FOOD, NUTRITION AND PUBLIC POLICY

Mapping the links between public policy and nutritional wellbeing.

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SUMMARY

A large and growing body of work exists to highlight both the very considerable scope for nutritional change to benefit health, and the important role that socio-economic factors play in people’s food choices. As yet, however, little is known about the impact that government policies have via these socio-economic determinants upon the way people eat and hence on their health. In other words, there is little evidence to demonstrate that policy x leads eventually to nutritional health outcome y. We believe that reviewing the evidence base for the various links between policy and health could be a worthwhile step towards this.

It is not the purpose of this scoping review to undertake a full analysis of the effects of all government policies upon peoples’ diets and health. This massive task would require an in-depth, formal literature review and neither time nor funds are as yet available.

Instead, our aims here are to:

• map out the policy areas which we believe to be important and which may have a bearing upon what people eat
• articulate questions regarding the links between policy and health outcome that could form the basis for a future policy based health impact assessment
• identify (at a broad level) what research exists on the links between the policy determinants and the health outcomes
• point to areas where further research may be needed.

We look at a range of government policies, some which have specific health/food goals and some that do not focus upon food at all. These policy areas include:

• Direct health focused interventions
• Education and training
• Advertising and labelling
• Agricultural policies
• Social exclusion and poverty
• Working hours

The last area (working hours) perhaps stands out a little from the others because it is very much a cultural as well as a political issue. However, we have included it in the scope of our work to illustrate that policies that appear to be far removed from food issues may nevertheless exert a strong influence upon people’s eating choices.

Our work, although limited in scope and depth by lack of time, suggests that:

• Some of Government’s specifically health-focused policies have made a positive contribution to the way people eat and although many of the more recent interventions have yet to be evaluated formally, the initial findings appear promising.
• The debate about food and health must be situated within a broader policy context, one which looks not just at specific health policies but at those which affect the social and economic arena; government action to improve public health needs to adopt this broad and ‘joined up’ approach.
• The limited evidence that does exist suggests that on the whole, the main thrust of government economic and social policies have not explicitly considered
nutritional needs, and that there is considerable scope for changes that would encourage people to eat a healthier diet.

- Key barriers to healthier eating include: low income, lack of access (for many) to shops selling affordable healthy food, the impact of advertising especially on children, and possibly, European agricultural policies.
- The recommendations of the Social Exclusion Unit (PAT 13), if implemented fully, could make an important contribution to reviving the local retailing economy.
- More evidence-based work into the impact of government policies - not just those directly connected with health - is needed. In particular, it would be useful to identify policy changes that exert a positive influence on peoples’ diets, overseas as well as in the UK.

Navigating this report

Part one begins with a brief overview of the approach we take. We emphasise that the purpose of this study is to map out the links between policies and health outcomes without actually conducting a full health impact assessment of those policies. This would, we hope, be the subject of a later and longer piece of work.

In part two we look briefly at diet in the UK – how people eat, what the effects are on their health and the arguments in favour of making changes to our diet.

Part three, the main body of the report, looks at the links between government policies and people’s diets and hence their health. We begin by looking at direct health interventions and then move onto the broader policy areas.

Within each sub section we provide a brief overview of the key issues followed by a question, or series of questions, which articulate the policy connection we are seeking to investigate. From here, we move on to look briefly at the evidence base to support this link between policy and health outcome and point, where necessary, to areas where further research may be needed.

PART ONE – INTRODUCTION

What do we mean by health impact assessment?

Health impact assessment examines the effect that a particular intervention has on a group’s health status. More formally it has been defined as ‘a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.’

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\[1\] WHO European Centre for Health Policy, Health Impact Assessment: Main concepts and suggested approach, Gothenburg Consensus Paper, , WHO Regional Office for Europe, Copenhagen. December 1999
This study is not a formal health impact assessment – it lacks several features, notably consultation with stakeholders. Rather it examines the evidence base for health impact assessment. Our emphasis is on how policies affect our nutrition-related health and what policy changes might be needed to improve the state of our health. Its primary focus is therefore not on the epidemiological details at the health outcome end, but rather on the determinants of the determinants – in particular, the policies that affect the socio-economic factors which in turn influence the way we eat, and hence our health. The diagram below illustrates the connection between the top layer (policies) and the bottom layer (health) which this study seeks to highlight.

A number of food/nutrition related policies have been or are in the process of being introduced by government, which aim to improve the nutritional wellbeing of the population as a whole - or specific subsections of that population, defined for instance in terms of age, chronic illness or ethnicity. The impacts of these policies upon people’s food choices and thus their health needs to thoroughly evaluated.

In addition, we also need to consider a range of other government policies whose focus may not be specifically health or nutrition focused but which nevertheless have an impact upon the food that people eat and hence their health. One example might be the benefits system, which affects household income, and which thus has a bearing on a variety of factors affecting food behaviour, including the availability and affordability of food.

This study is not a formal literature review. This may be the subject of a later and much larger piece of work. Our purpose here is simply to map out the policy areas which influence nutrition-related health and identify what research based evidence exists to demonstrate a link between these policies and people’s nutritional status. We also highlight gaps in the research base and suggest areas where future studies may be needed.

**The evidence base: does it exist?**

One major European research report believes that ‘The evidence base to identify effective ways of improving dietary and physical activity patterns is growing rapidly.’

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recent major study, by the International Union for Health Promotion and Education\(^3\)\(^4\) is just one example of the work that has been undertaken in the field.

However, others in the field of health impact assessment are not so optimistic, feeling that while the HIA approach is often used to examine the effects of localised interventions, few studies have applied the approach to the broader policy determinants of health. The authors of a study\(^5\) looking at the application of HIA to policy note that ‘The evidence for the effectiveness of suggested interventions was usually clearer for more specific ‘downstream’ proposals that focused on individuals (for example smoking cessation strategies such as nicotine replacement therapy) than for more macro level ‘upstream’ proposals focusing on legislation or cost (for example using fiscal policies to affect smoking prevalence). Systematic reviews and well designed evaluations have been more common in the evaluation of clinical interventions than in evaluations of social, economic, or educational policy. The fact that there is more evidence available about interventions aimed at individuals does not mean that interventions aimed at whole communities are not effective but rather reflects the paucity of good quality studies of these more ‘upstream’ interventions.’

The authors also conclude that the development of policy is not always based upon a sound evidence base demonstrating the effectiveness of the approach. Indeed in many cases, the evidence base to support certain policies or policy recommendations either does not exist or if it does, is not used by the advocates of these policies to support their case. They are disappointed to see ‘little empirical evidence about the effectiveness of strategies for reducing health inequalities. The material … contained a wealth of data documenting inequalities, and it described a growing amount of research that explored mechanisms through which these inequalities might be mediated, but there was little about effective interventions (partly reflecting the recent state of research in this field nationally and internationally). Many … consisted of wish lists of potentially useful interventions without evidence of their effectiveness in practice.’

It is the aim of this study to highlight the importance of the HIA approach both when analysing the impacts of government policies and in developing health-promoting alternatives to the policies that already exist.

**The scope of this research**

This scoping study examines:

- intentional health-related interventions and policies specifically designed to improve the quality of people’s diets

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broader socio-economic policies which may not have been designed with health in mind but which nevertheless do affect the food we eat.

It is beyond the capacity of this study to look at every area where government policy plays a part – time and funding have simply not permitted – and there are, consequently, large absences and gaps in the scope of the report. For example, while the study looks at some sub-sections of the population (pregnant women, low-income groups), it does not explore other groups, notably minority black and ethnic groups, nor the elderly. Lack of time has been the main reason for these omissions.

Moreover the report does not discuss how policies affecting demographic changes (including the increase in one-person households, ageing populations etc) might have impacted upon people’s diets. Nor does it examine processes such as globalisation, the impact of the World Trade Organisation and so forth. These processes, while they have an undeniable impact upon the food we eat, are an enormous and complex subject demanding a separate study (or studies) in their own right.

PART TWO: DIET IN THE UK

The average UK diet varies significantly from nutritional guidelines. This is not the place for a full discussion of the constituents of a healthy diet, of specific nutritional needs within the population or of the epidemiology of diet related disease. The following paragraphs merely summarise the main dietary conclusions of a number of key reports, and serve as a background to the ensuing policy discussion in part three.

Put at its simplest, we in the UK do not eat enough fruit and vegetables (a mere 2 –3 servings of fruit and vegetables a day compared to the recommended five) or complex carbohydrates, and we eat too much sugar and fat. The latter accounts for around 38% of our total energy, in contrast to the 35% of government recommendations. More radically, the World Cancer Research Fund recommends that we reduce this figure to between 15% and 30% of total energy.

There is general agreement that a healthy diet is one that is high in fruit, vegetables and complex grains and cereals, and low in fatty, salty and sugary foods. Such a diet can reduce the risk, or help in the management of a number of diseases including coronary heart disease, strokes, cancers, obesity, diabetes and osteoporosis.

Studies show that a diet rich in vegetables and fruits and low in saturated fats protects against a large number of non-communicable diseases, such as cardiovascular diseases

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9 *Nutritional Aspects of Cardiovascular Disease, Report of the Cardiovascular Review Group Committee on Medical Aspects of Food Policy*, Department of Health 1994
and certain cancers. These diseases are the most important causes of premature death in EU countries. Biochemical studies have demonstrated the links between the nutrient and non-nutrient constituents of vegetables and fruits and related protective physiological pathways.\(^\text{10}\)

Between 30% and 40% of all types of cancer are preventable by modifying our diets and by physical activity and the maintenance of appropriate body weight. Diets containing substantial and varied amounts of vegetables and fruits will prevent 20% or more of all cases of cancer.\(^\text{11}\) Government health policy (see below) places an especially strong emphasis on promoting increased fruit and vegetable consumption.

The World Health Organisation recommends a daily intake of more than 400 grams of vegetables and fruits per person.\(^\text{12}\) A large number of studies have confirmed that such a diet is associated with reduced all-cause mortality as well as reduced mortality from cardiovascular diseases and cancer.\(^\text{13}\)

Reviews of the cancer literature suggest that the risk of gastric carcinoma is reduced among those who consume higher amounts of vegetables and fruits. The incidence of colorectal cancer is also lower among higher consumers of vegetables and of fibre while breast cancer risk may be inversely related with intake of vegetables (especially yellow/green vegetables). In addition, a lower risk of carcinoma of the lung is associated with the intake of vegetables and especially of fruit.\(^\text{14}\) Reviews of the relationship between ischaemic heart disease (IHD) and vegetable and fruit intake also suggest a moderate protective effect and there is also evidence to suggest that it has protective effects against stroke.

It is difficult to estimate the extent to which IHD and other illnesses result directly from poor diet because many people with heart disease have multiple risk factors. However, as an estimate, European figures estimate the number of nutrition related cardiovascular deaths from heart disease as at least a third.\(^\text{15}\)

Joffe and Robertson estimate\(^\text{16}\) that increasing intake of vegetables and fruits up to the level of the highest consuming group could result in some tens of thousands of deaths saved each year under the age of 65 years. If the age group 65-74 were also included, the estimates would be roughly doubled.

Of course, increasing consumption of fruit and vegetables, while essential, is not the whole story. Reducing consumption of fat and increasing that of wholegrains is also

\(^{10}\) Joffe, Michael and Robertson, Aileen, *The potential contribution of increased vegetable and fruit consumption to health gain in the European Union*, Public Health Nutrition, forthcoming


\(^{13}\) Joffe, Michael and Robertson, Aileen, *The potential contribution of increased vegetable and fruit consumption to health gain in the European Union*, Public Health Nutrition, forthcoming

\(^{14}\) Joffe, Michael and Robertson, Aileen, *The potential contribution of increased vegetable and fruit consumption to health gain in the European Union*, Public Health Nutrition, forthcoming

\(^{15}\) Eurodiet: core report

\(^{16}\) Joffe, Michael and Robertson, Aileen, *The potential contribution of increased vegetable and fruit consumption to health gain in the European Union*, Public Health Nutrition, forthcoming
important. A Cretan Mediterranean diet was given to men in Lyon who had survived a myocardial infarction. It included higher intakes of vegetables, legumes, fruit and bread, and more fish, as well as substitution of types of fat and of types of meat (chicken for red meat). This total package, which goes considerably further than just increasing the vegetable and fruit intake, was associated with a fall in total mortality, in cardiac deaths and in incident cancers.\textsuperscript{17}

Dietary fibre has been shown to reduce the risk of death from coronary heart disease by 31\% in a randomised controlled trial and was associated with a 55\% reduction in a cohort study. In both studies, cereal fibre was more protective than that from fruit or vegetables, emphasising the importance of a wide range of foods of plant origin.\textsuperscript{18}

Obesity is a growing problem with obvious links to our eating habits. The World Cancer Research Foundation recommends that population average body mass indices throughout adult life should remain within the range of BMI 21-23 in order that individual BMI be maintained between 18.5 and 25. In 1996 61\% of men and 52\% of women were either overweight or obese.\textsuperscript{19} The Office of Health Economics estimates that obesity accounts for 5\% of heart attacks and strokes, 10\% of cases of osteoarthritis, 20\% of cases of hypertension and 80\% of cases of non-insulin dependent diabetes mellitus.\textsuperscript{20}

The table below taken from Lobstein T and Longfield J,\textsuperscript{21} summarises the current UK government recommendations for food intake and the dietary changes needed.

<table>
<thead>
<tr>
<th>Food types</th>
<th>Recommendations</th>
<th>Current UK levels</th>
<th>Changes needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fat</td>
<td>At most 35% energy</td>
<td>Over 38%</td>
<td>Decrease</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>At most 10% energy</td>
<td>16%</td>
<td>Decrease</td>
</tr>
<tr>
<td>Polyunsaturated fat</td>
<td>6% energy</td>
<td>5.8%</td>
<td>OK</td>
</tr>
<tr>
<td>Total protein</td>
<td>9-15% energy</td>
<td>15%</td>
<td>OK or decrease</td>
</tr>
<tr>
<td>Total carbohydrates</td>
<td>At least 49% energy</td>
<td>42%</td>
<td>Increase</td>
</tr>
<tr>
<td>Starchy foods</td>
<td>At least 39% energy</td>
<td>24%</td>
<td>Increase</td>
</tr>
<tr>
<td>Free sugars</td>
<td>At most 11% energy</td>
<td>24%</td>
<td>Decrease</td>
</tr>
<tr>
<td>Dietary fibre</td>
<td>12-24 g/day</td>
<td>12 g/day</td>
<td>Increase</td>
</tr>
<tr>
<td>Salt</td>
<td>4-8g/day</td>
<td>8 g/day</td>
<td>OK or decrease</td>
</tr>
<tr>
<td>Fruits and vegetables</td>
<td>At least 400 g/day</td>
<td>200 g/day</td>
<td>Increase</td>
</tr>
<tr>
<td>Pulses, nuts, seeds</td>
<td>At least 30g /day</td>
<td>30 g/day</td>
<td>OK or increase</td>
</tr>
<tr>
<td>Meat</td>
<td>At most 90 g/day</td>
<td>90 g/day</td>
<td>OK or decrease</td>
</tr>
</tbody>
</table>

Sources: WHO,\textsuperscript{22} UK Department of Health\textsuperscript{23} and UK Adult Nutrition Survey.\textsuperscript{24}

\textsuperscript{17} Joffe, Michael and Robertson, Aileen, \textit{The potential contribution of increased vegetable and fruit consumption to health gain in the European Union}, Public Health Nutrition, forthcoming

\textsuperscript{18} Joffe, Michael and Robertson, Aileen, \textit{The potential contribution of increased vegetable and fruit consumption to health gain in the European Union}, Public Health Nutrition, forthcoming

\textsuperscript{19} Health Survey for England, 1996

\textsuperscript{20} cited in Stockley, L, \textit{Nutrition related modules of the Health Education Authority's 'Evidence Base 2000': Healthy Weights}, HEA, undated

\textsuperscript{21} \textit{Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999}

\textsuperscript{22} \textit{Diet, nutrition and the prevention of chronic disease, executive summary}, World Health Organisation, Geneva, 1991

\textsuperscript{23} \textit{Dietary reference values for food energy and nutrients for the United Kingdom}, Report of the Committee on the Medical Aspects of Food Policy, Department of Health, HMSO, London 1991
PART THREE: POLICIES AND INTERVENTIONS

3.1 HEALTH PROMOTION

Key Question: do specific diet-related health promotion activities and interventions work and if so, when, how and why?

The Department of Health is the lead department initiating and coordinating health promotion activities and interventions. It carries out its activities in partnership with other government departments and with other statutory bodies such as the Food Standards Agency, the Health Development Agency and the National Health Service.

The NHS Plan,25 the NHS Cancer Plan26 and the National Service Framework for Coronary Heart Disease27 have set out policies with a strong focus on disease prevention and tackling health inequalities. The Government’s stated priority is to reduce early deaths from cancer and coronary heart disease. Recognising that health is influenced by social, environmental and economic factors such as poverty, unemployment, education and housing, the NHS will work with other partners to prevent ill health. But the government’s strategy also concentrates on tackling the major risk factors for these chronic diseases, including nutrition. The NHS Plan highlights diet and nutrition as a key area for action.

In Scotland, the Scottish Executive recently published Our National Health: a plan for action, a plan for change.28 Diet related commitments include:

- Making healthy food available to children through the provision of fresh fruit in nursery schools and salad bars and healthy eating tuck shops in schools
- Appointing a National Diet Action Co-ordinator early in 2001 to give a new drive to putting the Diet Action Plan into practice. The Action Co-ordinator will work with primary producers, manufacturers, retailers and caterers and others to drive forward action across Scotland.

The Executive has also committed to investing in the Scottish Community Diet Project to allow it to help at least 50% more projects from 2001-2. The SCDP is based upon the recommendations of the Scottish Diet Action Plan29 published by the then Scottish Office in 1996. This set out a framework for healthy eating for Scotland, based upon efforts to work both with the consumers and the manufacturers/suppliers of food.

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24 The dietary and nutritional survey of British Adults, Office of Population Censuses and Surveys, HMSO, London 1990
28 Our National Health: a plan for action, a plan for change, Scottish Executive Health Department, December 2000
The health promotion initiatives summarised below aim to help deliver some of the objectives set out in the national health strategies outlined above. Many of them are still in their early stages of development and their effectiveness has therefore not yet been evaluated. However we point towards evaluations, where they exist, of pilot programmes. Failing this, we note the evaluated studies upon which these programmes are based, as well as identifying gaps where further research is needed.

We look first at health intervention programmes for the general population, before moving on to examine vulnerable subsections of the population, including children and breastfeeding women.

3.1.a Policy impacts: General population

Issues: Key issues here include the need for improvements to the average UK diet (see part two, above), particularly to increase the intake of fresh fruit and vegetables. (Barriers to accessing affordable fruit and vegetables among low-income groups will be dealt with in Part 3.5). People falsely believe that they are already eating enough fruit and vegetables. They also have little real awareness of how their diet compares with government nutritional standards and they often underestimate the amount of fat they consume.

i. Five a Day Programme

Question: what impact do policies and programmes to promote fruit and vegetable consumption in particular and healthier eating in general have upon people’s eating patterns?

The government is developing a five-a-day programme for England which aims to increase fruit and vegetable consumption among the population as a whole, but particularly in low-income areas where fruit and vegetables may not always be accessible, affordable or available (see social exclusion 3.5, below). The DH aims to work in partnership with other government departments and agencies as well as consumer, health, education and parent organisations to increase provision of and access to fruit and vegetables. The five a day project includes a community-based approach.

Before the project is rolled out across the UK, the effectiveness of the approach is being tested in five pilot studies. The pilot areas are Airedale and Craven, County Durham, Hastings, Sandwell and Somerset. Collectively, these areas have a catchment population of one million people.

The pilots started in Sept 2000 and will finish in August 2001. Local and national evaluations of the pilots are being carried out, including dietary surveys to determine changes in consumption and attitudes. Lessons learnt from the pilots will be used to guide the implementation of the full scheme in early 2002.

The individual pilots are carrying out the following activities

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30 Institute of Food Research, Communication strategies for the effective promotion of dietary change, MAFF R&D surveillance report: 224, ANO910, 1997
• **Airedale and Craven** is setting up a network to devise projects to encourage people to increase their intake of fruit and vegetables. It is also mapping food outlets in the area; from this they will work with schools, primary health care teams and retailers to promote fruit and vegetables. They have also been conducting focus group sessions identifying barriers to eating more fruit and vegetables, opportunities for increasing uptake and so forth. No evaluation is available but the project managers are currently discussing the evaluation process.

• **Durham**: is working with food retailers and farmers’ markets to promote fruit and vegetables and working with workplaces and leisure services on availability and price incentives in canteens.

• **Hastings**: is setting up two food co-ops and training primary care staff, food experts and cookery class teachers in the five-a-day message, promoting fruit and vegetables to small and large retailers and setting up breakfast clubs and fruit-only tuck shops in schools.

• **Sandwell**: is targeting children through sports related activity – promoting fruit and vegetable intake through a football coaching scheme and preparing a food map of northern Sandwell, showing the price and availability of over 70 foods in 300 shops. It will aim to provide a community food service to 1000 residents, with free home delivery of groceries.

• **Somerset**: is focusing on different age groups, including pre-school and school children, working adults and older people. They are organising a children’s parliament/youth forum with a focus on nutrition and working with food producers, retailers, and local village shops. They are also setting up a community grant scheme for sustainable fruit and vegetable projects throughout the area.

**EVALUATION:** The five-a-day programme is based on good evidence that increasing fruit and vegetable consumption is beneficial to health, and the pilot interventions were developed with this in mind. It also draws on the experience of several countries that have been successful in increasing fruit and vegetable consumption, using an approach that focuses on availability and access as well as on attitudes and knowledge. The question is, to what extent is this community-based approach able to achieve this, in the UK context?

No evaluation exists as yet. Much of the rationale for this community oriented approach to health promotion is based upon the experiences of food co-ops which have been operating in deprived communities for a number of years and whose importance a number of academics31 and organisations have highlighted.32 The social exclusion section below examines some of their experiences in more detail. It is also worth mentioning that one review of healthy eating interventions targeting the general population in workplaces, the community and so forth concluded that these interventions were worthwhile and effective (even though the changes people made were small),33 particularly those which made personal contact with individuals or small groups.

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32 *Making Links: a toolkit for local food projects*, Sustain 1999
33 *Health promotion interventions to promote healthy eating in the general population*, Health promotion effectiveness review: summary bulletin 06, HEA 1997
3.1.b Policy impacts: Children

Issues:
Obesity among children is increasing rapidly. Studies suggest that one in ten six year olds is now obese, and that this represents a doubling in the last 10 years. Results of the National Diet and Nutrition Survey show that among four to six year olds:
- One in ten eat no fruit
- A third eat no apples or pears
- Half drink no fruit juice
- Only three in ten eat tomatoes
- About half eat no peas
- Three in five eat no leafy green vegetables
- Children in low-income groups are 50% less likely to eat fruit and vegetables than their more affluent counterparts.

Average consumption of fruit and vegetables among children in the UK is substantially lower than in other countries, such as Denmark, the Netherlands and the US.

Eating habits are formed in childhood. Interventions with young people have the potential to break unhealthy habits and form healthy ones for years to come. Children’s eating habits can affect the whole family, so if their fruit and vegetable consumption does increase, so might the entire family’s.

The last few years have seen the development and the coming together of a number of initiatives which taken together will, it is hoped, have a positive impact on children’s diets. These include:
- National School Fruit Scheme
- The Healthy Schools Programme and associated initiatives
- Minimum nutritional standards in school meals (as from April 2001)
- Delegation of the food budget to secondary and increasingly to primary schools.

The following paragraphs examine these initiatives in more detail.

i. National School Fruit Scheme

Question: By making fruit available in schools to schoolchildren a. will the children eat it and b. will it have an impact upon their dietary health?

From 2004 all school children in England and Wales aged between four and six will be entitled to a free piece of fruit each school day. The scheme is currently being piloted in

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three areas (covering 33 schools). Started in autumn 2000 the pilots will be extended in the spring of 2001 to over 20 areas, covering hundreds of schools within Health Action Zones. The process will be evaluated to identify the most effective way of implementing the scheme with the minimum disruption and burden to schools.

The following areas will be examined during the pilot process:

- From farm to school gate – getting the fruit to schools
- School gate to child’s hand – distributing fruit in schools
- Hand to mouth – encouraging children to eat the fruit

The National School Fruit Scheme complements the National Healthy School Standard (see below) and a number of school-related initiatives which form part of that Standard.

EVALUATION: An initial evaluation\(^\text{39}\) of the first three pilot areas suggest that

- The great majority of children enjoyed eating the fruit and looked forward to it
- The fruit was considered an important supplement to children’s diets
- The scheme helped overcome some children’s reluctance to eat fruit
- There was evidence that parents were very positive about the scheme
- Teachers felt that the scheme was improving the atmosphere of their classes.

Related work in the voluntary sector

Complementing national policy, it should also be mentioned that the organisation Sustain is running a complementary project, *Grab Five*, which works with schools to encourage children between the ages of 7-11 to eat more fruit and vegetables. Funded by the National Lotteries Charities Board, *Grab Five* is working with schools in three HAZ areas: Plymouth, Leeds and Lambeth, London. While children are the immediate focus of the scheme, it is hoped that by reaching children they will also be able to promote the five a day message to their families and the wider community.

All schools in the pilot areas will be contacted and a project pack will be made available to them. In addition, Sustain will be working more closely with a small number of schools in each area, working with them to develop their own work plans and encouraging them to involve pupils, caterers, teachers, other school staff and parents through the setting up of school nutrition action groups. The aim is to integrate the *Grab Five* project with their general approach to food in the curriculum, cafeteria and social life of the school.

Training days and workshops will be organised for participating schools. There will also be advice and support, both practical and financial, from the Sustain team and local steering group. A newsletter will keep participating schools in touch with each other and provide information on events and developments elsewhere.

The initiative is still in its early stages and has not yet been evaluated. However, a contract is currently being drawn up for tender. Sustain is clear that the evaluation will not attempt to ‘prove’ whether or not particular activities have been effective in isolation from other elements of the project. Schools will be evaluated on a case study basis and

controls will not be used. The evaluation team will collect feedback from all groups involved in the project (teachers, pupils, parents, and school staff). Qualitative data will be supported by analysis of changes in children’s fruit and vegetable consumption and food attitudes.

ii. Healthy Schools Programme

Question: do healthy schools type approaches a. increase awareness of (among other things) healthy eating and b. help to change eating behaviour?

The Healthy Schools Programme has been running since 1998. Participating schools work towards making themselves healthier places, in which staff and pupils can work and learn. The Programme has a number of elements, including the Healthy Schools Standard, which provides goals towards which participating schools can work, as well as specific schemes such as Cooking for Kids (see below). Schools involved in the programme can choose to work on a range of health issues, including drug use, healthy eating, physical activity, psychological/mental health and so forth.

In June 1998 eight pilot sites for the healthy schools programme were announced. Each pilot site received £150,000 to develop local education and health partnerships with a view to setting up or refining healthy school initiatives. Some partnerships were in the early stages of development while others were already well advanced and had been running initiatives for some time. The intention was to support developments that reflected local priorities and build on examples of best practice, as well as existing local programmes.

EVALUATION: The healthy schools pilot projects have been evaluated externally by the Thomas Coram Research Unit, Institute of Education, University of London, using a case study approach. The evaluation process involved interviews with key workers in the pilot sites, education and health professionals, school staff and governors, young people, parents and those providing support services to schools.

The researchers made a number of recommendations and observations; on the whole, it was felt that the health promoting school approach was positive and worthwhile. They also found, however, that healthy eating was one of the three issues that programmes had problems in addressing effectively, manifest as difficulty in developing links with the school catering service. This is not surprising, as there is tension between pursuing commercial interests and promoting nutritional health, especially when the available budget is constrained. This can lead to unwillingness to make changes to promote healthier choices. Hitherto, it is external catering contractors who have had to manage this trade-off, but the responsibility is now being shifted to head teachers. In addition, many schools rely on the extra financial income from tuck shops and vending machines.

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In contrast, however, a European research project\textsuperscript{41} into health promoting schools (and school based health promotion activities in general) came to a slightly different conclusion.

Like the Thomas Coram research, this study found that although the available evidence was limited, the health promotion approaches adopted were promising, qualifying this conclusion by warning that while such activities can improve awareness of the issues their impact on subsequent behaviour is less clear. However, as regards healthy eating in particular, the report concluded – unlike the Thomas Coram research - that promoting healthier eating habits and healthier school lunches actually ranked as one of the more successful interventions. They also felt that continued investment and ongoing evaluation are necessary to provide evidence about the effectiveness of this approach.

\textit{iii. Cooking for Kids}

Question: do cookery clubs a. promote awareness of healthy eating b. help influence children’s eating behaviour?

\textit{Cooking for Kids} is one strand of the Healthy Schools Programme. This scheme runs during school holidays to give young people experience of food preparation and to highlight the importance of food safety and healthy eating. Cooking classes tend to take place in secondary schools but to involve children both from primary and from secondary schools.

The scheme has been running for about three years and involved around 2000 schools.

EVALUATION: There has been no formal evaluation so far. However an audit (not an evaluation as such) will shortly be embarked upon which measures how many schools are involved, the range of subjects covered, and gives examples of good practice. This audit will be published in April 2002.

Despite the lack of formal evaluation, the project coordinator\textsuperscript{42} pointed out that a regular core group of schools continue to be involved, suggesting that the scheme is of benefit to them. She also mentioned a broader range of non-dietary benefits to participating schools, including the opportunity for primary and secondary schools to develop closer links with one another, and for pupils nearing the end of their time at primary school to familiarise themselves with a secondary school environment.

Parallel but of relevance to this scheme, the DH has funded research into the effectiveness of another school-based dietary intervention programme, the Food Club.\textsuperscript{43} This scheme teaches school children from deprived social backgrounds practical food preparation skills. Objectives are, among other things, to measure the impact of the intervention on the intake of fruits, vegetables, starchy foods, fats, and other foods by children aged 11-13 years as well as to assess the beliefs and attitudes of the children and their parents as a result of the evaluation.

\textsuperscript{41} Lister-Sharp D, Chapman S, Stewart-Brown S, Sowden A, \textit{Health promoting schools and health promotion in schools: two systematic reviews}, Health Technology Assessment vol.3 no.22, HTA NHS R&D Programme, 1999

\textsuperscript{42} Anna Waldon, education consultant, personal communication, March 2001

\textsuperscript{43} Dr Paula Moynihan and Annie Anderson, in progress
iv. Breakfast clubs

Question: do breakfast clubs improve children’s nutritional health?

It is a well known cliché that breakfast ‘is the most important meal of the day.’ Research appears to bear this out. Lower dietary fat levels have been found in regular breakfast eaters when compared to non-eaters of breakfast and breakfast eaters are also more likely to achieve current recommendations for water soluble vitamins. Breakfast skippers by contrast are more likely to have significantly higher plasma cholesterol levels. Although the impact of breakfast on cognitive function is still uncertain, studies suggest that children who skip breakfast habitually or have a low nutritional status may benefit from eating breakfast regularly.44

Many schools have been developing breakfast clubs, which offer food to children before the start of the school day, as part of their efforts to promote a healthy schools ethos.

Breakfast clubs may have a number of goals:

• To provide breakfast for children who might otherwise start the day without having eaten
• To establish a positive relationship at the start of the school day, helping to reduce lateness or poor attendance and improving attitude, behaviour and motivation to learn
• To offer healthy eating choices, providing the opportunity for children to sample and hopefully develop preferences for healthy options.

EVALUATION: The scheme is in the process of being evaluated by the University of East Anglia, commissioned by the Department of Health. The researchers are looking at 75 schools, all of which were funded through their regional NHS Executive. Although only an interim report has been produced so far,45 the initial conclusions appear positive. Some preliminary feelings from teachers are that the impact on children’s diets is good (less snacking) as well as on their concentration levels. It has also helped bring more parents into the school and get them talking to staff as well as improve relations between pupils and teachers.

There are also the findings of a research study46 into one particular breakfast club located in a low-income area of Dundee and serving primary and secondary school pupils. Originally the scheme offered a selection of less healthy breakfast foods (sweetened cereal, full fat milk, squash and so forth). However various healthier options were introduced (unsweetened cereal, fruit juice, semi skimmed milk, fruit) and sustained. It was found that children participating in the breakfast club had higher intakes of various nutrients, particularly NSP and Vitamin C.

45 Professor June Thoburn, Professor Ian Harvey et alia, ABC Project: a national evaluation of school breakfast clubs, Interim Report, University of East Anglia, May 2000
v. Minimum nutritional standards for school meals and budget delegation

Question: What evidence is there to support the idea that standards in the provision of school meals improve the nutritional status of schoolchildren?

As from 1 April 2001, all school meals will be required to meet minimum nutritional standards. This reverses a situation that has been in place for the last twenty years. The minimum standards are based on the first four of the five food groups as set out in the Food Standard Agency’s *Balance of Good Health* and are as follows:

- Fruit and vegetables (both fruit and vegetables must be served every day)
- Starchy foods
- Meat, fish and non-dairy sources of protein
- Milk and dairy foods
- Foods containing fat and foods containing sugar

In addition, all secondary schools and increasing numbers of primary schools will have control of the school meals budget, which makes them directly responsible for the quality of the meals provided.

EVALUATION: The last twenty years have seen an increase in childhood obesity together with trends towards eating foods that are higher in sugar and fat. At the same time we have also witnessed the deregulation and the contracting out of school meals provision. Whether there is a direct correlation or not is unclear. However, there is evidence from the United States to suggest that the results of introducing nutritional guidelines for school meals can be positive.

An evaluation of the programme which compared the nutritional intake of school lunch participants compared with those of non participants found that on the whole, the intake of minerals, vitamins, and fruit and vegetables was higher and sugar consumption was lower among participants than among non-participants. However, the research also found that total fat and energy content was also higher amongst those eating school meals.  

3.1.c Policy impacts: Pregnancy, breastfeeding and infant nutrition

Issues

Human breast milk provides complete nutrition for infants in the first critical months of life, and also protects against common childhood infections and diseases throughout childhood and into adulthood. Babies who are not fully breastfed for the first 3-4 months of age have been shown to suffer health problems such as gastroenteritis, respiratory infection, otitis media, urinary tract infection, atopic disease if a family history of atopy is present, and juvenile onset insulin-dependent diabetes mellitus. 

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47 *Children’s Diets in the Mid-1990s: Dietary Intake and Its Relationship with School Meal Participation*, USDA, January 2001

48 *A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding*, L Fairbank, S. O’Meara, M J Renfrew, M Woolridge, A J Sowden and D Lister-Sharp, NHS R&D Health Technology Assessment Programme, December 2000
In addition, breastfeeding is beneficial to the mother’s health. Women who do not breastfeed are significantly more likely to develop epithelial ovarian cancer and premenopausal cancer compared with women who do breastfeed.

The Department of Health has calculated that the NHS could save £10 for every extra mother who breastfed owing to the reduction in diabetes mellitus, and £35 million each year in treating babies with gastroenteritis.\(^49\)

Only 66% of babies are breastfed at all and duration of breastfeeding is low with only 21% of infants being breastfed at 4 months of age in the UK.\(^50\) In addition, the majority of babies are introduced to solids at three months of age. There is concern that some children in this age group may have inadequate iron intakes and that most infants consume more non-milk extrinsic sugars than recommended.

There is a strong correlation between uptake of breastfeeding by mothers and their educational levels and social class.\(^51\) 50% of mothers in social class V breastfed their baby initially, compared with over 90% in social class I. 82% of mothers in social class I who breastfed initially were still doing so at six weeks compared with 46% of mothers in social class V.

There are several DH initiatives that focus upon improving the health status particularly of vulnerable mothers, pregnant women and infants. These include Sure Start, and the Infant Feeding Initiative. In addition, Government is reviewing the existing provision for low-income mothers and pregnant women under the Welfare Food Scheme.

1. Infant feeding initiative

Question: What effect do efforts to promote breastfeeding have upon the feeding choices of mothers with infants?

The Infant Feeding Initiative was launched as part of the Government’s commitment to improve health inequalities during National Breastfeeding Awareness week 1999. A total budget of £900,000 has been allocated to the project.

This three-year project has funded 31 projects in its first year and 24 in its second year. An evaluation report of the first two years of the project’s life is due out at the beginning of May 2001.

EVALUATION: At the time of writing the evaluation of the infant feeding initiative is not available. However there is some research from elsewhere to suggest that interventions to promote breastfeeding can be effective. One literature review of twenty-six studies found\(^52\) (notwithstanding problems with the design of the evaluation), that there were successes in promoting long-term breastfeeding, particularly in the US. These interventions in general were long term, spanning both pre- and post-natal periods, and

\(^{49}\) A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding, L Fairbank, S. O’Meara, M J Renfrew, M Woolridge, A J Sowden and D Lister-Sharp, NHS R&D Health Technology Assessment Programme, December 2000

\(^{50}\) Effectiveness of interventions to promote healthy feeding in infants under one year of age: a review, Health promotion effectiveness review, summary bulletin 03, HEA 1998

\(^{51}\) Breastfeeding in the United Kingdom in 1995, Office for National Statistics, 1995

\(^{52}\) Effectiveness of interventions to promote healthy feeding in infants under one year of age: a review, Health promotion effectiveness review, summary bulletin 03, HEA 1998
intensive, involving multiple contacts with a professional breastfeeding promoter or peer counsellor. Weaker evidence from single studies suggests that including partners, incentives or changing the contents of the commercial hospital discharge packs may facilitate breastfeeding.

Another more recent review\textsuperscript{53} evaluated existing evidence to identify which promotion programmes are effective at increasing the number of women who start to breastfeed. The review aimed to assess the impact of such programmes on the duration and/or exclusivity of breastfeeding and the intermediate and process outcomes. Where the strength and quality of the evidence permitted, the review aimed to identify implications for practice within the UK and priority areas for future research.

The study concluded that three types of intervention have been shown to be useful in the promotion of breastfeeding when delivered as a stand-alone intervention. Informal, small group health education, delivered during the antenatal period, appears to be effective at increasing initiation rates among women from different income groups and from some minority ethnic groups. There is also some evidence to show that one-to-one health education can be effective at increasing initiation rates among women on low incomes. Peer support programmes, delivered in the ante- and postnatal periods, have also been shown to be effective at increasing both initiation rates and duration of breastfeeding among women on low incomes and particularly among women who have expressed a wish to breastfeed.

Packages of interventions have also been shown to be effective at increasing the initiation and, in most cases, the duration of breastfeeding. Effective packages appear to include a peer support programme and/or a media campaign combined with structural changes to the health sector and/or health education changes.

Another study looked at the Glasgow Infant Feeding Action Research Project that worked in two deprived areas of Glasgow (Easterhouse and Drumchapel) with the lowest levels of breastfeeding. Easterhouse was offered seven trained peer counsellors resident in the community with recent experience of breastfeeding. Compared to control group mothers who stated an intention to breastfeed at booking, those in the intervention group were significantly more likely to initiate breastfeeding, to be breastfeeding at hospital discharge and to be breastfeeding at all or exclusively at six weeks.\textsuperscript{54}

As part of the Infant Feeding Initiative, the Department of Health funds the Best Start research programme. This initiative is based on the findings that most women who give up breastfeeding in the early postnatal period do so because of problems they are having, not because they have breastfed for as long as they intended. The most recent national figures highlighted that only 1% of new mothers who gave up breastfeeding in the first few weeks did so because they had breastfed for as long as they intended. Evidence shows that first time mothers given practical information on how to breastfeed from a skilled midwife will breastfeed for longer. The aim of Best Start, therefore, is to

\textsuperscript{53} L Fairbank, S. O’Meara, M J Renfrew, M Woolridge, A J Sowden and D Lister-Sharp, A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding, NHS R&D Health Technology Assessment Programme, December 2000

\textsuperscript{54} McInnes R, An evaluation of a community based intervention designed to increase the prevalence of breastfeeding in a socially disadvantaged urban area, PEACH Paper No.7, University of Glasgow, Glasgow, 1998
test the impact of breastfeeding support and promotion upon duration of breastfeeding. Randomised Control Trials will be carried out in three parts of the country. The project has only recently started but it will be evaluated and the results disseminated in due course. Department of Health funded research is currently underway at Liverpool University,\textsuperscript{55} which looks at the reasons why low-income women choose to feed their babies the way they do.

The Department of Health also runs National Breastfeeding Awareness Week. An evaluation of the campaign is due to take place this year.\textsuperscript{56}

\textbf{ii. Sure Start:}

\textit{Question: What impact does Sure Start have upon people’s eating habits?}

Sure Start is aimed at families with children up to and including the age of four. Sure Start does not offer one specific service but rather represents an effort to change and add value to existing services. This is to be achieved by reshaping, enhancing and adding value to existing services, as well as providing new ones and also by increasing and improving co-ordination between agencies. The desired outcome of this effort is the enhancement of child, family and community functioning.

The focus is not, of course, solely on nutrition but, among other things, Sure Start will fund £60 million worth of initiatives for pregnant mothers including information on nutrition, access to food coops and affordable healthy foods, as well as advice on breastfeeding.

EVALUATION: a full methodological report of the evaluation will be published at the end of April. In addition to the national level evaluation there will also be local evaluations. Nutrition and health may or may not form part of these local level evaluations – it depends on how much nutrition is an issue for the particular Sure Start area. The national evaluation will include:

- A national survey of all 260 local Sure Start programmes (using the Internet) which is repeated three times over the course of the evaluation.
- An in-depth study of 25 local Sure Start programmes
- A series of themed evaluations (e.g. partnerships with voluntary organisations, interface of education, health care services).

To assess the impact of Sure Start, the development and functioning of 18,000 infants, two year olds and four year olds and their families, from 150 Sure Start communities will be compared with 2,750 similar children and their families from 50 communities selected to become Sure Start communities before Sure Start programmes are implemented.

In a second phase of investigation, 8,000 of the infants from 100 of the original studies in the 150 Sure Start communities will be followed up longitudinally, along with their families, when these children are 2 and 4 years of age (and beyond in the next phase of the evaluation). The development of these children and families will again be compared with that of similar children and families who reside in non-Sure Start communities, using

\textsuperscript{55} \textit{Looking At Infant Feeding Today}, Mike Woolridge and Lisa Fairbanks, Liverpool University, forthcoming

\textsuperscript{56} Robert Finch, Department of Health, personal communication, March 2001
date from the Millennium Cohort Study and other sources. Comparisons of communities will also be made on health, education, employment and crime.

Both the first and second phase of investigation will focus upon children’s physical health, behavioural development and intellectual and academic functioning, as well as parents’ economic circumstances, mental health, parenting practices, parents’ perceptions of their communities and experiences of health, education and other community services available to themselves and their children. All these topics and others, both in the first and second phases of the impact evaluation, will be studied during the course of home visits to families and follow-up telephone calls.

Of relevance, perhaps, to the development of the Sure Start programme, is a Health Education Authority funded review that found limited evidence to support interventions to promote healthy eating in preschool children. This research, which focused on children aged 1-5 years of age, found that many of the interventions increased children’s awareness of nutrition. However the impact of interventions on eating behaviour was less frequently assessed and when it was, the outcomes were variable. Furthermore, none of the studies reviewed provided information on the long-term impact of interventions on nutrition knowledge and behaviour. As far as the mothers themselves are concerned, another study commissioned by the Health Education Authority found some evidence that health promotion interventions aimed at promoting healthy eating to pregnant women and those of childbearing age were effective, although there were methodological problems that complicated the picture.

iii. Welfare foods Scheme

Question: What impact has the Welfare Foods Scheme had upon the diets of women and their young children?

Under the Welfare Foods scheme, pregnant women or women with children under five receiving income support are entitled to free milk, or formula, as well as free vitamins. The scheme has been running since 1940 and today a quarter of children under five are beneficiaries by virtue of their family’s income. Recipients can exchange the token at a local authorised supplier for seven pints of fresh milk or at a local clinic or pharmacist for a tin of infant formula milk. The token is then returned by the authorised supplier to WFU for reimbursement.

The scheme has recently undergone a scientific review and this is now with Ministers who are considering options for the scheme’s future. There have been various criticisms of the scheme, most notably from the Maternity Alliance. These tend to focus on the fact that the value of the formula milk exceeds that of the cow’s milk and that this may mean that scheme has acted as a disincentive to breastfeeding. In addition, the Maternity Alliance believes that ways should be explored to extend the scheme to include the provision of fruit and vegetables, and that the provision of free vitamins both

57 Effectiveness of interventions to promote healthy eating in preschool children aged 1 to 5 years: a review, Health promotion effectiveness review: summary bulletin 10, HEA 1998
56 Effectiveness of interventions to promote healthy eating in pregnant women and women of childbearing age: a review, Health promotion effectiveness review: summary bulletin 11, HEA 1998
to infants and women (for women the formula should be adjusted to, among other things, include folic acid) should be vigorously promoted.

EVALUATION: the scientific review is not able to determine with any accuracy the impact of the scheme upon recipients’ health and wellbeing as the evaluation is constrained by the lack of an identified group of similar socio-economic status not in receipt of welfare foods as a basis for comparison.

However the review does come to a range of conclusions. These include:

• The scheme has great potential for improving the health of nutritionally vulnerable pregnant women, mothers and young children
• Currently there is no incentive for mothers to breastfeed as the retail value of the formula allocation exceeds that of liquid milk they receive
• Vitamin supplement uptake is very low – non-beneficiaries are more likely to take supplements than beneficiaries
• The volume of formula provided for children over six months exceeds requirements and could be reduced in favour of provisions which would encourage timely complementary feeding. Extension of formula provision into the second year of life would probably reduce the prevalence of iron deficiency
• Provision of milk for children attending day care facilities should take account of milk entitlement at home in order to reduce the risk of excessive intake at the expense of a more varied diet

The review also concludes that while the scheme does not offer an incentive to breastfeed, it would be harmful to remove entitlement to formula milk altogether. This would be likely to lead to women feeding their infants cow’s milk instead, with consequences damaging for health. The review does however suggest that a package of support resources for mothers who choose to breastfeed may be beneficial.

It also recommends the following amendments (among others):

• Choices other than milk should be offered to address dietary inequalities more effectively
• The composition of vitamin supplements should be reviewed. A supplement providing vitamins D, C and folic acid but omitting A would be preferable
• An incentive to breastfeeding should be considered, replacing the allowance of cow’s milk

A change towards broadening the foods provided under the scheme might move the WFS more closely in the direction of the US Women, Infants and Children (WIC) programme, which provides food vouchers for very poor pregnant women (redeemable at, amongst other places, Farmers’ Markets). This scheme has had significant success in improving birth outcomes. One evaluation showed low birth weight was reduced by 22% among White participants and by 31% among Black participants. For every dollar spent on WIC, nearly $3 was saved in healthcare expenditure due to the reduction in disability and illness as birth weights increased.60

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60 Buescher PA et al, Prenatal WIC participation can reduce low birth weight and newborn medical costs: a cost benefit analysis of WIC participation in North Carolina, J Am Diet Assoc. 93:163-166
In the UK one scheme has already been running which offers WFS recipients fresh fruit and vegetables in addition to their entitlement of milk.\textsuperscript{61} The Govan Milk Token initiative has several aims:

- To encourage parents to acquire milk with the token
- To ensure that the maximum nutritional benefit was received from the token
- To substantially increase the amount of fresh fruit that pre-school children in Govan consumed by improving access and affordability to fresh fruit for pre-five children on a milk token
- To assist in establishing community-led dietary improvement programmes that are feasible in operation and affordable to persons living within deprived areas
- To show that profits made from these tokens can be earned directly by the community groups and families involved, adding to the milk token’s value and releasing the ‘hidden’ income
- To increase parent participation in self-help initiatives tackling the effects of poverty.

The milk token initiative runs under the umbrella of the Govan Healthy Eating Programme, an existing initiative. The GHEP registered as an authorised supplier with WFU, permitting them to exchange tokens for fresh milk (not formula). They negotiated a price/pint with the Welfare Foods Unit, purchased milk from a competitive supplier and redirected a maximised trader’s profit to the recipients in the way of a food dividend – which in this case was fresh fruit and vegetables. Participants received just over 7.5 pints of milk and fruit and vegetables worth on average £1.44 wholesale or £2.50 retail price a week. The milk was distributed through the newly set up Govan Milk and Fruit Co-operative, with five satellite food co-ops in five of Govan’s pre-school units. Parents were approached and trained.

An evaluation of the initiative was conducted to ascertain whether it maximised the nutritional benefit derived from milk tokens by encouraging parents to acquire milk with the token and by increasing the amount of fresh fruit pre-school children eat.

Results of the survey and focus group evaluations were positive. Respondents felt that the initiative was of value and should be extended. They generally agreed that, as well as helping to ensure the correct quantity of milk was received with their token, it also allowed them to provide fruit for their children and experiment with new fruit and vegetables at no extra cost. Suggestions for improvement included increasing the range of the food dividend, and distribution and advertising to raise awareness of the initiative. In the light of these findings the Govan Milk Token Initiative has been extended to other areas of Glasgow with the advice and support of GHEP.

\textit{iv. Folic acid}

Question: to what extent has the campaign to promote folic acid intake been successful among women who are, or who are likely to become, pregnant?

In 1995-8 the Health Education Authority ran the first national integrated campaign aimed at increasing the average daily intake of folate and folic acid by at least 400µg in

women who may become pregnant. The campaign had several objectives which included increasing the awareness of the importance of taking additional folic acid before and until the twelfth week of pregnancy in the general female population. Research conducted throughout the campaign indicated that spontaneous awareness of folic acid increased from 9% in 1995 to 39% in 1997. Impacts on subsequent uptake are less clear.

The forthcoming COMA report, *Folic Acid and the prevention of disease*, will consider ‘mechanisms including the fortification of foods for the maintenance of adequate nutritional status and the evaluation of their safety and effectiveness.’

### 3.1.d Other interventions

**Issues:** Other initiatives outside England and/or the UK may have lessons from which the UK can learn. The following paragraphs give a brief flavour of the activities that have been undertaken elsewhere.

**i. Heartbeat Wales**

**Question:** Were attempts to improve the dietary intake of the Welsh population effective? Heartbeat Wales was a health promotion programme that ran from 1985-1990 in Wales and covered a range of health promotion issues, from smoking to physical activity to nutrition. Promotional activities took place in a range of community and workplace settings, with a variety of different population groups (e.g. children, youth) as well as with retailers and the food industry.

**EVALUATION:** Evaluation of the programme indicates that its effects were positive leading to a reduction in reported smoking prevalence and improvements in dietary choice. However, there have been criticisms of the evaluation process. The assumption made in the study design was that the contrast between the intervention in Wales and existing activity in the reference area would be large enough and sustained over a 5 year period to show a clear net intervention effect. This was not the case for two reasons. Firstly, the sample size at the baseline measurement in the reference area was too small for findings to be statistically significant. Secondly, a previous paper by the authors showed that the influence of Heartbeat Wales projects and programmes spread out to the reference area far faster and to a far greater extent than had initially been expected - along with the introduction of additional resources for heart health promotion through the development of England’s Look After Your Heart project (1987) and Heartbeat Yorkshire (1988), which was conducted in the reference area. In other words, the reference area was ‘contaminated’ by the influence of these initiatives as well as increases in funding for heart health promotion initiatives.

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**ii. The Scandinavian example**

**Question:** Were Government efforts to improve the diets of the population in the Scandinavian countries effective and if so what lessons can be learnt?

The poor diet of the general population in Scandinavian countries was a cause for concern among the Finnish, Norwegian and Swedish governments. These governments have taken a proactive role in seeking to promote healthier ways of eating. Norway, for example, was the first industrialised country to adopt a nutrition policy in 1975/6. It now has a National Council on Nutrition and Physical Activity – a professional and administrative body under the Ministry of Health and Social Affairs - which is responsible for matters regarding nutrition, physical activity and health. Its role is to provide strategy and advice and to evaluate interventions by public authorities, research organisations, schools, workplaces and so forth as well as to collaborate on international issues. Finland also has a National Nutrition Council. In Sweden the National Food Administration and the National Public Health Institute are the main governmental agencies responsible for nutrition policy issues and implementation.

**EVALUATION:** Roos G, Lean M and Anderson A carried out a study for the Scottish Office with the aim of:

- Making a comparative review of trends in food and nutrient consumptions in Finland, Norway and Sweden over the period 1970-1995
- Establishing which dietary interventions were effective and which were ineffective in contributing to dietary change and how the projects were initiated and sustained
- Evaluating the applicability of successful Scandinavian initiatives to Scotland 1995-2005

As far as a comparison between health outcomes is concerned, the authors point out that over the years 1970-1995, public health has improved both in Scandinavia and Scotland, with an increase in life expectancy and a decrease in mortality of many diet-related diseases, but CHD is still the leading cause of death.

The health status of the population in Sweden and Norway is better than in Finland and Scotland. This said, the improvements made in Finland have been the most striking - Finland was starting from a particularly low (i.e. unhealthy) base and it has managed to achieve a particularly dramatic decline in CHD mortality since the 1970s whereas this decline has been much less in Scotland.

Where once the diets of the population of Scandinavia were similar to Scotland, recent years have seen improvements in the diets of the former. Consumption of fruit and vegetables, low fat milk, low fat spreads and cheese has increased and consumption of butter, whole milk and potatoes has decreased. On average people in Scandinavia now consume around 400g of fruit, vegetables and berries a day, compared with 180g/person/day in Scotland. The fat content of Scandinavian diets is between 32%-36% energy intake whereas in Scotland the figure is 38%-39%. Obesity is still a

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problem, with Finland and Scotland seeing higher rates of overweight and obesity than Norway and Sweden.

The authors conclude that assessing the impact of specific dietary intervention initiatives is difficult in part because of the lack of systematic evaluation and various factors being involved. They also point out that agricultural policy in Scandinavia has not reflected nutrition and health considerations. Nevertheless the important roles of food industry and retail have been recognised and these sectors have been target groups in recent nutrition campaigns. Industry has responded to consumer interest in healthy foods and guidelines for labelling and marketing foods by developing more low fat and low salt foods. Community based programmes such as the North Karelia project may have been instrumental in promoting change at a national level. The role of maternal and child health services and guidelines for mass catering in pre-schools and schools needs to be recognised. Mass catering has played a very important role in changing food habits in Finland and Sweden and guidelines have been published for different types of mass catering. Nutrition education and training for personnel in food service, health care services, education etc. deserves to be mentioned as an important factor. Nutrition education for the general public has been a central component of Scandinavian nutrition policy implementation. Initiatives that have focused on some easily understood issues are more successful and the importance of evaluation has been recognised.

Other research into the impacts of diet changes in Scandinavia include the work of Pietinen P, Vartiainen E, Seoppanen R, Aro A and Puska P,66 and various other authors.67 68 69 70

3.2 EDUCATION AND TRAINING

**KEY QUESTION:** To what extent have government policies influenced people’s ability and need to cook and what implications does this have for the nation’s diet?

**Issues:** The growth in convenience foods and the dominance of the take away culture has reduced the importance of the home cooked meal. There is also evidence to suggest that the younger generation is growing up lacking basic cooking skills. This section explores the link between cooking and health and the role that government policies play in influencing people’s cooking abilities.

70 Puska P 1995 Health promotion challenges for countries of the former Soviet Union: results from collaboration between Estonia, Russian Karelia and Finland. Health Promotion International vol 10, no. 3 pp 219-228
3.2.a Cooking and the school curriculum

Question: What impact does the school curriculum have upon children’s eating awareness and habits? What initiatives are underway to improve children’s cooking skills and what impact have they had?

One survey of young people aged 7-15 found that while 93% knew how to play computer games and 61% could programme a video machine, only 38% could cook a jacket potato in the oven.\(^{71}\) The focus on literacy and numeracy (back to basics) has led to a reduction in the time available for ‘skills for life’ type learning. Home economics is now one module in the Design and Technology syllabus and secondary schools are not obliged to teach it (although in practice 90% do). At the primary level there is an obligation to teach food education but the quality of the teaching depends partly on teachers’ skills and interests and partly on the availability of adequate equipment.

DATA, the Design and Technology Association, have identified a number of factors that hinder the teaching of practical cooking skills.\(^{72}\) A number of teachers are now advocating the fifty minute double lesson, which would replace two forty minute single lessons, but this reduces the time available for preparing and cooking a meal to an almost impractical degree. Lack of modern facilities is another problem. Finally it is the responsibility of the children to bring in the food they subsequently cook. In some cases this can lead to problems with children forgetting to bring food in, with variations in the quality of the ingredients or, more importantly, because those from disadvantaged backgrounds may have difficulty affording the ingredients.

Personal, Social and Health Education (PSHE) is another area where healthy eating can be taught as part of general health education. However, the PSHE guidelines are broad and there is no specific obligation to teach diet and nutrition. On the whole, PSHE tends to reflect teachers’ interests, which may or may not be lie with food.

A number of initiatives are underway to boost cooking skills in the classroom. In addition to the Cooking for Kids programme (see 3.1.iii), DATA has recently bid for funding, in partnership with the British Nutrition Foundation and Focus on Food, for a project which aims to increase the level of skills and interest in food education both at the primary and the secondary level. Two initial pilots are planned, one in the North and the other in the South of England, each involving ten secondary schools. Each of these twenty schools would in turn recruit ten primary ‘feeder’ schools. The intention is that these pilot schemes provide an opportunity for secondary teachers to work with primary school teachers and train them in food education as part of an ‘inset’ training course.

DATA also runs the National Food Awards scheme with backing from the DfEE. This focuses on developing practical food handling skill among 11-14 year olds. Teachers are invited to sign up to the scheme, and, in the last 6 months, over 600 have done so. The Awards scheme is based upon the fulfilment of a number of food related modules, with an emphasis on highly practical food preparation skills. Children are expected to demonstrate skill and thought in the selection and preparation of a range of foods.

\(^{71}\) MORI, *Survey for Get Cooking!* National Food Alliance, London1993

\(^{72}\) Jenny Jupe, DATA, personal communication, March 2001
EVALUATION: With regard to the work of DATA and others to raise the level of cookery skills in schools, the projects are still in their very early stages and no evidence is available as yet.

As regards the more general question of the relationship between cookery classes and healthy eating, there is no hard evidence to ‘prove’ that the squeezing of cooking in the school curriculum has damaged children’s ability to purchase and prepare food and to understand the concept of balance and variety in a diet. However, in the view of some of the leading experts in the field, this is exactly what has happened. This could be an area that merits further research.

There is, on the other hand, some limited evidence to suggest that improving young people’s cooking skills can make a contribution to health promotion. A number of pilot intervention studies suggest that carefully designed cooking and food classes for young people can change not just their own diets but also those of their families.

However, evaluation reports also suggest that it is the programmes run over a period of months or years, rather than those lasting a few hours or days, that have effects on the eating and cooking habits of those taking part. This suggests that there is an urgent need to determine the effectiveness of short term classes, which are by far the most common form of cooking classes run outside the traditional classroom.

A highly innovative US study examined whether young people are more likely to be influenced if classes situate cooking skills in a wider social context. Demas set up a controlled intervention trial to test the effects of hands on, educational, sensory experience of low-fat foods on the diet chosen and eaten at lunchtime in the school as well as later at home. She found that allowing children to experiment and become confident with unfamiliar foods (including understanding where they come from and so forth), such as low fat products and more diverse ingredients (including whole grains), had a consistent and dramatic effect. The intervention group of children ate more of the new foods in the school lunch and parents reported a positive change in the dietary habits of the whole family. Demas also placed great significance on involving key players such as other teachers, canteen staff, volunteers and parents. Lang and Caraher also describe a number of other studies, including one based in the North of England and another in Northern Ireland, all of which suggested that participation in cooking skills classes led to greater awareness in healthy eating as well as changes in purchasing and preparation patterns.

Lang and Caraher conclude by stating that the ‘acquisition of cooking skills promotes not only the development of young people’s health but also their social and emotional development.’

3.2.b Cooking skills in the adult population

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73 Joe Harvey, Health Education Trust, personal communication, March 2001
74 Caraher M and Lang T, Can’t cook, won’t cook: A review of cooking skills and their relevance to health promotion, Int.J Health Prom & Educ. Vol 37, No.3, 1999
75 Demas A, Food Education in the Elementary Classroom as a means of gaining acceptance of diverse, low fat foods in the school lunch program, PhD thesis, Cornell University, USA, 1995
76 Caraher M and Lang T, Can’t cook, won’t cook: A review of cooking skills and their relevance to health promotion, Int.J Health Prom & Educ. Vol 37, No.3, 1999
Question: What evidence is there to support the idea that cookery skills training improves peoples’ awareness of healthy food and ultimately their eating behaviour and what action can government take to improve people’s skills?

A survey carried out for the then Health Education Authority revealed that most people do not feel that their food choices are restricted by their ability to cook and the vast majority of women (and many men) stated that they felt confident in their ability to cook a meal from scratch. However, the definition of cooking is not at all clear. A survey by the Co-operative Group found that more than half of those interviewed consider that preparing ready-made chicken nuggets and beans, or making pasta with a pre-prepared sauce counts as a home cooked meal, and the massive growth in convenience, ready made and take away foods suggests that fewer and fewer of us are actually using these skills. A survey by National Opinion Polls for Taste 2000 (1997) found that the British public spent less time in the kitchen than their European neighbours. Only 43.6% of the population cook a meal (whatever that means) every day, although the figure is predictably much higher for women.

A paper by Caraher and Lang assesses the contribution of cookery skills to a healthier diet. The authors note that public expression of interest in food and cooking has never been so high in the last hundred years (except perhaps during the Wars) as evidenced by the popularity of cooking shows on television (there were nearly thirty in a week in the UK at the start of 1997) and the sales of cooking magazines and books. However, market research suggests that cooking has moved away from being an everyday necessity to part of the leisure industry.

Caraher and Lang look at the argument put forward by some that cooking is fast becoming an unnecessary skill. As the take-away and eating-out markets continue to develop, there is less need to cook one’s own food. What is more, technological developments mean that the cost differential between eating at home and buying a take away will reduce substantially. There is already some evidence that for low-income families, when hidden costs such as electricity are accounted for, the cost savings of cooking at home compared to eating ready-prepared foods are not significant.

They also examine (and agree with) the alternative view that knowledge of how to prepare and cook food generates health-relevant skills. Far from being an out of date and irrelevant skill an argument can be made that the possession of cooking skills can be empowering in a world where the individual is faced with a bewildering array of ready

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77 Lang T, Caraher M, Dixon P and Carr-Hill R, *Cooking skills and health*, Health Education Authority 1999
78 *The Family Study*, Co-operative Group, November 1999
prepared foods. Cooking skills prepare people to make choices in a fast changing food world. Without these skills, choice and control are diminished and a dependency culture emerges.

Of course, cooking skills do not necessarily lead to healthier eating habits – people can choose to cook unhealthy foods or, conversely, choose to buy ready made healthier foods. Nevertheless, some have argued that the absence of cooking skills has led to the deskilling of society and the development of a culture of dependence on manufacturers and retailers.  

Furthermore, others have argued that the ability not just to cook but also to grow food is essential to an understanding of our human link to the wider environment and more specifically of the way our personal health and that of the environment is inextricably connected. Such an understanding is essential to the achievement of a ‘whole food policy’, which takes into account the range of policy connections outlined in this report. Again such a view is based more on anecdote than on hard evidence.

EVALUATION: A direct link between cooking skills and health cannot be drawn from any of the studies mentioned. Lang and Caraher also warn that the cooking skills debate needs to be seen within a wider socio-economic context and that ‘The relevance of cooking for health inequalities should not be overstated.’ Nevertheless they do conclude that poor cooking skills could be a barrier to widening food choice, if they reduce the chance of eating healthily. Skills, and particularly the confidence to use them, could be an important determinant of health behaviour. They argue for the development of a national policy to enhance cooking skills. Their recommendations include that local health promotion workers could include cooking skills in their frame of reference. They also feel that action is required by Ministries responsible for education, agriculture/food, culture and health and a strengthening of cookery in the school curriculum.

Although still in its very early stages, one government cooking project (funded initially by MAFF and now by the Food Standards Agency) is currently underway. Based in Scotland, CookWell examines how women’s cooking and eating habits change as a result of their involvement in cookery classes. Cooking classes are being set up in eight urban communities in Scotland, working mainly with women from low-income families. Each group will have a course of seven classes and during that time, participants will be asked to keep a record of the food they buy and eat through food diaries, shopping diaries etc. Participants who keep their records will be given a prize of cookery equipment. The project will be evaluated using control groups and a final report is due at the end of June 2002.

84 Caraher M and Lang T, Can’t cook, won’t cook: A review of cooking skills and their relevance to health promotion, Int.J Health Prom & Educ. Vol 37, No.3, 1999
85 Garnett T, CityHarvest, Sustain 1996
87 Wrieden W and Anderson A, Assisting dietary change in low-income communities: assessing the impact of a community-based practical food-skills intervention (CookWell), Centre for Public Health Nutrition Research, University of Dundee, March 2001
It should also be noted that the impact of cookery classes is not just about changing food patterns but also about increasing self esteem. Food and cooking skills can be used as a means to raise self-esteem within the confines of what is known as community development. One example is the work undertaken by the Strathclyde Anti-Poverty Alliance who have used cooking classes as a means to an end rather than an end in itself. Because people are interested in food and cooking they can be used as a banner to attract people. In an evaluation of cooking classes run under the banner of Get Cooking! in Wales the course facilitators identified the most important outcomes of classes were the raising of the self confidence of the participants and the general rise in the community’s feeling of empowerment.

3.2c Ready made meals, the food industry and the role of Government

Question: What impact has the proliferation of ready made meals had upon people’s need to cook and what role has government played in this growth?

The number of ready meals bought rose from 4.6 billion in 1986 to 6.1 billion in 1996. Supermarket shelves are laden with an enormous range of ready prepared foods, from salmon en croute to ready baked potatoes with cheese. What role has government policy played in furthering the development of this sector of the food industry?

EVALUATION: To our knowledge, little work has been undertaken to examine a link between the growth in the convenience foods market, the decline in cooking and government policy. One view that would merit investigation is that of the Food Commission, who argue that the proliferation of convenience foods would not have been possible without Government regulatory permission for industry to use food additives according to ‘need’ as industry defines it. It is also worth noting that the use of butter surpluses is actively encouraged by the Common Agricultural Policy and is introduced into the food chain by manufacturers who use it to make pastry, ice cream and so forth (see below). In this instance there does appear to be a perverse incentive to manufacturers to produce unhealthy foods.

The issue of food manufacturing and the role that Government can play in shaping the policy context so that manufacturers produce more healthy foods is, we believe, extremely important. More research could usefully be undertaken in this area, perhaps drawing upon the experiences of governments overseas as well as in the UK.

3.3 FOOD ADVERTISING AND LABELLING

Key questions:
1. Is there any evidence to show that a) advertising of certain foodstuffs affects the food choices we make and b) that our current exposure to food advertising has a negative impact upon our diets and subsequent health?

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88 Caraher M and Lang T, Can’t cook, won’t cook: A review of cooking skills and their relevance to health promotion, Int.J Health Prom & Educ. Vol 37, No.3, 1999
89 Catering Forecasts, Marketpower, 1996
90 Tim Lobstein, Food Commission, personal communication, March 2001
2. Is there any evidence to show that better labelling of the nutritional and other content of foods affects our purchasing decisions and if so, what implications does this have for our health?

3. Is there any evidence to show that by limiting children’s exposure to junk food advertising, there is a subsequent improvement in the quality of their diets?

**Issues:**

Food advertising in the UK is heavily skewed towards the promotion of processed foods high in fat and sugar. Sales of confectionery, soft drinks, cakes and biscuits have grown between 1985 and 1997\(^{91}\) and now leading brands in the food industry spend over £200 million each year on advertising these foods in the UK. In contrast, in 1997/8 the (then) Health Education Authority spent just £0.3 million on promoting healthy diets.\(^{92}\)

Advertising of sweet and fatty foods to children is particularly intense. Expenditure on children’s food advertising doubled in the five years 1991-1996.\(^{93}\) The largest single advertising category is confectionery, followed closely by sweetened breakfast cereals.

In addition to television advertising, companies promoting sweet and sugary foods are also successfully introducing their promotional material into the classroom.\(^{94}\) The British Soft Drinks Association is launching a schools pack for classroom teaching and Mars Ltd recently launched their M&Ms in classrooms.

Organisations such as Sustain argue that the effect of such heavy advertising is to increase the desirability and consumption of fatty and sugary foods among young children.\(^{95}\) The advertising industry, by contrast, argues that advertising simply encourages children to choose between brands, rather than to increase overall consumption.\(^{96}\)

The Co-operative Group has recently made the decision to commit itself to a voluntary ban on advertising during children’s hours of all food and drink products high in fat, sugar and salt.\(^{97}\) The Co-op has decided to do so because it believes that the combined impact of food and drink advertising during children’s TV viewing hours runs counter to both the government’s healthy eating guidelines and the spirit of the ITC code. It bases these views on surveys which show that both children and their parents believe that advertising has an impact upon what children choose to buy, as well as on the work of Sustain and Dr Aric Sigman who argue that advertising has a negative impact on children’s diets. Sweden bans all television advertising during children’s viewing hours.

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\(^{91}\) National Food Surveys MAFF

\(^{92}\) Frances K, Hird V, Lobstein T, Stayte L and Vaughan A, *Sweet and Sour, the impact of sugar production and consumption on people and the environment*, Sustain, 2000


\(^{94}\) Frances K, Hird V, Lobstein T, Stayte L and Vaughan A, *Sweet and Sour, the impact of sugar production and consumption on people and the environment*, Sustain, 2000

\(^{95}\) *Children: advertisers’ dream, nutrition nightmare*, National Food Alliance, London, 1993

\(^{96}\) Rayner M, *Parliamentary food and health forum debate – Children and Advertising*, Adwatch no. 8, National Food Alliance, November 1996

\(^{97}\) *Blackmail: the first in a series of inquiries into consumer concerns about the ethics of food production and advertising*. CWS, July 2000
The following paragraphs examine what evidence exists linking exposure to food advertising with people’s dietary choices and consequent health. It looks at food advertising in the general population and more particularly at children, and also discusses the issue of food labelling.

3.3.a Advertising – the impacts

Question: What impact does advertising have upon people’s diets, particularly that of children and what role do government policies play here?

The bulk of television and written advertising is monitored through the Independent Television Commission and the Advertising Standards Authority respectively. The ITC is a statutory organisation while the ASA is a self-regulating industry body.

The Food Standards Authority is currently in the process of reviewing advertising aimed at children and is in the early stages of developing a best practice guide for industry. The FSA has chosen to focus on children because they are seen to be a particularly vulnerable and impressionable group. At this early stage, the Agency has met with representatives of public interest groups, nutrition experts, enforcement authorities, food manufacturers and other regulators to discuss their concerns, the current regulatory and voluntary controls and initiatives to promote good practice in this area. In the light of these discussions the Agency is considering the scope for further action. This may include a public survey to ascertain parent’s views on food advertising to children.

EVALUATION: A major MAFF research report investigated the extent and nature of food related content in British terrestrial television programmes and advertisements. It also examined how home and family viewing affected children’s reaction to this content. The research process, which looked at 223 children between the ages of 11 and 8, and which included group discussions as well as in-depth interviews, examined 872 programmes and 1186 advertisements (more than four food adverts per hour of ITV output).

The researchers found that adverts for low nutrition, fatty and sugary foods outnumbered adverts for other foods. Fruit and vegetables accounted for less than 2% of the food adverts but for more than 30% of the food depicted in programmes. Fatty and sugary foods accounted for nearly 50% of food adverts but only a quarter of the food depicted in programmes.

The researchers concluded that ‘television’s contribution to food choices is made through the specific context of family structures and family relationships. Whatever the magnitude of its contribution, television’s message is highly mediated and filtered by family circumstances. Young people and their families are extremely familiar with television’s language, but this knowledge does not necessarily lead to action. *There appears to be no clear relationship between the ability of family-members to recall the details of a food brand and their consumption of that brand.* Young people’s and other household members’ decision-making appears to be as contradictory as the images they see on television [my italics].

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They go on to say that ‘Television cannot be conceived as an equivocally malign influence on young people’s food choices. Its contribution is best understood in the way it offers a kind of repertoire of different ideas and prescriptions about food use which help to give shape to the patterns of food consumption in the home. The different ideas and prescriptions will have different meanings and values for different family types, including social classes, and different family members, and will circulate and contribute in differing degrees depending on the family member’s role and status in the home, and on their tastes and preferences. This is the basis of a theory of television as a resource, preferable to a theory of ‘effects’ or ‘influences’ because it points to the idea of active as opposed to passive viewing and the idea that viewers are well-equipped and able to make their own interpretations of what television offers them [my italics].’

It is unclear whether the theory of television as a ‘resource’ is preferable to a theory of ‘effects’ or ‘influences’ because the author would like it to be so, or whether it is in fact the case that people do genuinely interact with their viewing in this way.

A study by Young,99 looked at the effect of television advertising on:
- Purchase requests made to parents
- Directly on food choice
- On children’s attitudes and values

While the study itself comes to ambivalent conclusions, a critique by Rayner100 feels that the evidence collated within the study pointed to a clear effect of food advertising on purchase requests made by children to parents. Of the 10 studies that Young et al identified, all but two made this link.

Rayner also points out that it is not easy to measure the size of the effect of food advertising on children’s diets. This is mainly due to a problem well known to epidemiologists – if everyone in a population is exposed to a similar level of a particular factor then it is difficult to demonstrate an effect.

Taking the issue from a different angle, research101 by the University of Bangor suggests that ‘advertising’ healthier foods to children can be highly effective in changing the way they eat. This has two implications – first that there could be role for policy makers to use advertising and promotional techniques to young children and second, that if advertising healthy foods is effective then the converse may also be true – advertising unhealthy foods is also effective.

The Bangor research team developed a promotional package, which they tested on children in a variety of settings. The intervention combined videos showing ‘food dudes’ (a group of slightly older peers) who in the course of their adventures eat and enjoy a variety of fruit and vegetables. The children are told that if they eat these fruit and vegetables too, then they can join the Dudes’ struggle to save the health of the children.

100 Rayner M, Parliamentary food and health forum debate – Children and Advertising, Adwatch no. 8, National Food Alliance, November 1996
of the world and defeat the evil General Junk and his Junk Punks. Small prizes (stickers, pencils, badges) are awarded to children who eat sufficient quantities of these foods. The vegetables offered included ordinary everyday ones such as carrots, peas, broccoli and apples as well as more exotic ones such as courgettes, mange touts and kiwis. Children were offered these foods prior to the start of the intervention, during the intervention period and after the system of rewards and videos had ended. Their intake of fruit and vegetables before, during, immediately after the intervention and some months later was monitored.

The initial study, which looked at 5-6 year olds deliberately chosen because they were fussy eaters, yielded the following results: prior to the intervention, children ate only 4% of the fruit and 1% of the vegetables offered. During the intervention this shot up to 100% of the fruit and 83% of the vegetables. And during a later follow up it was found that the programme was still working – 6 months later the children were still eating 100% of the fruit and 58% of the vegetables.

The studies were repeated in several schools and with different age groups, and the results were likewise highly positive. In all, the programme has undergone 14 studies, involving 450 children. The researchers conclude that the results have been:

- **Reliable** – results were consistent in a number of studies
- **Large** – increase in fruit and vegetable consumption was always at least 50% and often considerably more
- **Extended to a variety of fruit and vegetables** – children learnt to identify, try and enjoy a wide range of fruit and vegetables.
- **General across contexts** – intake is higher both in the school or nursery, and at home. Indeed 100% of parents felt their children had benefited from the scheme, 88% said their children had increased their intake of fruit or vegetables or both and 77% of children asked their parents to buy fruit or vegetables not previously on the shopping list.
- **Long lasting** – even 15 months after the intervention the changes in consumption persisted

The researchers conclude as follows: ‘The programme works because the video and rewards influence children to taste the fruit and vegetables repeatedly, so that they are able to discover the intrinsically rewarding properties of these foods and develop a taste for them. In addition, they come to see themselves as ‘fruit and vegetable eaters’ and, having become part of a culture that strongly supports the eating of fruit and vegetables, they are proud to be so. It is, we believe, the combination of these powerful biological and physical factors that maintains the behaviour change over time. When it comes to eating healthily, children should not be written off. Far from it. They can change quite easily to eating healthy diets, if they are helped to do so.’

It would also be worthwhile to examine what effect restricting children’s exposure to advertisements has upon children’s eating desires and behaviour. Sweden would appear to be an ideal place to look – how has the Government’s decision to ban television advertising to children affected what they eat? However no such evaluation appears to exist, partly because the impact of banning advertising would be difficult to isolate from the significant work that the Swedish Government is already doing in the field of healthy eating promotion, and partly because Swedish children are also exposed to satellite television channels where no advertising restrictions exist.
3.3.b Food labelling

Question: do food labels influence people’s food choices, and what is the role of Government here?

The Food Standards Agency produced its Food Labelling Review in September 2000. This makes a series of recommendations for improving labelling standards, based on consumer concerns that the information on labels was confusing and sometimes misleading.

Changes made to labels will need to be submitted to Europe, which may take time. In the meantime, good labelling practice is currently being promoted by the Joint Health Claims Initiative, a body comprising representatives from the voluntary, public and private sectors.

EVALUATION: Research mentioned by the FSA\textsuperscript{102} looked at consumers’ views on labelling, rather than the actual impact of labelling on consumers’ food choices.

There is however one MAFF commissioned research project that has looked at the influence of health and nutrition claims on consumer food choice.\textsuperscript{103} The research project objectives were to:

- Develop a set of methods to measure consumer use of label information in choice decisions
- Relate acquisition and use of information by consumers to their underlying beliefs and attitudes
- Measure the effect of label health and nutrition claims on food choice.

The research looked at 23 studies using a variety of methods ranging from questionnaires through to highly controlled laboratory based studies, to studies within the supermarket. The research process drew upon insights from a variety of disciplines including ergonomics, cognitive psychology and social psychology.

On the one hand, the report concludes that claims are a highly important feature of food labels and hence may be a useful means for raising consumer awareness of both general and specific nutritional issues. On the other, it points out that the direct impact of claims on the choice of individual products appears to be limited and hence they do not provide a useful direct route for improving the population diet through promoting specific ‘healthy’ foods. It also states that this limited effect also argues against being unduly concerned that nutrition and health claims mislead the public or offer unfair marketing advantage to those making the claims.

3.4 AGRICULTURE AND THE COMMON AGRICULTURAL POLICY

\textsuperscript{102} Food Labelling Review, Agenda item 8, 21 September 2000, Food Standards Agency, London, 2000

\textsuperscript{103} Institute of Food Research, MAFF Project AN0903 / IFR 305.0380 B, The influence of label health and nutrition claims on consumer food choice, Final scientific report to MAFF financial year ending 1994
Question: to what extent do the subsidy and support structures of the CAP influence the type of food we eat?

Issues: There is concern by many NGOs and academics that neither the Common Agricultural Policy, nor any of the other policies of the European Union that affect the quantity, price and quality of food are designed to produce a healthy diet. They argue that the basic aims of the CAP are now outdated. The original purpose of the Common Agricultural Policy was to address a fundamental public health problem – the lack of food. This goal has been achieved and other goals including that of environmental protection should now be assigned a higher priority. In addition, while the main objectives of the CAP also included increasing agricultural productivity, ensuring a fair standard of living for the agricultural community and ensuring access for all to supplies at reasonable prices, it is arguable that CAP has now lost sight of some of these original objectives in its concentration on supporting the agricultural sector.

Lobstein and Longfield point out that there is no ‘European food policy’ but rather a number of food related policies and activities which are the responsibility of a number of different directorates and EU-supported agencies. The promotion of healthier diets is not the responsibility of any one single department within the EU. They also argue that food production activities (agriculture, processing, marketing) are largely divorced from nutrition policies (public health, consumer choice, special needs). Food industry concerns also largely predominate.

Hird states that vast bulk of the CAP subsidies is spent on meat and dairy production, along with substantial protection measures for sugar, wine and tobacco production. Two thirds of the total support given to farming in 1997/8 went to the livestock sectors. Arable grain production also receives large subsidies, and over half of what is produced is animal fodder – another form of support for the meat industry. We have a situation where taxpayers and consumers support industries which, among other things, are producing far too much of the foods we already eat to excess, while their taxes largely fail to support fruit and vegetable producers.

The latest round of CAP reforms, Agenda 2000, fixed the level of CAP expenditure to rise less than 10% over the next 6 years. However the way the money is used has changed little – although funds will be available for green farming schemes, some 90% of the CAP budget will still go towards production support. This means that direct

104 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
105 Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), Health Impact Assessment of the EU Common Agricultural Policy, Swedish National Institute of Public Health, November 1996
107 Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), Health Impact Assessment of the EU Common Agricultural Policy, Swedish National Institute of Public Health, November 1996
108 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
109 Vicky Hird, Farm subsidies – who needs them? Food Magazine, Jan/March 2000
110 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
payments to beef and arable farmers have been increased while price support is reduced. In addition, milk quotas have been increased and the slaughter premium has been introduced, which gives farmers payments (around £40) for each animal slaughtered.\textsuperscript{111}

The table below shows the CAP support to UK agriculture in 1997 (price support and direct aid combined)\textsuperscript{112}

<table>
<thead>
<tr>
<th>Agricultural product</th>
<th>£ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>1060</td>
</tr>
<tr>
<td>Sugar beet</td>
<td>140</td>
</tr>
<tr>
<td>Fruit and vegetables</td>
<td>160</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>165</td>
</tr>
<tr>
<td>Proteins</td>
<td>70</td>
</tr>
<tr>
<td>Linseed</td>
<td>35</td>
</tr>
<tr>
<td>Set aside and AAPs</td>
<td>145</td>
</tr>
<tr>
<td>Beef</td>
<td>1240</td>
</tr>
<tr>
<td>Sheep</td>
<td>525</td>
</tr>
<tr>
<td>Dairy</td>
<td>1505</td>
</tr>
<tr>
<td>Poultry</td>
<td>220</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5265</td>
</tr>
<tr>
<td>Price support as % of total</td>
<td>53%</td>
</tr>
</tbody>
</table>

The following paragraphs look at key food areas (i.e. those which have the greatest bearing on our health) and examine evidence to demonstrate the impact of the CAP on the availability and price of foods that in turn influence people's food choice. Key issues here include food pricing, subsidies and support, the overproduction of foods and mechanisms for dealing with surplus, and specific food/nutrition policies. Although environmental issues are extremely important, this discussion confines itself solely to matters relating to nutrition.

Instead of presenting separate conclusions for each subsection (as we have done in other parts of the report), given the complexity and interconnectedness of the EU policies we have decided to group the evidence, where that exists, into an overall evaluation section that looks at the separate elements as a whole.

The discussion draws heavily upon two reports in particular, a discussion paper prepared by Tim Lobstein and Jeanette Longfield for the (then) Health Education Authority\textsuperscript{113} and a report published by the Swedish National Institute of Public Health.\textsuperscript{114} Both examine in considerable detail the impact of EU food policies (particularly the CAP) upon public health. The following sections summarise some of their findings and draw upon the work of other relevant organisations, particularly Sustain.

\textsuperscript{111} Vicki Hird, \textit{Farm subsidies – who needs them?} Food Magazine, Jan/March 2000
\textsuperscript{112} MAFF Economic and Statistics Group, August 1999
\textsuperscript{113} Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
\textsuperscript{114} Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), \textit{Health Impact Assessment of the EU Common Agricultural Policy}, Swedish National Institute of Public Health, November 1996
3.4.a Meat

Question: Do agricultural policies promote or discourage the consumption of meat?

i. Financial support
The EU routinely pays out large sums in supporting high meat prices, purchasing and arranging the storage of surplus meat and subsidising its export. As discussed above, meat production is the sector receiving the greatest degree of financial assistance, and much of arable subsidy is also for animal feed.

In 1997 nearly half a million tonnes of meat were in EU intervention storage sites, equivalent to about three pounds of meat for every person in the European Union.\(^\text{115}\) Surplus meat is held in storage under EU intervention arrangements and is eventually disposed of – to non-EU countries, as food aid overseas or to low-income groups in Europe.

ii. Promotion
The UK has also funded schemes to promote or sustain meat consumption. In September 1997 a grant of £22 million was announced to promote beef consumption in Europe through television and other media and public relations activities.

iii. Nutritional differences of livestock reared under different conditions
The Common Agricultural Policy’s overriding goal of increasing productivity is one of the factors that has led to a growth in intensive methods of animal rearing. This has had implications for our health.

A comparison of similar breeds of cattle reared intensively and extensively found the latter animals to have 9% adipose fat compared with 28% in the intensively reared cattle.\(^\text{116}\) Wild pigs typically have a saturated to non-saturated fat ratio of 1:2. With intensively reared pigs, the ratio is dramatically reversed, to 1:0.2 – a transformation by a factor of ten in the wrong direction.\(^\text{117}\)

Poultry production, although not subject to the same subsidy structure as red meat, has increased greatly due to consumer demand. It is also highly intensive, and the EU grain subsidy may have contributed to this. Since a hundred years ago, the carcass fat content of the typical chicken has risen by 1000%. An average 100 gram portion of raw chicken meat will contain 4.3 grams of fat, and this rises to 17.3 grams with skin.\(^\text{118}\)

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\(^{115}\) EC Agricultural Produce in Public Intervention and Assisted Private Storage, UK Intervention Board, 1997

\(^{116}\) Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999

\(^{117}\) Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999

\(^{118}\) Alexis Vaughan, Fowl Deeds: the impact of chicken production and consumption on people and the environment, Sustain, 1999
3.4.b Dairy

Question: how does the subsidy and support structure affect milk consumption and the fat content of the milk supplied?

i. Price support
Dairy products are highly subsidised (see table above). Price support is provided for the main dairy products – milk, milk powder, butter and some cheeses – by means of four mechanisms:119

- Taxing imports
- Subsidising exports, mainly for butter and milk powder
- Intervention buying and storage of surpluses
- Subsidised usage schemes for butter and skimmed milk powder

Quotas regulate the amount of milk produced, although Agenda 2000 has increased this limit (see above).

In the case of surplus butter, assistance is given to manufacturers who purchase the butter, provided they use it for specific purposes. These include the manufacture of pastries, ice cream and chocolate. The butter is therefore being squeezed back into the food chain by EU-financed subsidies. The amount being squeezed back is equivalent to 3kg a year for every household in Europe – a quarter of all butter consumed – while the aid to manufacturers knocks about 85p off every kg of butter they use.120

On the other hand, the yellow fats regime appears to have kept the retail price of butter well above the world market price, thus steering consumption patterns towards use of vegetable oils. From a nutritional viewpoint, reduced consumption and replacement with products with low saturated fat content would be a positive development and needs to be taken into account during future CAP reforms.

ii. Promotion
Subsidies are available from the EU Intervention Board to assist not-for-profit organisations to purchase butter from the open market, increasing saturated fat consumption for those who might otherwise regard this as a luxury. These include nurseries, universities, hospitals, nursing homes, accommodation for the homeless etc.

The EU has also initiated a scheme to encourage the purchase of milk and cheese from the open market at reduced prices for school children. However, there is a strong imbalance in favour of supporting whole milk purchases for schools, and not fat reduced milk. Some variations (i.e. in favour of purchasing low fat milk) have been allowed for in Sweden and Finland, and an unofficial scheme is run in Denmark.121

119 Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), Health Impact Assessment of the EU Common Agricultural Policy, Swedish National Institute of Public Health, November 1996
120 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
121 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
In addition, a total of 67.3 million Euros was spent by the EC in 1993-4 on giving assistance to member states’ dairy organisations to mount promotional campaigns for dairy products, including butter and cheese. A similar campaign was run in 1994-5, and another campaign was launched in 1996 promoting milk to 15-25 year olds. This promotional budget has now been substantially reduced.

In the case of milk products, in favouring high fat dairy products at the expense of low fat alternatives, the subsidies and the promotional aid make it more difficult to fulfil national dietary guidelines to reduce saturated fat intake. As the milk subsidy scheme is targeted at primary schools, day-care centres and establishments catering for low-income groups, these schemes could be considered to be especially detrimental to the health of the most vulnerable sections of the population. However, implementation in the UK has increasingly emphasised the importance of semi-skimmed milk.

Evidence from the Swedish Dairies Association indicates that in the first year after the introduction of EU subsidies in 1995, approximately half of schools and day-care centres had changed their behaviour, mainly towards milk with a higher fat content. Among the municipalities that changed, the largest switch was from skimmed milk to semi-skimmed milk, and to a lesser extent an increased consumption of whole milk (mainly among day-care centres). Encouraging children to drink milk with higher fat content entails a risk that they may develop a preference for the taste of this type of milk and will in future choose milk and other foods with a high fat content.122

As a qualifying note however, it should be said that despite the promotion of and support for full fat milk, semi-skimmed milk is growing in popularity among consumers.

iii. Nutritional composition

The trends at present in Europe show the butter content of milk to be gradually creeping upwards, although there are penalties for exceeding the set butterfat values.

3.4.c Fruit and vegetables

Question: Do agricultural policies promote or discourage the consumption of more fruit and vegetables?

i. Price support

The CAP rules on fruit and vegetables seem to constitute a barrier to the public health goal of increased fruit and vegetable consumption and to impose unnecessary health costs, particularly penalising low-income consumers. Sometimes more than half of the money spent on the fruit and vegetable sector has gone on withdrawing good quality produce from the market, solely for the purpose of maintaining high prices.123


123 Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), Health Impact Assessment of the EU Common Agricultural Policy, Swedish National Institute of Public Health, November 1996
High rates of intervention withdrawal in the last decade led to reforms implemented in 1996 that lowered the compensation rates in the hope that this might lower the quantities produced. The effect of this reform has yet to be evaluated. The purpose behind both the old and new regimes is to maintain the prices for fruit and vegetables at levels above the minimum considered viable to ensure continued production. Virtually all fresh produce, including fresh pulses, salad vegetables, brassicas, fresh fruit and nuts are eligible for price supporting withdrawal compensations although in the UK at present compensation is only being claimed for the withdrawal of tomatoes, apples, pears and cauliflowers.\textsuperscript{124}

\textit{ii. Promotion}
Under current withdrawal schemes, the fruit and vegetables withdrawn can be used as animal feed, converted into industrial alcohol, ploughed into the soil or made inedible prior to dumping. It is also possible for the withdrawn produce to be used for human consumption but in the UK this is rarely done. This may partly be because there is little support from EU funds for promoting fruit and vegetables. In 1996/7 and 1997/8, of 2272 tonnes of apples withdrawn, only 3 tonnes were distributed for human consumption – and the figures were zero for pears, cauliflowers and stick beans.\textsuperscript{125}

\textit{iii. Nutritional composition}
There is some evidence that there has been inadvertent sidelining of some varieties of crops in the pressure to increase production. There are several varieties of apples with vitamin C content double, and in some cases treble, that of the widespread heavy-cropping Golden Delicious that dominates the market with over 50\% of UK sales.

3.4.d Sugar

\textit{Question: to what extent do agricultural policies promote excessive consumption of sugar?}

\textit{i. Price support}
Sugar is one of the most heavily subsidised agricultural commodities in the world.\textsuperscript{126} The United States protects its domestic sugar producers with the US Sugar Program and the EU does the same with its EU Sugar Regime. Both have the effect of reducing the world price of sugar, which has a serious economic effect on low-income countries that are dependent on cane sugar. Both systems have multi-lateral agreements with other (mainly poor) countries to import certain quantities of sugar. The costs of financing both systems are borne by the consumer, paying around double the world market price. Overproduction continues, especially in the EU, which dumps any excess on the world markets, further exacerbating the low sugar prices on the world market. The Regime uses a number of economic instruments which are all connected, including: price guarantees, import and export regimes, including preferential import schemes; producer

\textsuperscript{124} Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
\textsuperscript{125} figures quoted in Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
\textsuperscript{126} Frances K, Hird V, Lobstein T, Stayte L and Vaughan A, Sweet and Sour, the impact of sugar production and consumption on people and the environment, Sustain, 2000
levies and a quota system. Although a quota system was set up to prevent overproduction it is argued that the system has actually instituted a considerable level of over production and a huge increase in Europe’s share of the world sugar market. Nearly four million tonnes of subsidised sugar were dumped on world markets in 1998/9.\textsuperscript{127}

Although the consumer in Europe pays roughly double the world market price for sugar it is still extremely cheap. We now buy substantially fewer packets of sugar as a population but our consumption of ‘hidden’ sugar in sweet and savoury foods and in drinks has been rising, so that our overall consumption has fallen only a little in the last twenty years. Typically we now eat about 35kg of sugar per person per year, down from higher levels, but still about twice the levels recommended by experts. About one in ten adults eats over 60kg of sugar.

\textit{ii. Promotion}

The EU does not appear to subsidise sugar consumption directly.\textsuperscript{128} Arguably, however, it does not need to as the food industry is already doing so with great success (see 3.3 above).

\textit{iii. Nutritional implications}

Foods with lots of added sugars are likely to contain plenty of calories but have low levels of essential nutrients. A government panel of medical and nutritional scientists\textsuperscript{129} reviewed the role of sugar in diet for the Department of Health in 1989.\textsuperscript{130} It found that people who eat a sugar-rich diet may be deprived of essential vitamins and minerals. This is confirmed in surveys showing that people who get more of their calories from sugar tend to have lower levels of micronutrients in their diet than people who rely less on sugar for their calories.\textsuperscript{131}

3.4.e Overall evaluation

\textit{Question: What is the overall impact of the CAP and other agricultural policies upon people’s diets?}

The conclusions of Lobstein and Longfield and of the Swedish report are that, on the whole, the CAP has not made a positive contribution to people’s dietary intake of recent years.

\textsuperscript{127} Sugar Supply Balance 4.3.4.1 Directorate General Agriculture, European Commission, Brussels, 1998
\textsuperscript{128} Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999
\textsuperscript{129} Committee on Medical Aspects of Food Policy. Report of the Panel on Dietary Sugars. Dietary Sugars and Human Disease, Department of Health Report on Health and Social Subjects No 37, HMSO, 1989
\textsuperscript{130} the focus here is on non-milk extrinsic sugars
\textsuperscript{131} Committee on Medical Aspects of Food Policy. Report of the Panel on Dietary Sugars. Dietary Sugars and Human Disease, Department of Health Report on Health and Social Subjects No 37, HMSO, 1989
The picture is, however, complex. Lobstein and Longfield refer to the work of Hensen and Swinbank\textsuperscript{132} who argue that the specific measures in the CAP have not necessarily had a negative impact on health, in the sense that prices have been artificially increased most for butter, beef and sugar (thus discouraging consumption of the foods we should eat less of) and increased less for wheat, fruit and vegetables (thus encouraging higher consumption, which is good for health). However, Lobstein and Longfield also point to the work of Leather\textsuperscript{133} who has argued that, even given this argument about relative prices, beef and milk are not easily replaced by fruit and vegetables in our current culture, and are viewed as an essential part of the diet by many low-income families: the effect of artificially high prices for all food is to reduce any spare cash which a low-income household might have used to buy ‘less essential’ (and less filling) fruit and vegetables. In any case, Hensen and Swinbank’s focus on prices may be missing the point, as the quantities produced in response to subsidy incentives may be more important, as argued above.

It is hard to predict whether, if the prices of food commodities fell to world market levels, there would necessarily be a large change in dietary patterns. Prices may have a bearing on food selection within an overall weekly budget but so do many other factors, including health and advertising messages, accessibility, taste, family pressures and cultural influences.

Longfield and Lobstein argue that the food industry has invested over decades in production systems to make use of meat and fatty foods and so price changes may well not alter what it being produced. They also point out that surplus production of a commodity has not led to lower prices and hence a reduction in production but instead to the re-insertion of the food into other parts of the food chain – for instance butter into pastry and ice cream.

The reforms proposed under the Agenda 2000 programme of adjustments to the CAP are designed to reduce the price supports being given to farmers and to move gradually towards support for greener farming practices that create employment. However, despite the good intentions, removing the price support system for mainstream food commodities may not result in farmers producing less or moving towards more extensive farming methods. They may simply further their efforts in order to be able to compete with overseas producers in the US, Australia and elsewhere. From a nutrition point of view, while Agenda 2000 offers the opportunity to increase farmers’ sensitivity to changes in consumer preferences through the separation, or ‘decoupling’ of farm support payments from the price of commodities, there is no explicit move towards healthier food crops. Longfield and Lobstein conclude by saying that if consumers’ needs for better diets are to take a higher priority in EU agriculture policies, then further changes to agricultural policies will have to be considered beyond those which reduce the price supports.

\textsuperscript{132} Henson S and Swinbank A, \textit{The CAP, diet and Nutrition}, Paper produced for a Consumers in Europe seminar on 26 February 1997

\textsuperscript{133} Leather, S, \textit{The CAP, diet and nutrition: a consumer view}, Paper produced for a Consumers in Europe Group seminar on 26 February 1997
The authors make a number of recommendations for shifting the EU towards the promotion of healthier foods. These include:

- a dramatic reshaping of the CAP support system so that the production of meat and dairy foods is discouraged, while the production of fruit and vegetables and cereals for human consumption is greatly encouraged. Conversion schemes should be funded to encourage meat and dairy producers to reinvest in alternative products, or at least to reduce the intensity of their production methods.

- a review of all food promotion schemes undertaken by EU institutions, and support for the disposal into the human food chain of dairy products – especially high fat versions – needs to be replaced by effective marketing and promotion of fruit, vegetables, starchy foods, nuts and seeds.

The conclusions of the Swedish report are similar in some ways. They point out that ‘The impact of the Common Agricultural Policy on public health is complex…The link between the CAP and health varies from sector to sector. Its main positive contribution to health has been to ensure a security of supply in Europe, but the re-emergence of food poverty suggests that in a modern economy, having plentiful supplies does not automatically mean that these are available and accessible to everyone at reasonable cost. Equity issues need to be brought to the fore once more to re-focus debates on the original CAP objectives of ensuring availability and reasonable prices for all.’

The report’s authors believe that an ideal policy goal for the CAP, from a health perspective, would be that the pattern of subsidies reflected nutritional goals, but this is not the case. In some instances a relatively minor alteration in the regime – for example concerning skimmed milk in the subsidised school milk scheme, would bring the policy more in line with public health objectives. Other health aspects of the CAP pose far more complex problems and require long term strategic thinking. There is clearly a need for a public health input in EU policies which have such a crucial influence in people’s lives.

3.5 SOCIAL EXCLUSION AND LOW INCOME

Key Questions: Which government policies affect the ability of people on low incomes to access and afford healthier foods? What evidence is there to support a link between policy and impact? Do policies to improve access to and availability and affordability of fruit, vegetables and healthy foods by socially excluded groups affect their food habits and patterns of consumption? What strategic policies is government putting in place to tackle the issue of social exclusion with regard to food and health?

Issues:

134 Improving diet and health through European Union food policies: a discussion paper prepared for the Health Education Authority by Tim Lobstein and Jeanette Longfield, Health Education Authority 1999

135 Göran Dahlgren, Paul Nordgren and Margaret Whitehead (eds), Health Impact Assessment of the EU Common Agricultural Policy, Swedish National Institute of Public Health, November 1996
Poverty remains a serious problem. One third of children live below 60 percent of the median income (after housing costs).\textsuperscript{136}

Low-income groups are more likely to be obese or overweight, and are more likely to die from a number of diet related diseases including diabetes, coronary heart disease, strokes and cancers.\textsuperscript{137}

The groundbreaking Acheson report, published in 1998\textsuperscript{138} recommended that action be taken to tackle the root causes of the inequalities in health – in other words to address the socio-economic determinants of ill health as well as action to attempt to change individual behaviour. Although the first official document of its kind specifically to link poverty and income with the quality of diet, it did have its precursors in the form of the Black Report\textsuperscript{139} and the report of the Conservative Government’s Low Income Project Team which acknowledged the problem of poverty-related ill health although income did not form part of its remit.\textsuperscript{140}

The reasons why ill health and poor eating habits are so prevalent among low-income communities are complex. However, work by Suzi Leather,\textsuperscript{141} Sustain\textsuperscript{142} the Social Exclusion Unit and others\textsuperscript{143} has highlighted the particular problems that low-income groups have in accessing and affording healthier foods, particularly fresh fruit and vegetables. Access and affordability are matters that relate to a range of policy issues, including the benefits system and the price/affordability of food. There are also links with planning policies and the location of retail outlets, which is affected by the increased concentration of retail power in the hands of supermarkets. The following paragraphs discuss some of these issues in terms of the potential impacts of past and present policies.

3.5.a Food and its affordability

\textit{i. Changing the pricing structure}

\textit{Question: does the way certain foods are priced affect people’s food purchasing decisions?}

Work by Lobstein\textsuperscript{145} shows that while food has become relatively less expensive since the mid-1970s, the cost of healthier foods has risen faster than that of unhealthy foods. While the average increase in prices between 1982 and 1995 was 62\%, the increase in,

\textsuperscript{139} Townsend P and Davidson N, \textit{Inequalities in Health (the Black Report)}, Penguin, London 1982
\textsuperscript{140} \textit{Low income, food, nutrition and health: strategies for improvement. Report by the Low Income Project Team for the Nutrition Taskforce}, Department of Health, 1996
\textsuperscript{141} Leather S, \textit{The Making of Modern Malnutrition}, Caroline Walker Trust, London 1996
\textsuperscript{142} \textit{Myths About Food and Low Income - “If They Don’t Eat a Healthy Diet it’s Their Own Fault!”} Sustain 1997
\textsuperscript{143} Myths About Food and Low Income: What are the Policy Options?, National Food Alliance, 1998
\textsuperscript{144} Improving Shopping Access for People Living in Deprived Neighbourhoods, a paper for discussion, Policy Action Team 13, Department of Health 1999
\textsuperscript{145} Lobstein T, \textit{Myths about Food and Low Income}, National Food Alliance 1997
for instance, the price of oranges was nearly 80%, fresh fish 110%, yoghurt 115% and leafy salad 86%. In contrast, the price of chocolate biscuits rose by only 54%, ice cream 44%, margarine 39%, sausages 37% and cream 12%. The overall pattern is similar for broader patterns of foods.

Keenly competitive among themselves, many supermarkets have now introduced discounted or ‘value’ lines on popular items. There have, however, been criticisms that the discounts have mainly been on fatty, sugary foods, not on healthier products. However, the supermarkets have responded by pointing out that they have also discounted other products including orange juice and fruit and vegetables.

A paper by Tom Marshall in the British Medical Journal explores the potential effects of fiscal measures on diet and ischaemic heart disease. The paper argues that there is a clear economic rationale for this approach: the correction of market failure caused by externalities. When ischaemic heart disease strikes, there are costs to the community (productivity losses or indirect costs) and to the health service (direct costs) and a case can therefore be made for using taxation to compensate for the external costs of an unhealthy diet.

The paper’s argument is based on two premises: firstly, that increasing the budget available for spending on food will improve nutrition, as higher income groups in Britain typically have more nutritious food consumption patterns, and secondly that systematically altering the relative prices of different foodstuffs will affect food consumption.

With regard to the second argument, Marshall states that consumption of foods with the greatest elasticities of demand is most likely to be affected by price changes. This said, there is little information regarding the specific price elasticities of whole milk, butter, cheese, biscuits, buns, cakes and pastries, puddings and ice cream.

Most foods are exempt from VAT and Marshall argues we need to put VAT on the principal sources of dietary saturated fat while exempting cholesterol neutral foods that are currently taxed, such as orange juice and low fat frozen yoghurt.

Marshall concludes by pointing out that because poor people spend a greater proportion of their income on food than rich people, they are likely to be more sensitive to price changes. They are also at higher risk of ischaemic heart disease. The health benefits of such a policy are therefore likely to be progressive. But most consumers will end up spending more on food and this will disproportionately affect the poor. An important part of such a strategy should therefore be to compensate low-income groups by raising their incomes (in other words increasing the budget available for spending on food – premise one). The approach most directly targeted at nutrition would be to place the tax on unhealthy foods while simultaneously raising the value of welfare benefits, particularly those intended for children in low-income groups, who are in any case not the target of this policy. Since food taxation would raise revenue, the overall effect on government finances would be neutral.

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147 Exploring a fiscal food policy: the case of diet and ischaemic heart disease, BMJ, January 2000
EVALUATION: As the policy does not exist in the UK it is not possible to evaluate the effect such a measure would have. However, it may be worth exploring overseas examples that have relevance for the UK situation, bearing in mind that the elasticity of certain foods will vary from country to country depending on people’s tastes.

With regard to supermarket pricing policies, the Food Commission review of ‘value’ supermarket lines may be worth updating to see if supermarkets have responded to criticisms.

ii. The benefits system

Question: Do benefits and income support policies affect people’s ability to afford a healthy diet?

A number of campaigning organisations and academics argue that people on low income experience food poverty – the inability to access and afford a healthy diet. This examination of the benefits systems looks specifically at the issue of affordability. The access question is discussed in 3.5.b below.

Numerous studies in the 1970s, 1980s and 1990s highlighted food poverty, and demonstrated that the amount of benefits claimants received was insufficient to enable them to afford a healthy diet that met government nutritional standards. They also showed that people on low incomes spent relatively more of their income on food than did higher income groups.

Sustain and others point out that with very limited funds to spend on food, it may in fact make more sense to stock up on fatty sugary foods (which offer better value in terms of calories per pence spent) than on healthier foods and fresh vegetables. In addition, healthier, unprocessed foods often require more preparation and cooking so using up costly fuel. Finally, cultural practices and tastes play an important part – sugar- and fat-rich foods are comforting and familiar, while healthier options risk being rejected by other members of the family. With no additional cash to fall back on, many parents conclude that it is safer to offer foods they know their children will eat, rather than spending the money on food that may be rejected.

EVALUATION: In Food Poverty: What are the Policy Options? Sustain argues, among other things, that a reform of the benefits system is a prerequisite to a healthier diet for all and makes a number of detailed suggestions as to the options available.

A 1995 report based on a conference hosted by the Maternity Alliance argued that a low-cost but acceptable and healthy diet for pregnant women was beyond the financial reach of most women on income support. This conclusion was based upon the drawing up of a culturally realistic and extremely modest weekly diet plan that met government

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148 reviewed by Lang, T in Dividing up the cake: food as social Exclusion in eds. Walker A and Walker C, Britain Divided: the growth of social exclusion in the 1980s and 1990s, Child Poverty Action Group, London 1997
149 Myths About Food and Low Income - “If They Don’t Eat a Healthy Diet it’s Their Own Fault!” Sustain 1997
150 Food Poverty: What are the policy options? National Food Alliance 1998
151 Dallison J and Lobstein T, Poor Expectations: Poverty and undernourishment in pregnancy, The Maternity Alliance, 1995
nutritional standards; this was found to be financially beyond the reach of most pregnant women on low incomes. The report’s authors argued for a range of policy changes to remedy the situation. With regard specifically to the benefits system these included a call for the introduction of an income support premium for pregnancy to ensure that nutritional requirements can be met at a time when other expenses are also increasing. It is unclear to what extent these views would now be subject to modification, as the benefit system has been reformed since 1997.

There is certainly evidence to suggest that people on low incomes share the rest of the population’s desire to eat healthily. A survey of low-income families published by NCH Action for Children ¹⁵² found that, when asked what they would do with an extra few pounds to spend each week, food was mentioned most often as the item they would spend more on. More specifically, when parents on low income were asked what food they would buy for their children if they had an extra £10 to spend, 54% said they would spend the money on fruit and 38% on vegetables (the highest response was 60% for fresh meat). This compares with only 8% who said they would spend the money on treats and 3% on meat products such as sausages.¹⁵³

However while research certainly exists to support the argument that those on low incomes spend less on food in general and healthy food in particular, there has been less research to examine whether an increase in benefits payments (minus any other form of intervention) would actually lead to greater spending on more nutritious foods.

Of course a situation where income increased while other variables did not is fairly unlikely – an increase in income as a result of starting a job, for instance, can lead to a number of other consequences including a broadened social network, and hence a move out of social exclusion not just in its economic but also in its psychological and cultural sense. It is therefore difficult to see exactly how the impact of increased income could be assessed and evaluated. Another factor complicating the evaluation process is that while it is understandably not difficult to find any number of people willing to have their incomes increased, there are far fewer who are willing to be the control group and in the process live on less than the others.¹⁵⁴

Despite these difficulties there is one study¹⁵⁵ which may be of relevance. This study looks at the experience of a community food initiative in Paisley. The scheme provided a crèche and minibus to enable local shoppers to access stores with a wider selection of more affordable produce. The results showed that while those with access to the service spent the same amount as the control group they got more for their money and, as a result of this gain, they bought increased quantities of fruit, vegetables and other fresh produce (meat & fish). The scheme was externally evaluated with funding from the then Scottish Office.

¹⁵⁴ Martin Caraher, Centre for Food Policy, Thames Valley University, personal communication March 2001
¹⁵⁵ Report of Findings of Ferguslie Community Health Project Food Poverty Group Research Project, Ann Hopkins and Associates, Glasgow, undated
The experiences of other local community food schemes also throw a little light on the matter and the outcomes of these initiatives are examined below. Although there is some evidence to suggest that participants do in fact make healthier choices once healthier foods are made more affordable, much of this evidence is limited or anecdotal. Moreover it should be stressed that by far the greatest and most commonly mentioned impacts of such initiatives are not nutritional at all but to do with developing social networks, community empowerment and confidence building.  

3.5.b Access to shops in low-income areas

i. Food deserts and retailing in low-income areas

Question: What impact does the retail planning system have upon socially excluded groups’ ability to access healthier foods?

Extensive research carried out by, among others, Leather, Sustain, Dowler, and Lang has highlighted the concept of the ‘food desert’ – areas of deprivation without adequate access to affordable, nutritious food. They argue that the closure of local shops over the years has hit the poorest the hardest and has led to a culture of car based shopping. However, with 84% of the poorest tenth of households without access to a car, these groups may not always be able to reach supermarkets located further away. They are therefore forced to rely on what local shops exist, many of which charge high prices.

Evidence exists to show that while the number of superstores in this country has increased from 457 in 1986 to 1,102 by 1997, some eight independent shops disappeared every day between 1986 and 1996 - a decline of almost 40%. Research has also shown that food in small, independent local shops can cost up to 60% more than that available in a supermarket.

EVALUATION: It should be noted that the issue of the ‘food desert’ is more complex than is sometimes suggested and the picture is not the same across the country. Access is a concept that has a wealth of emotional and economic as well as physical connotations. A recent study by Elizabeth Dowler for instance, which mapped access to healthy food in a deprived area of London, found that there were very few post-code areas where an inhabitant would have to walk more than 500 m to reach a food outlet of any kind. It concluded that:

- Those who are poor in London do not necessarily have worse food choice.

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158 Sustain, Myths About Food and Low Income - “If They Don’t Eat a Healthy Diet it’s Their Own Fault!” 1997
159 Sustain, Food Poverty; What are the Policy Options?, National Food Alliance, 1998
161 Harrison M and Lang T, Running on Empty, Demos Collection, December 1997
162 The Impact of Large Food stores on Market Towns and District Centres, DETR 1998
164 Elizabeth Dowler Mapping Access to Healthy Food in Deprived Areas: a pilot study.
• The number of fresh fruits and vegetables available in a given shop was likely to be larger in areas of higher deprivation
• There was no evidence that food was more expensive where deprivation was highest.

Despite these findings, Dowler does not then conclude that there is no problem. She points out that while most low-income residents felt that physical access to well-stocked shops was not a problem (apart from those with children, the disabled and so forth), the point they made over and again was that there most certainly was a problem of affordability. Those claiming benefits or pensions said that they simply could not afford to buy the foods they knew to be good for health even using the cheapest shops.

Furthermore, the situation in London is not necessarily the same in other parts of the country and there is a danger of extrapolating local findings to the national context. The next section looks more closely at the issue in the light of the PAT 13 report for the Social Exclusion Unit.

ii. The PAT 13 report

Question: what effect has the work of the Social Exclusion Unit, particularly the PAT 13 team (shops) had upon government policy and how has this influenced access to healthy food?

A report by Policy Action Team 13 of the Social Exclusion Unit has highlighted the decline over the last twenty years in the number of local shops serving deprived neighbourhoods.

The PAT 13 team identified three main reasons for the decline in local shops. These are:

• Falling and low demand: where there is a shop, people often do not want to use it and those that can take their spending power elsewhere, do
• Crime and the threat of crime: unsightly security measures and threat of personal safety put customers off using local shops
• Competition: lack of competition from alternative local convenience stores sometimes leads to overpricing and provides no incentive for improving quality resulting in the provision of poor quality goods.

Supermarkets and the larger retailers are reluctant to locate in low-income areas as the average spending power is low and the numbers of households in an area – around 3,000-4,000 – tends to be too low for the store to be commercially viable.

This said, the report argues that the current trends in neighbourhood retailing can be reversed. Using the latest information and technology, some neighbourhood stores have been able to increase their turnover by as much as 40 per cent with no capital outlay simply by putting the right product in the right place and giving it the right amount of selling space. It calculates that a community of 4,000 households, with a total average spend of £275,000 (i.e. on average £66 per week), would need spend only ten per cent of this at the local shop, and the shop’s turnover would be £27,500 per week,

165 Improving Shopping Access for People Living in Deprived Neighbourhoods: a paper for discussion, Policy Action Team 13, Department of Health, 1999
over £1 million a year. These data suggest that small communities can sustain small stores if they sell the right goods and are supported locally.

The report also highlights, as an example of a practical way forward, the concept of community owned retailing (COR). COR means that the neighbourhood store is community owned and run by the community on a commercial basis, with the profits reinvested into the community. A pilot store was recently opened in Longley, Sheffield, and aims to provide the community with healthier foods such as pasta, low fat dairy products and fruit and vegetables.

The report pinpoints five key challenges to be addressed if the goal of supporting more shops in deprived neighbourhoods providing a range of quality goods at affordable prices is to be achieved:

**A local retail strategy** - there is no established practice of developing a retail strategy when local regeneration strategies or plans are constructed. Consequently, there is no single person, organisation or body responsible for pulling together the views and needs of key local stakeholders (including the retailers themselves) so that retail needs can be planned and implemented successfully at local level;

**Proactive planning** - too often communities who are consulted about the future pattern of shopping facilities in their neighbourhood are not listened to and their views not integrated with discussions with local retailers. Planning tends to be about controlling development rather than actively promoting local retail centres or improving access for local communities to a range of everyday needs;

**Crime reduction and the fear of crime** - crime, particularly perceived or actual threats to personal safety, can impact negatively on the number of people circulating around the neighbourhood and entering stores. This may limit the amount of passing trade that the store might otherwise capture. Vandalism or graffiti may also deter local people. The problems are especially severe for ethnic minority traders;

**Improving business support for small retailers** - small neighbourhood retailers operating on tight margins do not necessarily have the resources to seek the expertise they need. Often information is not readily available. In addition, postcode intolerance and perception of ‘bad risk’ make accessing sources of finance for new shops, or improving existing ones, notoriously difficult for aspiring or existing traders in deprived neighbourhoods;

**Easing business burdens on small retailers** - small traders in deprived neighbourhoods work at extremely tight margins. This does not present a very attractive commercial environment for them to remain in or for new traders to enter. Easing the fiscal burdens, such as rents, rates and tax, on small businesses operating in these areas may provide the incentives needed to keep and improve the quality of provision already there and attract new investment in.

Following on from the PAT 13 report, January 2001 saw the publication of *A National Strategy for Neighbourhood Renewal*, which sets out a number of key actions for

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166 *A National Strategy for Neighbourhood Renewal*, Policy Action Team Audit, Social Exclusion Unit, January 2001
Government and other bodies to take to address the key problems which the earlier report had highlighted. The PAT 13 (shops) section made a number of recommendations based upon the problems summarised above. Those which have been accepted and which are currently being worked on include:

- Exploring the potential for the development of local retail forums in partnership with PAT 4 (neighbourhood renewal)
- A more proactive approach to planning to cater for local shopping needs
- Community consultation
- Promotion of mixed use developments
- More efforts to be made to recruit and procure locally (recommendation only partially accepted)
- Higher priority to tackling neighbourhood retail crime
- Action to reduce racial aggression and incidents
- Support for small businesses perhaps through the Small Business Service or the development of a National Micro Retailing Organisation
- More local authority support and advice for small businesses, as well as opportunities for training
- Work to be undertaken to explore the benefits and effectiveness of providing fiscal incentives (e.g. rate, rent and tax relief) for community stores and for encouraging new ones to set up in deprived areas

EVALUATION: The effectiveness of the actions resulting from the PAT 13 audit remains to be seen. Action by the relevant parties (including the Local Government Association, the DETR and the DTI) is still in the very early stages.

3.5.c Concentration and competition: the big retailers

i. Supermarkets and profits

Question: How do government policies regarding the regulation of supermarket power impact upon people’s ability to access and afford healthy food?

The last few years have seen a massive concentration of food retailing power into the hands of a few players. Today £66 of every £100 spent on groceries is at supermarkets. \(^{167}\)

While supermarkets have brought choice and lower prices to many, critics suggest that this choice has been at great profit to the supermarkets and at great environmental and social cost to the general public. The broader social and environmental issues are not the subject of this study but have been examined elsewhere. \(^{168}\)

The issue of supermarket profits and action by government to regulate those profits is relevant, because it affects the price of food and hence people’s ability to access and afford a healthy diet.


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Supermarket critics argue that the seemingly low prices which supermarkets are able to offer their customers have been achieved by paying their suppliers extremely low prices. This has consequences for the health of the rural economy and hence the ability of those within the farming community to access and afford healthy food.

At a more general population level, they have also argued that while prices may be low, they are not necessarily as low as they could be. Sustain, for instance, cites evidence to suggest that supermarket mark-ups on fresh foods may be higher than in other countries, such as France, America and Germany. There is also evidence showing that the price of fruit and vegetables in supermarkets is higher than that found at street markets. While a supermarket response might be that they are in the business of selling Grade I produce while the markets sell Grade II (which may be ‘inferior’ only in cosmetic terms), by locating near and hence competing with street markets, supermarkets can effectively kill off these markets, thereby reducing people’s ability to choose lower cost goods. There is evidence to show how markets have declined in number as supermarkets have grown, although the correlation may not reflect a simple causal process.

EVALUATION: In October 2000, the Competition Commission published its Supermarkets Inquiry. The conclusions it came to included:

- It found no evidence to suggest that supermarkets were making excessive profits
- It found that while prices overseas may be lower than in the UK, the comparison was affected by the value of sterling at the time and by the fact that land and building costs are higher in the UK
- It found evidence to suggest that negative allegations by suppliers gave cause for concern and recommended the adoption of a compulsory Code of Practice by supermarkets
- It found that the practice of promoting ‘loss leaders’ contributed to a situation in which the majority of products were not fully exposed to competitive pressure.

The Commission decided that, other than the development of a Code of Practice, it would take no further action because the industry is ‘broadly competitive.’

Supermarket critics have found the conclusions of the Competition Commission’s review extremely disappointing and argue that the examination of supermarket practices should have been placed in the context of their broader socio-economic impacts. Sustain believes that the remit of the Competition Commission should be broadened to include issues such as health, environmental costs and social exclusion. It also argues for new support to encourage independent local food retailers, including community shops, co-ops and farmers markets as well as calling for reforms in planning, transport and rural development policy.

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173 A Battle in Store: supermarket report fails society, Sustain, undated
ii. Supermarket location

To what extent do government policies regarding supermarket location affect peoples’ diets?

The arguments against out of town supermarket developments are now fairly well known and understood. From 1993 onwards, government policy has acknowledged the potentially damaging impact of out-of-town retailing in its Planning Policy Guidance. In 1996 Planning Policy Guidance (PPG) 6: Town Centres and Retail Development was published. This states that an out-of-town site should only be considered if there are no viable alternatives closer to the town centre and if it is genuinely accessible by choice of transport. It also advises against retail parks which allow the ‘comparison shopping’ typically the domain of the high street. Although these are guidance notes, not law, the introduction of both these PPGs resulted in a sharp reduction in approvals for planning applications by supermarkets.

Criticisms that out-of-town developments are only accessible to those more affluent sections of the population with access to a car have already been articulated above. It is also argued that out-of-town developments can have a negative impact on employment, and hence on people’s earning potential. A 1998 National Retail Planning forum report showed that, on average, when a superstore opens, 276 full time equivalent jobs disappear as a result of the closure of other food retailers and subsequent effects on suppliers and nearby non-food retailers. This means more people reliant on the benefits system and without the wherewithal to afford a healthy diet.

Recent years have seen the supermarkets responding to these criticisms by opening smaller ‘Tesco Metro’ style stores in the inner city high streets. However, these stores tend to threaten the few independent food retailers, the greengrocers, fishmongers and so on. While then, on the one hand, these smaller store formats may be of benefit to low-income groups, on the other they may hasten the decline of existing stores in the area. It might be worth exploring whether the Metro stores locate in areas where there is a genuine dearth of existing food outlets or whether they simply end up replacing the independent stores that already exist. It might also be worth examining the impact of the ‘Metro’ stores on local employment.

EVALUATION: there is little evidence to examine the impact of small Tesco Metro style outlets on employment and on existing food outlets. Further research might be useful here, as well as an examination of what Government measures might be needed to manage the situation.

3.5.d Community initiatives

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175 Planning Policy Guidance 6: Transport, DETR, 1993
177 Hawkes C with Hird V, Rankine K and Webster J, A Battle in Store? A discussion of the social impact of the major UK supermarkets, Sustain, September 2000
**Question:** What impacts do community-based food initiatives have upon a. accessibility and affordability of food and b. medium-long term changes in participants’ eating habits? What Government policies help and/or hinder the development of such initiatives?

Recent years have seen a proliferation of community based food initiatives, ranging from food co-ops to cookery clubs to gardening schemes. The following paragraphs highlight what evidence exists regarding their effectiveness and explores the role that government policy plays in the development of those initiatives.

**EVALUATION:** Most schemes that exist tend to be small and few of them are evaluated. Those that are rely heavily on anecdotal evidence.

One of the more major studies, funded by the Joseph Rowntree Foundation\(^{178}\) looked at 25 food projects throughout Britain. A mixture of quantitative and qualitative methods was used to collect information from all those involved in the projects.

In its findings, the report authors were keen to emphasise that ‘food projects should not be judged solely on whether they produce changes in nutrition or health outcomes measured over the long-term – such as changes in blood vitamin levels, or reductions in mortality, important though these are. They should also be seen as contributing to changes in short-term nutrition indicators, such as skills and confidence to use a wider range of foodstuffs than before, or to improved food purchasing or eating patterns through access to cheaper food.’

The authors conclude that while food projects are clearly not the only answer to addressing health inequalities, they can be part of a wider strategy to improve health. They require a facilitating policy environment that recognises their potential but is realistic about the problems facing those who live where food projects are found. The researchers conclude that the following are key to making food projects work:

- Flexibility
- Community ownership – where local people are regarded as equal partners in the project
- Patience
- Committed back-up
- Training and support
- Access to funding that is not short-term or only focused on innovation.

In the light of these conclusions, there is a clear role here to be played by Health Authorities, Health Action Zones, Local Authorities and others in providing sustained funding and support (rather than simply short term seed funding) for such schemes.

The Scottish Community Diet Project, which is funded by the Scottish Office and which runs a project grant programme for community food projects, has conducted two evaluations of the schemes it funds. Grants were awarded to a range of groups in a variety of settings – allotments, own homes, schools, community centres. Foodstuffs involved ranged from general groceries to specific promotions of fruit, vegetables, fish,

home made baby foods and healthy take-aways. Its 1998 evaluation\(^{179}\) finds that most projects have reported positive outcomes in terms of dietary education, dietary experience and dietary intake. Its 2001 review was also positive,\(^{180}\) with the vast majority of projects feeling that their projects have progressed better or much better than expected and that the benefits have been greater or much greater than expected. It should be emphasised that these findings are based on qualitative rather than quantitative data which, while an important approach to take, means that dietary changes have not been measured.

The Centre for Research at Loughborough University carried out a more detailed evaluation of one particular food scheme, the Saffron Food and Health project.\(^{181}\) This three year project, funded by the National Lottery Charities Board, involved the employment of a full time community dietician who used a community development approach to work with local people to address their concerns about food. The project developed a number of different initiatives, all of which were independently evaluated.

The researchers found that:

- The project was successful in that it worked with local people to help them achieve a healthier diet and change eating behaviour as well as attitudes to food. By the end of each initiative, people had made small sustainable changes to their own and their families’ diet. Perhaps most importantly interest in, and enjoyment of, food had increased.

- Each initiative was tailored to reflect the food concerns and interests of those who attended the sessions. Their existing cooking skills, knowledge of healthy eating and access to resources determined both the content and the delivery of information and advice.

- The project worked with local people to provide advice about eating for health that was both enjoyable and affordable. Cost was especially important as the majority of people who attended the sessions managed to feed their family on a limited budget. Mothers spent approximately £30 to £35 per week to feed a family of four: that is they fed each person for an average of £1.16 a day.

- A community development approach was key to bringing about changes in eating behaviour and attitudes to food. This approach ensured that the driving force behind initiatives was the concerns and issues that affected local people. This approach presents health and community professionals with challenges to both practice and policy.

- Although this project was successful, it took time to become established and accepted by local people and professionals. Perhaps the most important finding from this project is that there are no quick fixes and that healthy eating cannot be tackled in isolation.

The Co-operative Wholesale Society is also supporting the development of local community food initiatives. It has produced a guide, *Starting your own community food co-op*\(^{182}\) and also, in partnership with Nottinghamshire County Council and the North

\(^{179}\) *Not Taken for Granted: An evaluation of the Scottish Community Diet Project grant scheme*, Scottish Community Diet Project, August 1998


\(^{182}\) *Starting your own community food co-op*, Co-operative Group, undated
Nottinghamshire Health Authority, funds the community food initiatives through its community food and nutrition fund.\textsuperscript{183}

The conclusions of campaigners and activists working in the field of food based community initiatives appear to be that long-term government support for such schemes is desirable and worthwhile, in terms of the health and other gains which these projects achieve. However, they also point out that funding community projects is not in itself enough. An approach that seeks to tackle the root causes of inequalities (as outlined in early sections of the Social Exclusion chapter as well as below) is essential.\textsuperscript{184, 185}

\textbf{3.6 WORKING HOURS}

\begin{table}[h]
\begin{tabular}{|l|}
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\textbf{Key Question: To what extent do the UK’s typical average weekly working hours affect the time people have available to choose and cook nutritionally balanced meals and what role does Government play in this?} \\
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Issues: People in the UK work longer hours than anywhere else in Europe – an average of 43.6 hours a week compared with 38.4 hours in Belgium, 38.5 hours in Italy, 38.9 hours in Germany, and 39.6 hours in France. The situation has been getting steadily worse. In 1984 (when figures were first collected), 2.8 million people were working more than 48 hours a week. By 1998 this had risen to over 4 million people.\textsuperscript{186}

In addition, the UK government has also introduced an opt-out clause to the EU ceiling to the maximum proposed week. This means that, unlike anywhere else in Europe, individuals are still able to work longer than 48 hours. One in eight employees is currently working more than 48 hours a week and there is anecdotal evidence to suggest that employers pressurise employees to sign the opt-out clause.\textsuperscript{187}

With an average of 50 minutes commuting time to add to the working day (as much as 1.5 hours in London)\textsuperscript{188} it may be the case that people have very little time or inclination left to cook.

In March 2000 the DfEE launched its Work-Life Balance campaign. This encourages employers to introduce flexible working practices which enable their employees to achieve a better balance between work and the rest of their lives. The campaign is based in part on evidence to suggest that employers offering family friendly, flexible working arrangements see results in terms of improved productivity, reduced

\textsuperscript{183} The community food and nutrition fund, Co-operative Group, Nottinghamshire Council and North Nottinghamshire Health Authority, January 2001


\textsuperscript{185} Dowler E, The role of community food initiatives in McCormick (ed), Healthy food policy: on Scotland’s menu? Scottish Council Foundation / Joseph Rowntree Foundation, 2000

\textsuperscript{186} Burnout Britain: long hours, Trades Union Congress Fact Sheet, tuc.org.uk/work-life, accessed 6 March 2001

\textsuperscript{187} Burnout Britain: long hours, Trades Union Congress Fact Sheet, tuc.org.uk/work-life, accessed 6 March 2001

\textsuperscript{188} Transport Statistics Great Britain, DETR, 2000
The three major elements of the campaign are:

- the setting up of Employers for Work-Life Balance, an independent alliance of leading work-life balance employers committed to working in partnership with Government to promote good practice in the business community;
- a £10.5 million Challenge Fund to help employers explore how work-life balance policies can help them deliver goods and services more efficiently and flexibly;
- the publication of "Changing Patterns in a Changing World", a DfEE discussion document. It includes a six-point checklist of the principles of work-life balance and how these can benefit businesses and individuals. The document also includes best practice case studies and plans for further action.

EVALUATION: Evaluation of average UK working hours would ask whether the intense time pressures many people experience has had an impact on people’s cooking habits and practices. Recent years have seen a massive growth in the ready made meals market. If there is a connection, what role could Government play in easing time pressures and what effect might this have on people’s desire and ability to cook? To our knowledge, no work has been carried out on the links between working time policies and cooking habits and of course there are a great many complicating factors. For instance the ‘time rich’ unemployed do not eat any better – on the contrary, their diets are worse. So time is certainly not the only factor. But this area might be one that could repay some examination.

4. PART FOUR: CONCLUSIONS AND NEXT STEPS

As we have emphasised on more than one occasion, this is a mapping exercise, not an in-depth analysis or assessment of the impact of government policies upon people’s eating behaviour.

Our conclusions are therefore sketchy at best. What we try to do by way of a conclusion is not to attempt to prove the evidence base one way or the other, but rather to re-articulate the questions we have asked earlier in the study. We feel that these questions could be useful starting points for future research. We also indicate briefly the extent to which during the course of this study we have uncovered evidence that addresses these questions to some extent.

3. 1 HEALTH PROMOTION

Key Question: do specific diet-related health promotion activities and interventions work and if so, when, how and why?

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3.1.a Policy impacts: General population
- What impact do efforts to promote fruit and vegetable consumption in particular and healthier eating in general have upon people’s eating patterns?
  EVIDENCE: unsure, possibly some evidence that interventions can be helpful

3.1.b Policy impacts: Children
- By making fruit available in schools to schoolchildren a. will the children eat it and b. will it have an impact upon their dietary health?
- Do healthy schools type approaches a. increase awareness of (among other things) healthy eating and b. help to change eating behaviour?
- Do cookery clubs a. promote awareness of healthy eating b. help influence children’s eating behaviour?
- Do breakfast clubs improve children’s nutritional health?
- What evidence is there to support the idea that standards in the provision of school meals improve the nutritional status of schoolchildren?
  EVIDENCE: reasonable evidence that school based interventions are effective; less evidence uncovered regarding the school meals issue. A closer examination of the role of school meals in better nutrition could be helpful.

3.1.c Policy impacts: Pregnancy, breastfeeding and infant nutrition
- What effect do efforts to promote breastfeeding have upon the feeding choices of mothers with infants?
- What impact does Sure Start have upon people’s eating habits?
- What impact has the Welfare Foods Scheme had upon the diets of women and their young children?
- To what extent has the campaign to promote folic acid intake been successful among women who are, or who are likely to become, pregnant?
  EVIDENCE: some evidence (albeit patchy) that interventions can be effective. The Welfare Foods Scheme has been difficult to evaluate because it has been running so long.

3.1.d Other interventions
- Were attempts to improve the dietary intake of the Welsh population effective?
- Were Government efforts to improve the diets of the population in the Scandinavian countries effective and if so what lessons can be learnt?
  EVIDENCE: evidence that these campaigns had some effect; useful lessons to be learnt.

3.2 EDUCATION AND TRAINING
Key question: To what extent have government policies influenced people’s ability and need to cook and what implications does this have for the nation’s diet?

3.2.a Cooking and the school curriculum
- What impact does the school curriculum have upon children’s eating awareness and habits? What initiatives are underway to improve children’s cooking skills and what impact have they had?
EVIDENCE: no evidence-based work has been done to explore the links between the curriculum and cooking skills but some US evidence that food-related intervention can be beneficial, especially if the wider context is taken into account. More research needed.

3.2.b Cooking skills in the adult population
• What evidence is there to support the idea that cookery skills training improves peoples’ awareness of healthy food and ultimately their eating behaviour and what action can government take to improve people’s skills?

EVIDENCE: Some limited evidence that cooking skills training can be beneficial. More research needed.

3.2.c Ready made meals, the food industry and the role of Government
• What impact has the proliferation of ready made meals had upon people’s need to cook, and what role has government played in this growth?

EVIDENCE: Little or no evidence available. Further research would be useful.

3.3 FOOD ADVERTISING AND LABELLING
Key questions: Is there any evidence to show that a) advertising of certain food stuffs affects the food choices we make and b) that our current exposure to food advertising has a negative impact upon our diets and subsequent health? Is there any evidence to show that better labelling of the nutritional and other content of foods affects our purchasing decisions and if so, what implications does this have for our health? Is there any evidence to show that by limiting children’s exposure to junk food advertising, there is a subsequent improvement in the quality of their diets?

3.3.a Advertising – the impacts
• What impact does advertising have upon people’s diets, particularly that of children, and what role do government policies play here?

3.3.b Food labelling
• Do food labels influence people’s food choices, and what is the role of Government here?

EVIDENCE: opinion varies regarding the impact both of advertising and labelling on food choice. There are indications that well-designed advertising may increase children’s fruit and vegetable consumption; this may imply that more generally, their food choices are susceptible to influence, either positively or negatively. There is little active government policy in this area.
3.4 AGRICULTURE AND THE COMMON AGRICULTURAL POLICY

Question: to what extent do the subsidy and support structures of the CAP influence the type of food we eat?

3.4.a Meat and poultry
- Do agricultural policies promote or discourage the consumption of meat and poultry?

3.4.b Dairy
- How does the subsidy and support structure affect milk consumption and the fat content of the milk supplied?

3.4.c Fruit and vegetables
- Do agricultural policies promote or discourage the consumption of more fruit and vegetables?

3.4.d Sugar
- To what extent do agricultural policies promote excessive consumption of sugar?

3.4.e Overall evaluation
- What is the overall impact of the CAP and other agricultural policies upon people’s diets?

EVIDENCE: some evidence that agricultural policies could have an impact on diet, but the issue is highly complex and more work is needed. There may be potential for health gain in this area.

3.5 SOCIAL EXCLUSION AND LOW INCOME

Key Questions: Which government policies affect the ability of people on low incomes to access and afford healthier foods? What evidence is there to support a link between policy and impact? Do policies to improve access to and availability and affordability of fruit, vegetables and healthy foods by socially excluded groups affect their food habits and patterns of consumption? What strategic policies is government putting in place to tackle the issue of social exclusion with regard to food and health?

3.5.a Food and its affordability
- Does the way certain foods are priced affect people’s food purchasing decisions?
- Do benefits and income support policies affect people’s ability to afford a healthy diet?

EVIDENCE: reasonable evidence that healthy food is not always affordable for low-income groups, but less to show that raising incomes thereby leads to better diets.

3.5.b Access to shops in low-income areas
- What impact does the retail planning system have upon socially excluded groups’ ability to access healthier foods?
• How do government policies regarding the regulation of supermarket power impact upon people’s ability to access and afford healthy food? To what extent do government policies regarding supermarket location affect peoples’ diets?

• What impacts do community-based food initiatives have upon a. accessibility and affordability of food and b. medium-long term changes in participants’ eating habits? What Government policies help and/or hinder the development of such initiatives?

• What effect has the work of the Social Exclusion Unit, particularly the PAT 13 team (shops) had upon government policy and how has this influenced access to healthy food?

EVIDENCE: some evidence of lack of access but the argument is complex and is about more than physical access.

3.5.c Concentration and competition: the big retailers

• How do government policies regarding the regulation of supermarket power impact upon people’s ability to access and afford healthy food?

• To what extent do government policies regarding supermarket location affect peoples’ diets?

EVIDENCE: evidence divided – more work is needed which takes broader social and environmental issues into account.

3.5.d Community initiatives

• What impacts do community-based food initiatives have upon a. accessibility and affordability of food and b. medium-long term changes in participants’ eating habits? What Government policies help and/or hinder the development of such initiatives?

EVIDENCE: mainly anecdotal but nevertheless valuable evidence that impact of community initiatives are often positive but that the policy context (e.g. funding) is not always supportive.

3.6 WORKING HOURS

Key Question: To what extent do the UK’s typical average weekly working hours affect the time people have available to choose and cook nutritionally balanced meals and what role does Government play in this?

EVIDENCE: no work at all in this area has been uncovered. This question would merit further investigation.

CONCLUDING REMARKS

In this report, each policy area has been considered individually. This neglects the possibility that there could be synergies between different policies, e.g. population-level education on nutrition and direct provision (e.g. fruit in schools). Conversely, there could be possible overlaps, meaning that the combination of two policies may have less effect than the sum of each separately.
We have considered evidence concerning which policies may be considered “effective”, in other words, that they make a difference. However this raises another question, which is to ask how much difference they make. In some cases the effect may be quite small compared with the effort expended. If so, this may make it difficult to generalise good practice widely enough.

In some cases a situation may get worse despite the operation of effective government policies because the underlying situation is worsening, e.g. the factors responsible for the increase in obesity. So, although our focus here is on government policies at various levels, these operate within a context. One conclusion could be that a similar exercise needs to be applied to each relevant industry, and to consumption patterns.