across year groups;
- Improved social contact between staff and pupils leading to better relationship.

#### (2) School Lunches

The Government considers it important that children should be able to have a healthy school meal. The DfES introduced minimum nutritional standards for school lunches – the first for over twenty years – with effect from 1 April 2001. A new duty to provide paid meals will ensure that LEAs and/or schools will continue, or in some cases restart, the provision of school lunches. LEAs or schools with delegated budgets for the provision of school meals are responsible for ensuring that the standards are met. LEAs are free to specify their own standards so long as they exceed the national standards.

The nutritional standards are expressed in terms of the five food groups (as in the 'Balance of Good Health'). They specify the types and frequency of food that should be available at the school lunch. The majority of respondents to the consultation favoured food based nutritional standards rather than nutrient based standards. Nutrient-based standards would not be

applicable in secondary schools without a drastic alteration in the provision whereas food based standards can be implemented in secondary schools. The DfES have provided guidance for caterers on implementing the standards.

#### (3) School fruit

The NHS Plan, published in July 2000, contained the commitment that by 2004: 'every child in nursery and aged between four to six in infant schools will be entitled to a free piece of fruit each school day, as part of a national campaign to improve the diet of children.' Pilots for the National School Fruit Scheme began in November 2000 and were expanded in Spring 2001 so that over 80,000 children aged 4- 6 years old receive a free piece of fruit each school day. Issues around storage and sustainability need to be considered.

Initial findings show that the benefits of National School Fruit Scheme include:

- Enriched social/communal atmosphere in class;
- Calming effect on children resulting in improved behaviour;
- Teachers have used the scheme to support teaching;
- The scheme is popular with children and teachers;
- Teacher time demand has been less than expected.

#### (4) Growing food

Small scale growing projects can be done even in schools with limited space. For example, following the progress of a window box of wheat offers opportunities to learn about plant life cycles, production methods, nutritional properties of cereal, how cereal is used in different foods and in cooking. Such a project could also be extended into literacy and numeracy, through creative writing, weighing and measuring flour for example.

Another key benefit of growing food is its contribution to Sustainable Development Education, which runs as a theme across the curriculum. Many key aspects including environmental awareness, community involvement, issues about climate change and the rural economy can all be channelled through growing food in schools, particularly with older pupils.

An important aspect of growing food is to demonstrate, on a small scale, what fruit and vegetables look like as they grow, and then to move into wider issues about how food gets from the producer to the home. Helping children to become more educated consumers gives them the knowledge and understanding to make healthy eating choices. This ties in with key health messages about diet, nutrition and active lifestyles which run throughout the curriculum at all key stages.

#### (5) Tuck shops and vending machines

Tuck shops and vending machines fall into the National Healthy Schools programme (see note in box below) but ultimately they are entirely under the control of the school. It is hoped that schools participating in the National Healthy School Standard will have a consistent policy on tuck shop and vending machines.

Some work on promoting healthy vending has occurred in local regions but to date there has not been an extensive programme of implementing healthy vending options.

Note: The National Healthy School Standard has specific themes that a school can choose to implement. If the school chooses to work on the healthy eating theme then the quality standards it must reach are as follows:

- The school presents consistent, informed messages about healthy eating, for example, food on offer in vending machines, tuck shops and school meals should complement the taught curriculum;
- The school provides, promotes and monitors healthy food at lunch and break times and in any breakfast clubs where they are provided;
- The school includes education on healthy eating and basic food safety practices in the taught curriculum.

#### (6) After school clubs and study support

Over 95% of schools provide some form of study support and most schools have increased provision in recent years. Much of this change can be attributed to strategic direction and support from central Government, including action research pilots to inform the development and production of good practice materials, establishing a critical friend network to disseminate best practice and dedicated funding of £205m from the New Opportunities Fund and £80m from Standards Fund. Evaluation shows that pupils who participate in study support do better in academic attainment, attitudes to school and attendance at school.

#### (7) Food education

The National Curriculum Programmes of Study provide a statutory framework for education from the ages of 5-16 (the revised curriculum was introduced in September 2000).

#### Food education, ITT and CPD Key Stage 1-2

Mandatory programmes of study in Science ensure that all primary pupils learn about nutrition. D&T includes opportunities for nutrition and hygiene to be taught through practical food preparation and, PSHE (non-mandatory at present) provides further opportunities, although teaching staff will not generally have specialist training in food education. During their initial training primary trainees all have access to an interactive CD-ROM, through which they can achieve a food safety certificate. However, many primary teachers remain inadequately trained to undertake practical food work and the Food in Schools initiative is piloting a fully evaluated CPD programme to redress this situation.

#### Food education, ITT and CPD Key Stage 3

Mandatory programmes of study in Science ensure that all 11-14 year old pupils can learn, in more detail, about nutrition through specialist teaching. Those programmes for food technology, within D&T, are non- mandatory. 90% of pupils experience food education, including nutrition and food hy giene taught through food preparation. PSHE provides further opportunities, although teaching staff will not generally have specialist training in food education. CPD in food technology, including some excellent website provision, has ensured that all teachers have access to high quality and relevant information and pedagogy. *Many schools have set up School Nutrition Action Groups where science and food technology teachers work with others to ensure a consistent healthy message is given by all. However, there are issues about the time-allocation for practical food preparation at Key Stage 3 because of the perceived low status (non-mandatory) of the subject and from other pressures upon the curriculum.* 

#### Food education, Key Stage 4

Mandatory programmes of study in Science ensure that all pupils taking a double award learn about digestive aspects of nutrition; those taking single science Biology learn about nutrition in more detail. Approximately 107,000 pupils achieved GCSE Food Technology in 2000, where they learnt about nutrition and food hy giene through designing and making food products.

#### Food in Schools programme

The Food in Schools programme was launched in April 2001 by the DH and DfES, to bring together under one umbrella the school food-related initiatives outlined above. With an initial £2.2m funding, the programme take a whole school approach by:

- Promoting consistent messages about food and nutrition within the classroom and through the provision of food;
- Providing children with opportunities to learn about food and nutrition, within school time and after school;
- Enable children to choose a balanced, healthy diet through meals and snacks;
- Provide opportunities for children to develop skills in food growing, handling, preparation and cooking, and to improve teachers' skills in food education.

Department of Health, Room 542, Wellington House, 133-155 Waterloo Road, London SE1 8UG.

#### PART 2

## Children's Nutrition: targets and interventions

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### Note on nutrition policies and the role of central government

As can be seen in the final presentations to the round-table meeting (Part 1 of this document) two government offices – the Food Standards Agency and the Department of Health – are jointly responsible for government nutrition policy. Other departments that may have an interest in nutritional matters (such as the Department for Education and Skills for school meal services) would seek to consult with one or both of these two offices when developing relevant initiatives. According to the government's own papers, responsibility for nutrition is divided between the offices according to the following criteria.

The Food Standards Agency has responsibility for:

- The collection, maintenance and dissemination of up-to-date information on nutrient composition of food;
- Provision of nutritional advice and information particularly in relation to food consumption, food composition, and nutrient intake, and provide the definition of a balanced diet for use in health education material produced by other bodies;
- Proposing legislation including in relation to labelling and claims, dietary supplements, fortified and functional foods;
- Representing the UK in international negotiations on issues relating to nutritional content of food (except when this relates to breastfeeding mothers, children, inequalities, and vulnerable groups), and on foods for particular nutritional purposes;
- Provision of practical guidance in relation to nutritional aspects of the food chain, including production and catering;
- Formulation of policy and advice to Ministers on the above;
- Commissioning and management of research on food and diet.

A key function for the Agency is to help consumers, particularly the disadvantaged, to improve their health through better diets. This contributes towards the Government's aims expressed in the White Paper: *Saving Lives, Our Healthier Nation* and in Scotland the White Paper *Towards a Healthier Scotland* which are to improve the health of the population as a whole by increasing the length of people's lives and the number of years spent free from illness; and to improve the health of the worst off in society and to narrow the health gap. The Agency can contribute towards the specific targets in relation to the reduction of death rates from heart disease, stroke and cancer.

In relation to nutrition, Health Departments retain responsibility for:

- Wider public health policy including nutritional aspects of clinical conditions (e.g. cardiovascular disease, cancer, obesity);
- Consideration of vulnerable groups;
- Health education on wider behavioural issues which go beyond nutrition (e.g. smoking, drinking, physical activity);
- Links with NHS and health professionals, breast feeding promotion, clinical nutrition and dietetics including hospital catering and nutritional therapy, and health surveillance;
- Representing the UK in international negotiations on dietary issues relating to health and on issues relating to vulnerable groups;
- Formulating policy and providing advice to Ministers in the above areas;
- Commissioning research appropriate to its responsibilities.

The overall aim of DH is to allow people to attain the highest possible standard of health and well being and to provide high quality health and social care for those who need it. The Department represents UK health policy interests in appropriate international organisations, including the European Union and the World Health Organisation, and supports UK health care and pharmaceutical industries.

An advisory group, the Scientific Advisory Committee on Nutrition (SACN) has been established to provide expert advice to both the Food Standards Agency and the Department of Health. The SACN replaces the now-disbanded Committee on Medical Aspects of Food Policy (COMA) which answered to the Department of Health. Membership of the SACN includes a consumer representative, and the committee is expected to follow the lead of other advisory committees in practising openness and transparency in its proceedings.

### Issues, targets and interventions

This section forms the core of the Children's Nutrition Action Plan. The current problems with children's nutrition are examined (some of which have been referred to in the presentations included in Part 1 of this document) alongside the types of solutions that are needed to rectify these problems. Solutions involve the setting of objectives or targets, and initiating interventions to attempt to meet those objectives.

This document is not intended to be exhaustive. Many agencies have policies and objectives, and are undertaking initiatives that will have an influence on what children eat. This section of the document looks at three main areas of concern:

#### 1. Nutrition for babies and pre-school children

This looks at nutrition before and during pregnancy, breast and bottle-feeding and nutrition during early childhood.

#### 2. Nutrition in school-age children

This looks at current food patterns among school-age children and their health effects, the development of whole-school nutrition policies, and other policies that focus on school-age children.

#### 3. Food manufacturing, retailing and marketing

This looks at the promotion of food products to children through a range of marketing methods, and at the measures being developed by food manufacturers and retailers to encourage healthier diets. We also consider other policy measures that may be needed to improve the marketing of food to children.

#### 1. Nutrition for babies and pre-school children

Note: References in the first column are for the data source; references in the second column show where a suggested target or intervention has been drawn from. See pp 66-68 for a full list of references.

#### Issues to be addressed

#### Nutrition before and during pregnancy

- Low birthweight is associated with serious chronic diseases and conditions in later childhood and in adulthood, including:
  - high blood pressure;1
  - impaired glucose tolerance (with implications for heart disease and diabetes);<sup>1</sup>
  - higher rates of disability (e.g. cerebral palsy, visual impairment, deafness);<sup>2</sup>
  - poorer neuro-motor competence and cognitive ability; 3,4,5
  - poorer language development and social skills:<sup>5</sup>
  - behavioural and attention-deficit disorders.<sup>5</sup>
- Good nutrition before and during pregnancy can reduce the risk of low birthweight.<sup>19</sup>
- Low birthweight is more prevalent in families on a low income. 19
- A study by the Health Education Authority in 1989 showed that the main barrier to improvements in diet for people on a low income was lack of money<sup>6</sup> – a view backed up in 1992 by the all-party House of Commons Health Committee.<sup>7</sup>
- Evaluation of the Women, Infants and Children (WIC) Supplemental Food Programme for pregnant women in the USA has concluded that 'prenatal WIC participation is associated with a

### Targets and interventions

#### **Nutrition before and during pregnancy**

- A comprehensive survey into the diets of pregnant women. <sup>17</sup>
- Improving access to good quality, affordable fresh food for women on low incomes, <sup>17</sup> and other measures to assist low-income families, including:
  - ♦ Benefit levels to be reviewed to take into account different nutritional needs before and during pregnancy (a 1988 survey by the Maternity Alliance showed that an unrealistic proportion of benefit income would need to be spent on food to achieve a nutritionally satisfactory diet<sup>18</sup>);
  - Research into the adequacy of benefit rates for providing a balanced diet for pregnant women, in varying geographic and cultural circumstances.
- Adopting 'incidence of adverse birth outcomes' as a government indicator of deprivation.<sup>17</sup>
- An economic evaluation of the cost to the nation of incidences of low birthweight, and the economic benefits of intervention. The US General Accounting Office estimated that for every \$1 spent in the USA through the Women, Infants and Children (WIC) Supplemental Food Programme for pregnant women, a sum of \$3.50 was returned to federal, state and local governments and private health insurance payers during the first 18 years of life. <sup>20</sup>

#### Breast and bottle feeding

• More comprehensive information on the reasons why women choose to bottle feed rather than breast feed.

reduction in the incidence of low birthweight, very low birthweight, and pre-term delivery, especially among women at high risk because of sociodemographic characteristics or medical conditions.<sup>8</sup>

#### Breast and bottle feeding

- Breastfeeding is a key determinant of the nutrition, health, development and emotional well-being of infants, and of long-term health gains extending into adulthood.<sup>9</sup>
- Breastfeeding is associated with lower rates of infection, and of sudden infant death.<sup>9</sup>
- There are marked socio-economic, ethnic and regional differences in starting to breastfeed, and keeping it up. These differences can contribute to both initial and persistent inequalities in health 9
- Surveys have shown that bottle feeding may be inadvertently promoted to new mothers, persuading many to stop breastfeeding too early.

#### Infant nutrition

- The typical diet of pre-school children does not meet current nutritional recommendations. The National Diet and Nutrition Survey (1995) showed:
  - ◆ Approximately 75% of British children under 4 years of age have an inadequate iron intake – one in 12 children were classified as anaemic (in younger children, one in eight);<sup>11</sup>
  - ◆ The fibre intake of pre-school children was only about 6g/day, compared with a recommended 10g/day;<sup>11</sup>
  - ◆ Over 85% of pre-school children consume more sugar (non-milk

- Better enforcement of the ban on provision of free samples of artificial milk to mothers of young babies.<sup>21</sup>
- Maternity wards to review policy of giving free samples of formula milk to women leaving the ward.<sup>21</sup>
- Information available in all maternity wards, also in minority languages, on breastfeeding appropriate bottle feeding, age of weaning and suitable weaning foods. <sup>21</sup>
- Evaluation of how well hospitals are enforcing their own breastfeeding commitments, and how well they are complying with World Health Organisation (WHO) guidelines.<sup>21</sup>
- An audit of the number of new mothers breastfeeding on discharge from hospital.<sup>9</sup>
- Encourage peer support programmes for new parents (some have already received DH funding<sup>9</sup>).
- Encourage small-group informal discussions to encourage breastfeeding. (Barnardo's offers evidence on proactive interventions being better than education campaigns<sup>9</sup>).
- The appointment of lactation advisers in maternity wards.<sup>21</sup>
- Evaluation of peer support projects and projects designed to influence other family members, including fathers.<sup>9</sup>
- A review of Sure Start provisions relating to nutritional support and advice, and implementation of new recommendations.
- A comparative study of UK provisions with WIC (USA) provisions of support to low-income parents, to evaluate best practice and to draw up policy proposals for the UK.

#### Infant nutrition

- Baseline assessments of health, including dental health, as well as the state of educational development in 5-year-olds entering primary schools.<sup>22</sup>
- Nursery Nurse Education Board (NNEB)

- extrinsic sugars) than the recommended maximum. Typically, children consume approximately double the recommended maximum;<sup>11</sup>
- ♦ 30% of pre-school children show evidence of tooth decay related to frequent non-milk extrinsic sugar consumption and infrequent teeth brushing (although frequent brushing of teeth did not appear to outweigh the damaging effects of frequent sugar consumption). 11,12,13,22
- ◆ The National Diet and Nutrition Survey (1995) showed clear evidence of lower plasma levels of folic acid and vitamin C in children from low-income families<sup>11</sup>;
- A breakdown of the energy intake of British pre-school children shows: Sweets account for 11% of energy; Biscuits, buns, cakes and pastries: 9%; Soft drinks: 6%; Chocolate: 5%; Potato crisps, 4%; Savoury snacks: 4%. In contrast, total vegetables, fruits and nuts contributed 5%. 11
- Half of UK children between the ages of 1 year and 18 months are given sugar-sweetened or artificially sweetened squash to drink. In 1997, a survey of pre-school children showed that 86% were regularly drinking sweetened soft drinks. The survey also showed that high levels of sugar consumption correlated with poor intakes of nutrients and dietary fibre.
- A survey of 21 top-selling baby biscuits found many with excessive sugar levels (up to 50%). Biscuit consumption showed the strongest links to poor dental health in infants. 11

- revision of training course to ensure that qualified nursery nurses are trained in issues relating to food and nurturing physical activity and movement in pre-school children.<sup>22</sup>
- Good quality research to aid the development of nutrition intervention programmes for preschool children, based on recommended guidelines from the Health Education Authority:
  - ◆ To allow for comparisons between data from different studies;<sup>23</sup>
  - ◆ To build in evaluation to assist future intervention work;<sup>23</sup>
  - ◆ To draw on best practice recommendations from HEA assessments of previous studies and interventions, such as appropriate assessment tools for young children, and the use of new technologies to support nutrition education;<sup>23</sup>
  - ◆ To ensure that studies and interventions are in line with nationally accepted nutritional principles.<sup>23</sup>
- Studies of the long-term changes in behaviour of nutrition intervention with pre-school children <sup>23</sup>
- A survey of nutritional knowledge/practice in nursery school staff.
- A requirement on nursery schools to conform to a recognised nutritional programme, such as the Caroline Walker Trust guidelines or SMAP.

#### 2. Nutrition in school-age children

Note: References in the first column are for the data source; references in the second column show where a suggested target or intervention has been drawn from. See pp 66-68 for a full list of references.

#### Issues to be addressed

#### What school-age children are eating

- The National Diet and Nutrition Survey (2000) of British schoolage children (4-18 years old)<sup>24</sup> showed that on average:
  - Over 90% of children are eating diets containing more saturated fat than the maximum recommended amount;
  - Over 85% of children are eating diets containing more non-milk extrinsic sugars than the maximum recommended amount;
  - ◆ Over 55% of children consume more than the maximum recommended amount of salt;
  - On average, children are eating less than half the recommended five portions of fruit and vegetables per day.
     20% of children ate no fruit at all during the week of the survey;
  - ♦ 96% of four- to six-year-olds do not eat the recommended five or more portions of fruit and vegetables a day;<sup>33</sup>
  - For every ounce of green leafy vegetables, boys eat a quarter of a pound of sweet biscuits and girls a quarter of a pound of confectionery;
  - One in every five older girls eat diets grossly deficient in

### Targets and interventions

The National Healthy Schools standards recognise that a whole-school approach to healthy eating is effective in bringing about lasting change in school eating habits and creating a healthier food culture. Targets and interventions for ensuring that more schools take up this approach and that existing projects sustain their good effect could include the following points.

#### Whole-school nutrition policies

- A target for number of schools with school food committees. In 1997, only 12% of schools had a food committee.<sup>22</sup> Quality assessment indicators could be developed to encourage the development, maintenance and efficacy of school food committees, including:
  - ◆ Involvement of a range of stakeholders (school children, caterers, parents, staff, health professionals) on the committee; <sup>43,44</sup>
  - ◆ Surveys of pupils' perception of healthy eating (1996: 73% of pupils in schools with food committees said that healthy eating was either very or quite frequently discussed compared to 56% in all schools<sup>45</sup>);
  - ◆ Surveys of pupils' perception of how healthy eating is supported in the school. (1996: Overall only 43% of pupils thought healthy eating was encouraged in their school. This was 78% in schools with food committees<sup>45</sup>);
  - ◆ The number of pupils choosing fresh fruit as a dessert (which has been shown to be higher in schools with food committees – 16% compared to 6%<sup>45</sup>);
  - ◆ Parental satisfaction in schools (1996: Shown to be higher in schools with food committees – 70% compared to 62%<sup>45</sup>).
- With or without food committees, indices of whole-school food policy or indices of a 'healthy

vitamins A and B2;

- Half of all older girls eat diets grossly deficient in iron and magnesium;
- ◆ 9% of older girls suffer irondeficiency anaemia. 2425
- Average consumption of non-milk extrinsic sugars exceeds recommended levels in all ages of children.<sup>11,24,26</sup>
- One in five 8-10 year olds buy's sweets, crisps and savoury snacks on the way to school (spending a total of £22.4 million). Packed lunches were usually nutritionally inappropriate, crisps and chocolate were common ingredients. 26
- Consumption of fruit and vegetables in better-off families is a third higher than in poorer families.<sup>27</sup> This social class difference has also been reported in children.<sup>24,11,33</sup>
- Food poverty, affordability and access to healthy, varied food have been identified as possible barriers to people on a low income eating healthy diets. Work by the Social Exclusion Unit shows that on many low-income estates, there is no access to shops selling affordable fruit and vegetables (a situation referred to as 'food deserts' 300).

## Health outcomes in childhood and adulthood

- Poor nutrition, as a consequence of an inadequate diet, is a fundamental factor in the development of many diseases prevalent in the UK, including coronary heart disease<sup>31</sup> and up to an estimated third of all cancers.<sup>32</sup>
- People on a low income are more

food culture' could also be used to encourage the development, maintenance and promotion of healthy eating, for instance measures of:

- Healthy foods available;
- Presence and content of vending machines, and a school policy on vending machines;
- ◆ Commitment to no confectionery implementation of a policy on the quality of food and drink brought into school, and guidance on healthy lunch boxes<sup>22</sup> which were found in 1992 to be generally high in fat and sugar and low in fibre;<sup>46</sup>
- ♦ Policy on food advertising in school;<sup>22</sup>
- Creative approaches to misuse of pocket money;<sup>22</sup>
- ♦ Cooking methods used by school caterers;
- ♦ Hygiene requirements;
- Survey of children's wants and needs;
- ♦ Quality of eating environment;
- ♦ Time kept waiting;
- ◆ Adherence to a nutritional scheme such as Caroline Walker Trust or SMAP, etc;
- ◆ Types and proportions of foods corresponding to the Balance of Good Health (e.g. Kent Heart in the Mouth project in schools<sup>42</sup>);
- Pricing system favouring healthy foods making fatty and sugary foods more expensive;<sup>42</sup>
- ◆ Good presentation of healthy foods;<sup>22</sup>
- ♦ High take-up of healthy foods;
- Nutrition education integrated into other core subjects;
- Measure of nutritional knowledge in catering staff; (e.g. Kent Heart in the Mouth project in schools<sup>42</sup>);
- ♦ Checklist or guidelines of good practice for schools wishing to address nutrition, or national award scheme, or featuring in national school league tables;<sup>22</sup>
- ◆ Building these into the National Healthy Schools Standards. At present, the HSS

- likely to suffer from diet-related chronic diseases for instance, they are three times more likely to die early from coronary heart disease than those from high-income groups.<sup>33</sup>
- Consumption of sugar-sweetened beverages is an independent risk factor for obesity in children. 34,35
- Excess weight gain in later childhood predicts obesity in adulthood, with closely-linked disorders of diabetes, arthritis, gallbladder disease and premature mortality.<sup>22</sup>
- Boys in secondary school are heavier than they were, have higher blood pressures and cholesterol levels than children in countries with much lower rates of heart disease.<sup>22,36</sup>
- Adolescent overweight girls are likely to develop menstrual problems in adulthood.<sup>22</sup>
- There is an association between economic deprivation and childhood obesity.<sup>37</sup>
- Eating disorders are increasingly common.<sup>22</sup>
- In terms of school facilities and commitment to better nutrition, a 1997 report on *Healthy English Schoolchildren*<sup>22</sup> identified the following problems affecting children's health:
  - ◆ Loss of school playing fields to generate capital;<sup>22</sup>
  - ◆ Conversion of school kitchen facilities to other uses and the introduction of commerciallydriven canteen services;<sup>22</sup>
  - Removal of nutritional standard for school meals;<sup>22</sup>
  - The loss of major teacher involvement in organised

encourages the school to:

- Present consistent informed messages about healthy eating, for example, food on offer in vending machines, tuck shops and school meals should complement the taught curriculum.<sup>47</sup>
- Provide, promote and monitor healthier food at lunch and break times and in any breakfast clubs where they are provided;<sup>47</sup>
- Include education or healthier eating and basic food safety practices in the taught curriculum.
- Target for breakfast clubs (funding made available, training, number started), drawing from the Nutrition Evaluation of School Breakfast Clubs in East Anglia (2000).
- Target for cooking skills clubs.<sup>22</sup>
- Policy measures to tackle confectionery retailers/ newsagents/food vans operating near to schools.<sup>22</sup>
- Target for free school meal uptake, which is currently poor. Methods of making free school meal uptake more acceptable – tackling the root causes.
- Target for the number of schools or LEAs complying with or exceeding the national standards for nutrition in school lunches.

## Other policy measures for improving health in school-age children

- Possibility of creating a DfES/DH Health Promoting Schools Unit, which could also liaise in a pan-European network on best practice. 22
- Baseline assessments of health, including dental health, as well as the state of educational development in 5-year-olds entering primary schools.<sup>22</sup>
- Legislation on nutritional standards for school meals to cover breakfasts, snacks, vending machines, soft drinks, etc at the very least in primary schools.<sup>22</sup> In the Department for Education and Skills' programme *Ingredients for Success*, this is not built into the nutrition standards for schools.<sup>49</sup>

- school meals with its opportunities for learning social skills;<sup>22</sup>
- ♦ Soft drink/confectionery machines and tuck shops used to generate school revenue;<sup>22</sup>
- ◆ The loss of cooking skills in the formal curriculum.<sup>22</sup>

#### Children's dental health

- The story of dental problems in children is largely the story of sugar consumption, in particular *frequent* sugar consumption.
- Children eat less sugar added at the table (1980: 23%; 1990: 12%), and purchases of packet sugar are declining, but people still eat more sugar overall as 'hidden sugars' in processed foods. (80% of sugar is used in the manufacture of processed foods.<sup>41</sup>) Compared with national guidelines, sugar consumption remains too high.<sup>41</sup>
- From 1980-90, there has been a large increase in the contribution of soft drinks to total sugar consumption in school-aged children <sup>41</sup>
- Although over the period 1983-93 there was about a 40% decline or delay in onset in dental caries rates, this improvement probably relates to the introduction of fluoride in toothpaste, not to changes in eating patterns.<sup>22</sup>
- 2000: The National Diet and Nutrition Survey fond that 53% of all children between 4 and 18 years old had dental decay in their primary or permanent teeth.<sup>38</sup>
- A large amount of money and effort is spent on advertising sugary foods and drinks to children. For example, in 1997-98, Coca Cola spent £31.4 million on advertising. Children in particular

- Advice to schools on managing delegated budgets effectively for better nutrition.<sup>42</sup>
- Putting nutrition higher up the agenda a conference of head teachers and/or food committee representatives.
- Review of *Ingredients for Success?* Input from schools a year on...
- Strengthening nutritional standards for school meals. Also consider including aspects of promotion, display, pricing, etc., to encourage healthy eating. Sharing of best practice information on marketing healthier food options in schools.
- Pre-school education to be included in the Health Promoting schools project.
- Strengthen the role of the CMO in health promotion on cross-sectoral health issues, particularly relating to children, with a team reporting to the CMO.<sup>22</sup>
- Support the establishment of Health Committees in all schools with opportunities for food, smoking and physical activity sub-committees to ensure implementation and promotion of the work.
- Consider ring-fencing funds for school health services. 22
- Definitions of minimum services that are acceptable under guidelines. 22
- Requirement on Health Authorities to ensure that adequate school health services are provided.<sup>22</sup>
- DfES new national framework (1997) to promote extended opportunities for learning outside the classroom excellent place to develop food education. DfES could build on good practice of extracurricular schemes such as *Get Cooking!* and *Food in Schools*.<sup>22</sup>
- Development of educational materials that incorporate health promotion information/ideas into literacy and numeracy work. 22
- Nutrition helpline for school caterers. 22
- Measures of capacity building in teaching and catering staff.
- Action on encouraging physical activity.<sup>22</sup>
- Education bodies concerned with curriculum

- are targeted by advertisers, with typically 11 food adverts per hour. In contrast the Health Education Authority spent only £0.3 million promoting healthier diets.<sup>41</sup>
- For every nutritionally 'good' food product designed for and marketed at children, there are 10 nutritionally 'bad' products (judgement based on the guidance on high and low levels of fats, sugars and salt issued by MAFF, 1996).
- Sugar not only causes tooth decay directly, but also has a secondary influence on obesity (particularly when consumed in soft drinks<sup>35</sup>), and therefore the incidence of heart disease, diabetes, etc.<sup>24,41</sup> In addition, sugars contain no micronutrients and provide 'empty calories', <sup>40</sup> displacing healthier nutrient-rich foods from the diet.<sup>41</sup>

NON-MILK EXTRINSIC SUGARS: The DRV for non-milk extrinsic (NME) sugars is less than 10% energy intake (i.e. less than 60g per day). NME sugars are sugars not located within the cellular structure of food, excluding that naturally present in milk, so it refers to sugar added by the manufacturer, cook and consumer, as well as sugars in honey, syrups and fruit juices. In terms of foods, 60g of non-milk extrinsic sugars is roughly equivalent to two tubes of Polos or three bowls of Frosties or half a packet of ginger-nut biscuits or two bars of chocolate. 42

- development, the training of teachers and other staff and monitoring of inspection should have (at least) one member of staff dealing specifically with health promotion issues.<sup>22</sup>
- Strengthening 'healthy schools' aspects of OFSTED, including nutritional considerations.<sup>22</sup> Addressing training of OFSTED inspectors in nutrition / health issues.<sup>22</sup>
- Requirement for nutrition and physical activities to feature in school annual reports. 22
- Module on the principles of health promotion in schools, to be requirement in proposed (1997)
   National Professional Qualification for Headship.<sup>22</sup>
- Action to prevent dismantling of catering facilities to allow cooking skills to be taught.<sup>22</sup>
- Changing the operation of the Intervention Board to allow more effective redistribution of surplus fruit and vegetables in quantities appropriate to schools. (Measures and needs discussed at the Sustain Surplus Food Distribution conference, 2000).
- International comparisons of obesity rates needed, based on a standard measure.<sup>22</sup>
- Need to relate data on school children's blood pressure and cholesterol levels obtained from 'the planned' (1997) adolescent survey with international data and with pre-existing information from pathology departments on the state of coronary arteries in adolescents.<sup>22</sup>
- Concerted lobbying from FSA and DH to MAFF to review subsidies for sugar production, subsidised exports (sugar dumping), the Sugar Regime and Sugar Protocol, ensuring that the impact of sugar on human (in particular child) health is included in impact analysis of policies.
- FSA and DH to consider how better to influence MAFF policies on animal feeds to improve nutritional quality of food (e.g. lower levels of saturated fats in meat and meat products), where agricultural practices have a proven impact upon nutritional quality.
- Useful data to be gathered consistently to assist in policy and intervention planning and to use as marker points to evaluate interventions, for instance:

- ◆ Proportion of children overweight or obese;<sup>22</sup>
- ♦ Incidence of dental caries;<sup>22</sup>
- ◆ Proportion of children under five with iron deficiency or anaemia;<sup>22</sup>
- ♦ Blood cholesterol of school-age children;<sup>22</sup>
- ◆ Proportion of young people who would 'like to change something' about their body;<sup>22</sup>
- ◆ Proportion of schools designated as health promoting schools;<sup>22</sup>
- Proportion of schools with a food committee;<sup>22</sup>
- ◆ Proportion of schools with a physical activity committee;<sup>22</sup>
- ◆ Proportion of schools with safe routes to schools projects;<sup>22</sup>
- ◆ Proportion of schools offering hot meals to all pupils who want them;<sup>22</sup>
- ◆ Proportion of schools with adequate catering facilities for cooked lunches;<sup>22</sup>
- ◆ Proportion of children entitled to free school meals taking up their entitlement;<sup>22</sup>
- ◆ Children's spending on confectionery;<sup>22</sup>
- ◆ Proportion of children eating chips more than three times a week:<sup>22</sup>
- ◆ Proportion of children eating five portions of fruit and vegetables per day.<sup>22</sup>

#### 3. Food manufacturing, retailing & marketing

Note: References in the first column are for the data source; references in the second column show where a suggested target or intervention has been drawn from. See pp 66-68 for a full list of references.

#### Issues to be addressed

#### Targets and interventions

## Advertising and marketing food to children

'Competitive product advertising cannot reasonably be expected to perform the same role as education and public information in promoting a varied and balanced diet. At the same time it is important that such advertising should not undermine progress towards national dietary improvement by misleading or confusing consumers or by setting bad examples, particularly to children'

ITC Code of Advertising Standards and Practice

'Advertisements and promotions addressed to or featuring children should not exploit their credulity, loyalty, vulnerability or lack of experience.'

ASA British Codes of Advertising and Sales Promotion

- Food advertising comprises the largest category of products advertised to children on TV in the UK. <sup>67</sup> Food advertising accounted for 7 out of 10 ads on children's weekday ITV and 5 out of 10 ads on Saturday morning children's programmes. <sup>52</sup>
- 2000: Nutritional analyses of foods advertised to children in the UK find that overall, 95% of adverts are for foods high in fat and/or sugar and/or salt, 67,51,69 specifically:

## Actions currently being taken by retailers to encourage healthy eating

- Actions taken by the Co-operative Wholesale Society. Similar policy actions might be encouraged in other retailers. The Co-op has:
  - Committed itself to a voluntary ban on advertising, during children's TV hours, of all food and drink products high in fat, sugar or salt:<sup>69</sup>
  - ◆ Stated it will not use cartoon characters to promote foods high in fat, sugar or salt;<sup>51</sup>
  - Discounted 'healthy' products to encourage healthy eating. 64
  - ♦ Addressed access issues for low-income families by encouraging retailers to return to neighbourhoods, with 85% of stores in local shopping centres, high streets, etc. <sup>64</sup>
  - ◆ Committed to a 'right to know' policy, with comprehensive food labelling displaying information on fat, calories and salt levels on the front of food packs, and full nutrition information on the back; 64
  - Supported local and regional projects, through partnership work with local NGOs, nursery schools, schools and other groups (e.g. the Govan Healthy Eating Project, Get Cooking! and the Scottish Diet project), 64 and through instore promotions. 64
- Marks & Spencer 'Shaping up for a healthier nation' initiative – calorie-counted ready meals; and 'a new range of foods clinically proven to lower cholesterol' (due 2001).
- Marks & Spencer Children's Everyday Eating Range nutritional guidelines for children, giving recommended daily intake of calories, fat and salt suitable for children aged three to six, 65 and products based on these levels, with controlled

- ♦ 16% of adverts aimed at children were for bread, other cereals and potatoes;<sup>69</sup>
- 0% for fruit and vegetables;<sup>69</sup>
- 10% for milk and dairy foods;<sup>69</sup>
- ◆ 4% for meat, fish and alternatives:<sup>69</sup>
- 62% for products high in fat;<sup>69</sup>
- 50% for products high in sugar;<sup>69</sup>
- 61% for products high in salt. 69
- 1995: 80-100% of all food advertising on television was for foods that are high in fat, sugar or salt. 52
- 'Children who watch TV see about one food advert every 5 minutes and usually for foods high in fats, sugar or salt. The greater the television viewing of a child, the more likely they are to have unhealthy, high fat food habits and unhealthy concepts about food. They also ask their parents to buy more foods advertised on television.' 53
- Children say they buy food to get a free gift, collect tokens, etc. 73% say they respond to adverts by asking a parent to buy a product; 29% say they don't take no for an answer.
- Advertisers use a range of techniques particularly attractive to children to promote foods that are generally high in fat and/or sugar and/or salt – including competitions, free gifts, endorsements by pop and sporting stars, and cartoon characters on packaging. <sup>54,55</sup>
- For every nutritionally 'good'

- levels of calories, fat, carbohydrates, protein and salt for children aged three to six.<sup>65</sup>
- Sainsbury's Blue Parrot range (to be launched spring 2001). 66

# Other policy measures to improve the manufacturing, retailing and marketing of food to children

- More research is needed into the effects of advertising to children (not sponsored by the advertising industry<sup>22</sup>) For instance, what is the *cumulative* effect of advertising on children's eating behaviour and understanding of nutrition and health?<sup>67</sup>
- Research into the effects of advertising on consumption behaviour (especially of fat, sugar and salt) – using evidence from countries where bans or restrictions on advertising to children are in place.<sup>67</sup>
- Research into the effects of advertising on consumption behaviour (especially of fat, sugar and salt) using evidence from countries with high levels of advertising to children, e.g. Australia.
- Review of dietary statistics, pan-Europe, of children's intakes of various nutrients.
- Monitoring of the advertising spend on key food products, such as chocolate.
- Establishment of a campaigning coalition to achieve a ban on advertising of children's junk food –support already expressed by the Food Commission, National Council of Women, <sup>68</sup>
  Sustain and members of Sustain's Food Labelling and Marketing working party, <sup>22</sup> and Co-operative Wholesale Society. <sup>69</sup> Guidelines may be drawn up by the FSA.
- Review of ASA and ITC remit to consider total effects of advertising, particularly to children, rather than only on a case-by-case basis.<sup>61</sup>
- ITC and ASA to consider making a distinction between general products for children and foodstuffs. The Radio Authority, for instance, states that 'Advertising must not suggest that confectionery and snack food products may be substituted for balanced meals.' 70

- food product designed for and marketed at children, there are ten nutritionally 'bad' products (judgement based on the guidance on high and low levels of fats, sugars and salt issued by MAFF, 1996).<sup>39</sup>
- The food and advertising industries are opposed to the idea that marketing and advertising may influence dietary behaviour for the worse. For example:
  - ◆ The Advertising Association: 'The main causes of bad health stem from a wide variety of factors, many of which are unrelated to food choices.' 'Children in particular have to develop the ability to make critical comparisons and informed decisions. Advertising can help them to do this and become "consumer-aware".' '56
  - ♦ The Food and Drink Federation: 'We take the view that there is no such thing as a good or bad food, just a good or bad diet. The odd snack or chocolate bar will not hurt. [...] It is unfair to say companies are 'undermining' healthy eating messages.' 57
- Research into the effects of advertising tends to focus on emulation of aggressive behaviour; fears and other emotions; and the understanding of advertising conventions. <sup>58</sup> It does not generally address issues of inappropriate nutritional messages.
- The Advertising Standards
  Authority (ASA) and the
  Independent Television
  Commission (ITC) codes of
  advertising do not include
  guidance on nutritional

- Strengthening of A SA, ITC and Radio Authority policy to control advertising to children of food products that:
  - ◆ Contain high levels of fat (particularly saturated fat) and/or sugar and/or salt;
  - ◆ Imply healthy eating through fortification with vitamins and minerals (especially when the products contain high levels of fat and/or sugar and/or salt:
  - Carry health claims or implied health claims such as 'xx% fat free'.
- Review of health claims on children's food: a priority for the Joint Health Claims Initiative. Particularly health claims on foods aimed at children<sup>71</sup>, and implied health claims on foods fortified with vitamins and minerals that are high in sugar and/or salt and/or fat (particularly saturated fat).
- Regular monitoring of children's key points of contact for food information, e.g. TV adverts; children's magazines; supermarket mailings; sponsorship of children's films and TV shows; endorsements by pop and sporting stars, etc.
- The establishment of an accreditation system for providers of educational materials, from all sources, but particularly those featuring food or branded food products, independently assessed, helping teachers assess the quality and reliability of the content. Criteria might be based on voluntary guidelines (already drawn up by a project team of the Nutrition Task Force<sup>22</sup>), or on the NCC guidelines. <sup>62</sup> The NCC guidelines address:
  - ♦ Educational relevance:
  - ♦ Balance and objectivity;
  - ♦ Consultation and testing,
  - Sales and promotional messages.
- DH/DfES to draw up guidelines for schools making links with the public sector with special reference to health education impacts.<sup>22</sup>
- Monitoring of the effect that retailer initiatives have on the sales of fatty, sugary or salty foods, and circulation of this information to other major retailers.

- considerations, <sup>59,60</sup> nor do they reflect nationally agreed recommendations for changing consumption patterns, <sup>61</sup> nor do they distinguish between general products for children and foodstuffs.
- Promotions featuring branded goods and food products are targeted at schools in the guise of educational materials. A code of good practice exists for such materials, published by the National Consumer Council, but this is often ignored, resulting in conflicting messages on nutrition. A survey of head teachers in the South of England found that teachers have no formal way of assessing material which is sent to them and that 89% would welcome an education pack to help them address this issue.
- Supermarket shelf space devoted to fruit and vegetables in comparison to soft drinks (index of health): using representative supermarkets (e.g. Lidl, Waitrose, Tesco).

#### 4. References

<sup>1</sup> Weaver, L. T. (1998) Poor Nutrition in Early Life: The beginning of the end? – paper delivered at the Food, Children & Health conference, 20<sup>th</sup> February, 1998, organised by Baby Organix.

Escobar et al. (1991) Archives of diseases in childhood, vol 70.

The Scottish Low Birthweight Study 1 and II. (1992) Archives of diseases of childhood, vol 67.

- Richards, M.; Hardy, R.; Kuh, D.; Wadsworth, M. E. J. (2001) Birth weight and cognitive function in the British 1946 birth cohort: longitudinal population based study, in British Medical Journal volume 322, 27 Jan. Pharaoh et al (1994) Archives of diseases of childhood, vol 70.
- HEA. (1989) Diet, nutrition and healthy eating in low income groups. London: Health Education Authority. House of Commons Health Committee. (1992) Maternity Services second report. Vol 1, 1992.
- Abrams. (1993) Maternal nutrition and pregnancy outcome. Annals of the New York Academy of Sciences (Keen et al, eds), vol 678.

- Roberts, H. (2000) *What Works in Reducing Inequalities in Child Health*. London: Barnardo's. Henderson, L.; Kitzinger, J.; Green, J. (2000) *Representing infant feeding: Content analysis of British media* portrayals of bottle feeding and breast feeding, in British Medical Journal, Volume 321, 11 November.
- Gregory, J.; Collins, D. L.; Davies, P. S. W.; Hughes, J. M.; Clarke, P. C. (1995) *National Diet and Nutrition Survey: Young people aged*  $1^{1}/_{2}$  to  $4^{1}/_{2}$  years. Vol. 1, Report of the diet and nutrition survey. London: The Stationery Office.
- <sup>12</sup> BASCD. (1998) *The dental caries experience of 5-year-old children in the UK*. British Association for the Study of Community Dentistry.

  13 Gregory, J.; Hinds, K. (1995) *National Diet and Nutrition Survey: Children aged 1.5 to 4.5 years, Volume 2:*
- report of the dental survey. London: The Stationery Office.
- De la Hunty, A.; Ladert, D.; Clarke, P. C. of the Department of Health. (2000) What British children are eating and drinking at age 12-18 months. In Journal of Human Nutrition and Dietetics 13, pp. 83-86. (cited by Susie Gordon)
- Gibson, S. (1997) Non-milk extrinsic sugars in the diets of pre-school children: Association with intakes of micro-nutrients, energy, fat and NSP. British Journal of Nutrition, 78, 367-378.

  The Food Commission. (2000) Babies beware: watch out for the health hazards! in Issue 48 of The Food
- Magazine. London: The Food Commission.
- Sustain (Winter 2000/2001) Maternal and Child Health, referring to Maternity Alliance campaign on a national strategy to ensure maternal and child health, in Let us Eat Cake! London: Sustain.

Maternity Alliance. (1988) Poverty in pregnancy. London: Maternity Alliance.

- Dallison, J.; Lobstein, T. (1995) *Poor expectations: Poverty and undernourishment in pregnancy*. London: The Maternity Alliance.
- <sup>20</sup> Cited by Abrams, 1993, Annals of the New York Academy of Sciences, vol 678. Also cited by: Dallison, J.; Lobstein, T. (1995) Poor expectations: Poverty and undernourishment in pregnancy. London: The Maternity Alliance.
- Lobstein, T. (1987) Warding Off the Bottle: Implementing the WHO Code of Marketing of Breastmilk Substitutes, a survey of London's maternity wards. London: The London Food Commission.
- James, W. P. T.; McColl, K. A. (1997) Healthy English Schoolchildren: A new approach to physical activity and food. Aberdeen: Rowett Research Institute.
- Tedstone, A.; Aviles, M.; Shetty, P.; Daniels, L. (1998) Effectiveness of interventions to promote healthy eating in pre-school children aged 1 to 5 years: A review. London: Health Education Authority.
- Gregory, J.; Lowe, S.; Bates, C. J.; Prentice, A.; Jackson, L. V.; Smithers, G.; Wenlock, R.; Farron, M. (2000) National Diet and Nutrition Survey: Young people aged 4 to 18 years, Vol. 1, Report of the diet and nutrition survey. London: The Stationery Office.

  25 The Food Commission. (2000) Survey shows children's nutrition a disaster zone, in Issue 50 of The Food
- Magazine. London: The Food Commission.
- <sup>26</sup> Gardner Merchant. (1996) *School Meals Survey 1996*. Kenley: Gardner Merchant (now Sodexho).
- Ministry of Agriculture, Fisheries and Food (1998) National Food Survey 1997, London: The Stationery
- Office.

  Department of Health. (1996) Low income, food, nutrition and health: Report from the Nutrition Task Force. London: DH, cited in Health Development Agency (2000) Coronary Heart Disease: guidance for implementing the preventive aspects of the National Service Framework. London: HDA / NHS.
- <sup>29</sup> Sustain. (2000) A Battle in Store? A discussion of the social impact of the major UK supermarkets. London: Sustain: The alliance for better food and farming.
- <sup>30</sup> DH. (1 June, 2000) *Study shows children are not eating enough fruit and vegetables.* Press Release. London: Department of Health.

- National Heart Forum. (2000) *Healthy directions: Towards preventing coronary heart disease.* Annual review 1999/2000. London: National Heart Forum.

  The World Cancer Research Fund report on *Diet and Cancer*, cited in: Weeks, J; Daly, B. (2000) *Food*
- <sup>32</sup> The World Cancer Research Fund report on *Diet and Cancer*, cited in: Weeks, J; Daly, B. (2000) *Food Policy: an effective way forward for oral health promotion*. Papers from the Oral Health Promotion Research Group annual conference held at the University of North London, 4<sup>th</sup> November, 1999. London: Eden Bianchi Press.

<sup>33</sup> NHS. (2000) *The National School Fruit Scheme*. London: Department of Health.

- <sup>34</sup> The Lancet. (2001) Commentary: *How sugar-containing drinks might increase adiposity in children*. Vol 357. February 17, 2001, p. 490.
- <sup>35</sup> The Lancet. (2001) *Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis.* Vol 357. February 17, 2001.

  <sup>36</sup> Dietz, W.; Bellizzie, M.; Guillaume, M.; Seidell, J.; Garza, C.; Franklin, M.; Cole, T. (1999) *The prevalence*
- <sup>36</sup> Dietz, W.; Bellizzie, M.; Guillaume, M.; Seidell, J.; Garza, C.; Franklin, M.; Cole, T. (1999) *The prevalence of overweight children worldwide*. Draft report by the Childhood Obesity Working Group of the International Obesity Task Force.
- Kinra, S.; Nelder, R.; Lewendon, G. (2000) Deprivation and childhood obesity: A cross-sectional study of 20,973 children aged 1 to 5 in Plymouth, UK, in Journal of Epidemiology and Community Health 54, pp 456-460.
- <sup>38</sup> DH. (22<sup>nd</sup> June, 2000) *Health Minister Lord Hunt welcomes first ever national study into links between diet and dental health in young people.* Press release. London: Department of Health.
- <sup>39</sup> Lobstein, T.; Fitzhugh, K. (2000) *Children's Food Examined: An analysis of 358 products targeted at children*. London: The Food Commission.
- <sup>40</sup> COMA. (1989) Report of the Committee on Medical Aspects of Food Policy Panel on Dietary Sugars, Dietary sugars and human disease. Department of Health report on health and social subjects No. 37. London: The Stationery Office.
- Stationery Office.

  41 Sustain (2000) Sweet and Sour: the impact of sugar production and consumption on people and the environment. London: Sustain, The alliance for better food and farming.
- Weeks, J; Daly, B. (2000) Food Policy: an effective way forward for oral health promotion. Papers from the Oral Health Promotion Research Group annual conference held at the University of North London, 4<sup>th</sup> November, 1999. London: Eden Bianchi Press.
   Health Education Trust. (2000) The Chips are Down: A guide to food policy in schools. Alcester: Health
- <sup>43</sup> Health Education Trust. (2000) The Chips are Down: A guide to food policy in schools. Alcester: Health Education Trust/School Nutrition Action Group.

  <sup>44</sup> NFA. (1997) *The food we deserve: The National Food Alliance's food policy proposals.* London: National
- NFA. (1997) The food we deserve: The National Food Alliance's food policy proposals. London: National Food Alliance (now Sustain: The alliance for better food and farming.)
   Gardner Merchant. (1996) What are our children eating? The Gardner Merchant School Meals Survey.
- Kenley: Gardner Merchant Educational Services (now Sodexho), cited in James, W. P. T. & McColl, K. A. (1997) *Healthy English Schoolchildren: A new approach to physical activity and food.* Aberdeen: Rowett Research Institute.
- Research Institute.

  46 Consumers Association. (1992) School Dinners: Are they worth having? Which?, September 1992, pp502-4.

  London: Consumers Association.

  47 Decrease (1990) Notice of the last o
- <sup>47</sup> DfEE. (1999) *National Healthy School Standard: Guidance*. London: Department for Education and Employment.
- Employment.

  48 McMahon, W.; Marsh, T. (1999) Filling the Gap: Free school meals, nutrition and poverty. London: Child Poverty Action Group.

  49 Deep (1998) From Proceedings of Computer School Marsh (1998) From Proceedings of Compute
- <sup>49</sup> DfEE. (1998) *Ingredients for Success: A consultation paper on nutritional standards for school lunches*. London: Department for Education and Employment.
- <sup>50</sup> Hird, V. (2001) *The bitter-sweet story of sugar...* in *Digest*, the newsletter of Sustain: The alliance for better food and farming, Winter 2000, Number 37. London: Sustain.
- Dibb, S.; Gordon, S. (forthcoming, 2001) TV Dinners: What's being served up by the advertisers? London: Sustain: The alliance for better food and farming.

  52 Dibb S.: Gordon A. (1995) F.
- <sup>52</sup> Dibb, S.; Castell, A. (1995) Easy to swallow, hard to stomach: The results of a survey of food advertising on television. London: National Food Alliance, cited in James, W. P. T. & McColl, K. A. (1997) Healthy English Schoolchildren: A new approach to physical activity and food. Aberdeen: Rowett Research Institute.

  <sup>53</sup> Simport W. M. (1995) The Activity and food.
- 53 Signorelli, N. and Lears, M. (1992) *Television and children's conceptions of nutrition: Unhealthy messages*. Health Commun. 4 (4): 245-57. Taras, H. L.; Sallis, J. F.; Patterson, T. L.; Nader, P. R.; Nelson, J. A. (1989) *Television's influence on children's diet and physical activity.* Journal of Developmental Behav. Pediatr. 10(4): 176-80. Robinson, T. N.; Killen, J. D. (1995) *Ethnic and gender differences in the relationships between television viewing and obesity, physical activity, and dietary fat intake.* Journal of Health Education 26(2 suppl): S91-S98. All cited in James, W. P. T. & McColl, K. A. (1997) *Healthy English Schoolchildren: A new approach to physical activity and food.* Aberdeen: Rowett Research Institute.

Food Commission. (2000) Children's food – ten bad products for every good one, in The Food Magazine, issue 49, April/June 2000.

The Advertising Association. (August 1994) Executive Briefs on key issues in advertising: Food Advertising to Children. London: Advertising Association.

HACSG. (Autumn 2000) Junk food firms targeting children face a clampdown, in the Journal of the Hyperactive Children's Support Group.

Young, B. (1998) Emulation, Fears and Understanding: A review of recent research on children and television advertising. University of Exeter / London: ITC.

ASA. (2000) The British codes of advertising and sales promotion. London: Advertising Standards Authority. 60 ITC. (Autumn 1998) ITC code of advertising standards and practice. London: ITC.

<sup>61</sup> Dibb, S. (1993) Children: Advertisers' Dream, Nutrition Nightmare? The case for more responsibility in food advertising. London: The National Food Alliance (now Sustain: The alliance for better food and farming).

NCC. (1996) Guidelines on sponsorship of educational materials. London: National Consumer Council. <sup>63</sup> Rundall, P. (1997) Baby Milk Action survey on sponsored materials. Personal Communication, cited in James,

W. P. T. & McColl, K. A. (1997) Healthy English Schoolchildren: A new approach to physical activity and food. Aberdeen: Rowett Research Institute.

<sup>4</sup> Sustain. (1999) Tackling inequalities in health and diet-related disease: Developing successful inter-agency partnerships to promote fruit and vegetable consumption particularly to low-income groups. A report of a National Food Alliance seminar held on 20 January, 1999 at The Royal United Services Institute, Whitehall, London: London: Sustain: The alliance for better food and farming.

Marks & Spencer. (October, 2000) Shaping up for a healthier nation with Marks & Spencer. Press release.

London: Marks & Spencer.

66 Sainsbury's. (9 January, 2001) Sainsbury's launches healthier food range for children. Press release. London: Sainsbury's.

Dibb, S. (1996) A Spoonful of Sugar: Television food advertising aimed at children: An international

comparative survey. London: Consumers International.

68 Letter from the President of the National Council of Women (Mrs Marie Birkenhead) to the Coordinator of Sustain: The alliance for better food and farming, reporting on a resolution passed and ratified at the NCW AGM 2000 on a call for a ban on TV sales commercials aimed at children under 12. London: NCW.

<sup>69</sup> Cooperative Wholesale Society. (2000) Blackmail: The first in a series of inquiries into consumer concerns about the ethics of modern food production and advertising. Manchester: CWS.

Radio Authority. (December 2000) Advertising and sponsorship code. London: Radio Authority.

NCC. (1997) Messages on food: Consumers' use and understanding of health claims on food packs. London: National Consumer Council.

<sup>&</sup>lt;sup>54</sup> The Food Commission. (1999) *Back to school special*, in *The Food Magazine*, issue 47, Oct/Dec 1999. London: The Food Commission.