



postnote

July 2003 Number 199 Report Summary

IMPROVING CHILDREN'S DIET

Recent years have seen an increasing focus on improving children's diet as part of an overall strategy for preventing chronic disease. This has been prompted by evidence that: young people in the UK and elsewhere are eating too much saturated fat, sugars and salt and too few fruit and vegetables; some conditions – notably diabetes and obesity – are increasingly affecting children; diseases normally associated with adult life have their roots in poor eating habits during childhood. This note summarises a forthcoming POST report which looks at the evidence linking children's diet with chronic disease, details recent trends and analyses the policy options for improving children's diets.¹

Diet and health

It is important that children eat both the right amount and the right types of food because:

- diet is a key factor affecting the growth and development of a child;
- a healthy balanced diet can help prevent diseases in childhood such as anaemia, dental decay and childhood obesity;
- and, in the longer term, can protect against diseases in later life such as heart disease, stroke, obesity, osteoporosis and certain types of cancers.

The POST report describes the key dietary components and looks at the evidence linking these factors with health. It considers expert advice on what constitutes a healthy diet and summarises the guidance (see box 1). In practice, this means eating a balanced diet consisting of a mixture of different foods including plenty of fruit and vegetables and starchy foods, moderate amounts of meat, fish, milk and dairy products with small intakes of fatty and sugary foods.

Box 1 Expert advice on diet, nutrition and health

Current policy on diet, nutrition and health is based on advice from bodies such as the World Health Organisation (WHO) and the UK Committee on Medical Aspects of Food and Nutrition Policy (COMA). Overall, COMA recommends:

- Energy – no more than 33% of total energy from fats, no more than 10% from NME² sugars with starch and other carbohydrates providing the bulk of the rest.
- Fats – in addition to reducing overall intakes of fats, people should reduce their intakes of saturated and trans-fatty acids (to no more than 10% and 2% of total energy respectively).
- NME sugars – average intakes of NME sugars should be reduced (to less than 10% of total energy) because of the risk of tooth decay.
- Salt – average salt intakes should be reduced because of the risk of high blood pressure and heart disease.
- Fruit and vegetables – people should eat at least five portions a day because of the protective effects against chronic diseases.

Trends

Dietary trends

The report presents data from the 1997 National Nutrition and Dietary Survey (NDNS) of young people aged 4 to 18 years, published in 2000. As outlined in box 2, the main findings of the survey are that children are consuming:

- too much saturated fat, salt and (NME)² sugar;
- too few fruit and vegetables.

Trends in diet-related conditions

Obese and overweight children

As the table overleaf illustrates, there has been a significant increase in the prevalence both of overweight and obese children in Scotland and England between 1984 and 1994. Around 1 in 10 boys and 1 in 7 girls

Box 2 Dietary trends

- Energy - average energy intakes across all age ranges were lower than the requirements estimated by COMA and lower than those recorded in a 1983 survey. However, as discussed in the POST report, the survey does not take account of food eaten outside the home, and may be subject to under-reporting.
- Fats - average intakes of fat were broadly in line with the COMA recommendation (<33% of food energy). However, average intakes of saturated fat were higher (~14%) than COMA's recommendation of no more than 11% of total energy.
- NME sugars - intakes of NME sugars exceeded the COMA recommendation of 10% of total energy. On average, males derived 16.7% and females 16.4% of their food energy from NME sugars. Soft drinks (75% of the survey group drank sugar-sweetened carbonated drinks) and chocolate were the main sources of NME sugars.
- Salt/sodium - average intakes of both sodium and chloride were around twice the levels recommended by COMA for adults (about 8g salt per day compared with the recommended 4g/day).
- Vitamins and minerals - vitamin intakes were generally comfortably above the levels recommended by COMA. Intakes of zinc, calcium, potassium and magnesium were below reference levels in older age groups, and iron intakes were particularly low in older girls.
- Consumption of fruit and vegetables - on average, young people consumed less than half of the recommended 5 portions of fruit and vegetables a day. Around 1 in 5 of the group ate no fruit in the week they were surveyed.

were overweight, with obesity rates rising to ~2% for boys and ~3% for girls. Analyses of the Health Survey for England suggests that this trend has continued, with 8.5% of 6 year olds and 15% of 15 year olds estimated to be obese in 2001. This reflects a wider trend among the adult population in the UK; the National Audit Office (NAO) estimates that by 2010, one in four of the adult population will be obese.³ It notes that the increase in obesity has been too rapid to have a genetic basis, concluding that the underlying causes must be related to changes in eating patterns and levels of physical activity.

Rising rates of obesity in children are a particular concern because they pose significant risks for the health of the future adult population, increasing the risk of death, coronary heart disease, type 2 diabetes, some cancers and osteoarthritis in later life. Overall, the NAO estimates that obesity costs the UK some £2.6 billion each year.

Type 2 diabetes

Type 2 is the most common form of diabetes accounting for some 90% of all cases in the UK. In contrast to type 1 diabetics (who need regular doses of insulin), type 2 diabetes is managed by dietary or drug interventions to reduce the levels of glucose in the blood. Type 2 diabetes is very rare among young people: a 1999 survey in Tayside showed that only 0.3% of cases were found in people under 45. Until recently, type 2 diabetes was not a condition associated with children, occurring only very rarely in people under 14, and then only among ethnic groups with a high predisposition to diabetes.

Table trends in prevalence of overweight and obese 4-12 year olds between 1984 and 1994

	1984	1994
% overweight boys		
England	5.4%	9%
Scotland	6.4%	10%
% overweight girls		
England	9.3%	13.5%
Scotland	10.4%	15.8%
% obese boys		
England	0.6%	1.7%
Scotland	0.9%	2.1%
% obese girls		
England	1.3%	2.6%
Scotland	1.8%	3.2%

Chinn S and Rona R.J, British Medical Journal, 322, 24-26, 2001

However, in 2002 details emerged of four cases of type 2 diabetes among obese white UK adolescents. There is also evidence from the US and Japan, countries where the obesity epidemic is more advanced, of increasing prevalence of type 2 diabetes among adolescents. Any such increase among young people would be of concern, as the longer people live with type 2 diabetes the more likely they are to encounter complications (e.g. heart disease and kidney, neurological, circulatory and vision problems). The research charity Diabetes UK estimates diabetes costs the NHS around £5.2 billion each year.

Children's food choices

A range of factors can influence children's food choices. Among those examined in the POST report are:

- Individual factors – including the development of tastes, and eating behaviours;
- Social factors - the context in which a child chooses foods and the impact of peers, other respected people, repeated exposure, and reward;
- Availability – economic and other factors that affect a child's access to different types of food, particularly among low income families;
- The foods themselves – properties of food products (colour, texture, shape, etc.) and the way these can be used to appeal to children;
- Marketing and other promotional activities targeted at children, including TV advertising and promotions in schools (e.g. through collection schemes, provision of teaching resources and vending machines).

Policy issues

Encouraging healthy eating in schools

School provides an ideal setting for initiatives to encourage healthy eating because it provides an environment where some level of control over access to food and drink can be achieved, and allows messages about healthy eating to be delivered in an educational context. As described in the report, there are a wide range of policies to encourage healthy eating in schools.

National healthy schools standard (NHSS)

The NHSS is an accreditation scheme for schools, funded jointly by the Department of Health (DoH) and the Department for Education and Skills (DfES). Healthy eating is one of the eight key areas covered by the scheme and, to receive accreditation, schools must demonstrate that they have taken action to promote healthy eating throughout the school – both in the

classroom and the canteen. Some suggest that all schools should be required to set policies relating to healthy eating and that implementation should be assessed by Ofsted.

Compulsory nutrition standards

The government re-introduced compulsory nutritional standards for school lunches in England and Wales in 2001. This was widely welcomed, but there are concerns that there is no audit to check whether schools are complying with the requirement to monitor the nutritional quality of the food they provide. It has been suggested that an audit could be built into the Ofsted inspection process.

Food and nutrition in the national curriculum

There is concern that young people are not learning how to cook healthy, safe meals either at school or at home. All primary schools are expected to teach food preparation, cooking and hygiene as it forms part of the National Curriculum. However, from age 11 this requirement is dropped. While it is thought that most schools teach at least some cooking to pupils in the 11-14 age range, many groups believe that this should become a compulsory part of the curriculum. This proposal was rejected by DfES when the National Curriculum was reviewed in 2000, and would have significant resource implications for some schools. In 2002, almost a fifth of pupils opted to take food technology GCSE (this has largely replaced domestic science). A quarter of these entries were from boys.

National school fruit scheme (NSFS)

The NSFS was announced in July 2000, as a new national scheme entitling every 4-6 year old in the country to a free piece of fruit each day. Following evaluation of pilot schemes, the NSFS is currently being scaled up to distribute around 440 million pieces of fruit to over 2 million 4-7 year olds in all 18,000 state primary schools across England each year, aided by £42million of funding from the National Opportunities Fund. The scale-up will be complete by 2004. The scheme has been widely welcomed, but key future challenges include:

- Showing a positive, sustained impact on children's dietary choices outside of the school context;
- Increasing the diversity of fruit and vegetables available in the scheme and using locally-grown (rather than imported) produce where possible;
- Ensuring that children are not exposed to increased levels of pesticides as a result of the scheme;
- Extending the scheme to older children through funding of initiatives such as the Grab 5! project, which is organised by the charity Sustain and promotes fruit and vegetable consumption by 7-11 year olds.

Promotion/sponsorship in schools

Commercial activities targeted at schools can benefit both schools and business. Schools may receive free teaching resources that are relevant, attractive and easy to use, and may benefit from collection schemes that

allow vouchers or wrappers to be swapped for books, computers or sports equipment. Business may benefit by promoting brand awareness and marketing products. But concerns that companies could use such approaches for marketing inappropriate products, or as a way of disseminating conflicting messages about healthy eating and food have led to calls from consumer and health groups for a ban on such activities in schools.

Best practice principles have been drawn up to give guidance on the standards expected. However, schools make decisions individually about what level of commercial activity is acceptable, and practices may vary within schools from one teacher to another. Sustain has launched an initiative to collect information on the extent of commercial activities with a view to compiling a report that schools can use to inform their policies.

Encouraging healthy eating outside of school

There are also a range of policies aimed at improving access to a healthy diet in the wider world. These take a life-course approach to try and ensure that pregnant women, infants and schoolchildren have access to a healthy diet and focus on helping the underprivileged.

Infant feeding

The Department of Health (DoH) now advises mothers to exclusively breastfeed for the first six months. The NHS has set a target to increase breastfeeding by 2% per year by focusing on women from disadvantaged groups, and the DoH is funding an infant feeding initiative to this end.

Healthy Start

DoH has been consulting on reform of the Welfare Foods Scheme which provides means-tested tokens for milk (liquid milk and infant formula). The aim is to use the resources more effectively to ensure children in poverty have access to a healthy diet. The new Healthy Start (due in 2004) will provide a fixed value voucher (possibly linked to take-up of antenatal services) to allow purchase of fruit and vegetables, cereal-based and other foods for weaning, as well as providing milk and infant formula.

Sure Start

Healthy eating is also a strand of Sure Start, a policy focused on families and children up to the age of four living in the most deprived neighbourhoods. It aims to improve health and well-being by improving access to family support, advice on nurturing, health services and early learning. By 2004, there will be some 524 local programmes involving around 400,000 children.

5 A DAY programme

The NSFS is part of a larger 5 A DAY initiative to encourage people to eat more fruit and vegetables. It consists of: local initiatives backed by lottery funding to improve access in deprived areas; a communications programme to raise awareness of the benefits of 5 A DAY; work with industry, producers, caterers, retailers to improve access and promote the 5 A DAY message; and an evaluation and monitoring programme. Issues discussed in the POST report include a lack of awareness

of the 5 A DAY message, confusion over what constitutes a portion and over which foods count towards the 5 A DAY target. In particular, there is currently debate over the nutritional criteria used to determine which processed foods should count. At present, only minimally processed fruit and vegetable products that contain no added fat, sugars or salt can be licensed to carry the official 5 A DAY logo, although DoH is currently considering how to develop the criteria for processed foods. In the meantime, supermarkets and food manufacturers are running their own 5 a day schemes using different nutritional criteria.

Reducing intakes of fat, sugars and salt

The POST report also details initiatives aimed at reducing intakes of fat, sugars and salt, including:

- Food industry initiatives in conjunction with the DoH and Food Standards Agency (FSA) to reduce levels of fat, sugars and salt in processed foods and to reduce portion sizes. While significant reductions in salt levels in bread have been achieved, a recent FSA survey showed that there is scope for further reduction of salt levels in ready meals.
- The need to improve food labelling and consumer's understanding of it. In particular, the report describes recent FSA initiatives to improve the clarity of nutritional labelling and to more clearly define claims such as 'low fat', 'lite', etc.

Although progress has been made in these areas, some consumer and health groups see a need for wider measures to further reduce intakes of fat, sugars and salt. They call for tighter regulation of advertising targeted at children, fiscal policies to encourage healthy eating and reform of agricultural policy.

Advertising targeted at children

The POST report examines the pros and cons of stricter regulation of advertising targeted at children. In general, research shows that a disproportionately large percentage of advertising targeted at children is for processed foods high in fat, sugars or salt. But it does not allow an assessment to be made of exactly what impact this has on children's eating behaviour, given the plethora of other potential influences.

Consumer and health groups have called for EU or UK legislation to restrict the marketing of fatty, sugary and salty foods, and for the food industry to cease advertising such foods to children. Their concerns focus on the cumulative effect and sheer weight of advertising. They argue that current codes of practice are designed to ensure that no individual advert violates specific health concerns, for instance by actively disparaging good dietary practice or by encouraging excessive consumption. However the food and advertising industries suggests that the current regulatory system works well, that further regulation is unnecessary and potentially economically damaging, and that measures to promote a healthy diet and increase levels of physical activity are likely to prove most effective in improving children's diets and health.

Fiscal policies

Another potential approach to encouraging people to eat a healthier diet is through the taxation of foods of low nutritional value, with the money raised being used to fund public health nutritional campaigns. A number of approaches have been suggested such as introducing VAT on fatty, sugary or salty foods, or introducing a tax on the promotion of such foods. For instance, it has been suggested that extending VAT to cover the main sources of dietary saturates – whole milk, butter, cheese, biscuits, buns, cakes and pastries and puddings – while exempting cholesterol neutral foods could prevent some 900-1,000 deaths each year from heart disease.⁴ However, as discussed in the POST report, it is not clear how effective such measures would be at reducing consumption, how the foods in question would be defined, or what the effect would be on low income consumers.

Reform of agricultural policy

Some argue that it makes little sense to spend public money trying to dissuade people from eating foods high in fats and sugars on the one hand, while subsidising over-production of sugar and fats on the other hand. Such groups are thus calling for agricultural policy to be reformed, to switch the emphasis away from subsidising production, particularly in the dairy and sugar sectors, and towards local production of fruit and vegetables and more environmentally sustainable ways of managing the countryside. The report describes recent developments in negotiations for mid-term reform of the common agricultural policy, and analyses their likely impact.

Overview

There is widespread agreement on the need to improve children's dietary and physical activity patterns.⁵ The POST report focuses on improving children's diets and describes a wide range of policy initiatives to improve children's access to a healthy diet, tackle food inequalities, and improve children's and parent's knowledge of healthy eating. All agree that such policies are a step in the right direction. A key question for Parliamentarians is whether further legislation, regulation or fiscal policies are needed to reduce intakes of fatty, sugary and salty foods.

Endnotes

- 1 *Improving children's diet*, POST report 199, July 2003. This report is available from POST. It is free to Parliamentarians, and costs £10 for non-parliamentarians. See below for details.
- 2 NME sugars – non-milk extrinsic sugars, essentially sugars that are added to foods rather than those that are an intrinsic part of the food structure (e.g. sugars found inside plant cells).
- 3 *Tackling Obesity in England*, NAO, 2001.
- 4 Marshall T, *British Medical Journal*, 320, 301-305, 2000.
- 5 POSTnote 162, *Health Benefits of Physical Activity*, October 2001.

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