Review of the Scottish Diet Action Plan

Progress and Impacts 1996–2005

REVIEW PANEL

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Membership of the Scottish Diet Action Plan (SDAP) review panel

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Executive summary

The purpose of this policy review was to examine the progress that has been made in the implementation of the Scottish Diet Action Plan (SDAP) since 1996 – what has been achieved and what remains to be done – to consider its impacts to date, and to identify strategic priorities for Scotland’s future policy on improving the Scottish diet.

An external and independent review panel was appointed by Health Scotland in July 2005 and asked to report to the Scottish Food and Health Council (SFHC), chaired by the Deputy Minister for Health and Community Care. The panel sought evidence from bodies listed in the 1996 SDAP and others who were subsequently identified, attended meetings, held six days of hearings and conducted two preliminary feedback sessions with stakeholders. This report summarises the panel’s main findings and conclusions. Further documents, commissioned reports and written submissions are available in the Evaluation section of the Health Scotland website (www.healthscotland.com).

The SDAP was a timely policy intervention in 1996, which was endorsed by the new devolved government when it took office in 1999. In the mid-1990s, Scotland had a poor record of diet-related ill-health, and the aim of the SDAP dietary targets was to reduce diet-related mortality and morbidity in Scotland, particularly that related to illnesses such as heart disease, cancer and diabetes and to being overweight/obese. In this way, the SDAP dietary targets were, and remain, valid and laudable in their public health intent and sit comfortably with Scotland’s other social, economic and political goals.

The panel evaluated the progress made in the implementation of the SDAP recommendations over the last 10 years. This was based on evidence supplied to the panel by a large number of sources and stakeholders. Examples in which substantial progress has been made include:

- The appointment of a national level Food and Health Coordinator within the Scottish Executive with appropriate responsibility (to provide national level leadership to drive SDAP implementation and encourage cross-government working).
- The creation of alliances on food and health (to increase policy leverage).
- The formation of the Scottish Community Diet Project (SCDP) within the Scottish Consumer Council (to support community level food initiatives, especially in low-income areas/groups).
- The delivery of dietary information to expectant mothers (to improve infant and neonatal health).
- Support for breastfeeding by appropriately trained health professionals (to improve infant diet and child health).
- The development of health promoting schools and a whole school approach to healthy eating, catering and supply (to improve dietary education and the provision of healthy food in schools).
• The provision of free fruit in schools (to intervene directly in children’s diets).
• The setting of nutritional standards for school meals (to provide a lead in public sector catering).
• The distribution of nutritional advice to every household in Scotland (to empower consumers).
• The development of health education campaigns and resources on healthy eating (to raise awareness about healthy eating messages and support health professionals).
• The breeding and selling of leaner livestock (to reduce fat in the diet).

The panel highlighted four particular areas of success: an improvement in breastfeeding rates; an improvement in food and diet in schools; support for community food initiatives; and the production of health education resources and marketing campaigns. Rates of initiating and maintaining breastfeeding have risen sharply in all social classes. Breastfeeding rates in Scotland are now above those in England and Wales, with 70% of Scottish mothers now reported to initiate breastfeeding, compared with 55% of mothers in 1995. There is also evidence of improved outcomes from the introduction of free fruit in schools and from guidance on the nutritional content of school meals. Systematic support for community food initiatives has helped to give a voice to issues regarding food inequalities at the national level and, with small-scale financial investment, has helped to raise skills, access and consumption for some in low-income areas. However, overall, the reach and population impact of these initiatives appears small.

The initiatives that have been effective appear to share some common features of success, which provide important lessons for the future:

• Longevity: these initiatives often started before the SDAP was implemented or were part of the early implementation actions that were taken, meaning that change has been achieved over a longer time period. Many of the other SDAP recommendations were not implemented until after 2001 with the appointment of the national Food and Health Coordinator.
• They have benefited from a sustained and increasing commitment of resources to the achievement of defined objectives.
• Their delivery involved action by a defined body of professionals who could take responsibility for driving action and change.
• Local action has been supported at national level by communications campaigns to increase public awareness and help shift public attitudes.
• Regulatory and legislative actions have been used to consolidate and mainstream changes and to build consumer demand at an institutional level through public procurement systems.

There were a number of action areas in which implementation was judged by the panel to be minimal according to the evidence available, and which suggest that the food supply chain was not fully engaged. These include:

• reducing the production of dairy fat and finding alternative non-food markets for butter fat
• providing basic training in nutrition for those working in the food industry and the hospitality management curriculum
• increasing consumer demand for fruit and vegetables via the catering service and primary producers.
Executive summary

However, despite the considerable progress that has been made in implementing the SDAP recommendations, overall the action taken has not had a significant impact on population trends in food consumption and nutrient intakes in Scotland over the last 10 years. A separate report from the Food Standards Agency Scotland (FSAS), as well as the panel’s own analysis, shows that the dietary targets set for 2005 are overwhelmingly not being achieved.

The only dietary target in which the trends are moving in the right direction (but where change has not been as fast as anticipated) is the level of intake of total fat as a percentage of food energy: this has fallen from around 40% to an average of about 38%, whereas the target was to reduce this to no more than 35%.

There has been no change in other food and nutrient intakes:

- Daily consumption of fruit and vegetables: average intakes remain at around 246 g a day, whereas the target was to achieve a minimum of 400 g per person per day.
- Saturated fatty acids: average intakes have fallen from about 15.6% to 15.2% of food energy, whereas the target was to reduce this to no more than 11% of food energy.
- Total complex carbohydrates: the target was to increase average intakes by 25% but intakes have remained at around 141 g per person per week.
- Weekly consumption of oil-rich fish: the target was to double consumption from 44 g per person per week to 88 g per person per week, but consumption has remained at around 34 g.
- Consumption of breakfast cereals: the target was to double consumption from 18 g per person per day, but consumption levels have remained unchanged.

Of greatest concern are those areas in which the trends are moving in the wrong direction:

- Intakes of non-milk extrinsic (NME) sugars (those implicated in tooth decay) have risen rather than being held constant (target for adults) or being reduced (target for children).
- Potato consumption has fallen by 25% instead of increasing by 25%.
- Bread consumption has fallen by 12% instead of increasing by 45%, with the consumption of brown/wholemeal bread falling by 25%.
- Overall, the consumption levels of the ‘healthy’ foods that were targeted to increase are significantly lower in the most deprived groups of the population.

Trends in Scotland’s food consumption and nutrient intake in the last 10 years have, in part, been shaped by macroeconomic changes in food retailing and catering and related shifts in eating patterns. For example, the rising trend in sugar intakes is linked to changing patterns of eating and drinking outside the home in Scotland, where there has been a worrying rise in the consumption of soft drinks, snacks and

In practice, reducing the proportion of food energy obtained from fat is possible by increasing intakes of complex carbohydrates, sugars or protein – all of which can provide energy in the diet. Of these, the most desired change is an increase in the energy obtained from complex carbohydrates. The small decrease in the proportion of food energy from fat shown here should be seen in the context of the increase in the proportion of energy from sugars and the lack of change in the intake of complex carbohydrates that was also noted.
confectionery in recent years. Soft drinks, confectionery and lager/beer are the three greatest contributors to sugar intakes.

The panel considered a number of possible reasons why the dietary targets have not been met despite considerable success in implementing the SDAP recommendations. The most plausible explanations include:

- The direction required to achieve the level of change defined by the dietary targets underestimated the impact of inequalities.
- Resources and initiatives have been spread too thinly across a broad range of actions rather than focusing on achieving population-level impact within a few priority areas.
- The broad range of actions recommended was not transparently or consistently linked to the narrow range of food and nutrient targets identified.
- The SDAP has adopted a wholly consensual partnership approach to ‘working with’ the food industry and thus underplayed the powerful role of the food supply chain in shaping food content, access, availability and consumer demand over the last 10 years, such as the period of rapid restructuring of the food industry or the undermining of health messages by powerful marketing and advertising of foods and drinks. The SDAP has not deployed the full set of policy tools available, most notably those of exercising regulatory and legislative powers of government to control the food supply chain and help create demand.
- The areas where little or no progress has been made with implementation suggest that, until the recent public debate about rapidly rising obesity, the food supply chain has not been fully engaged with the need to change. Institutions and leadership across the supply chain have not been aligned effectively.
- At the regional level, SDAP implementation and prioritisation has appeared uneven, accountability for local implementation has not been clear and linkages with other relevant policy strands have been inadequate.

Each of the above reasons provides a plausible explanation for why the overall changes sought by the SDAP have not been achieved, although none alone is a sufficient explanation. There is no single, simple reason for the SDAP targets not being met. The panel concluded that, although some advances in thinking and practice have been made and some initiatives have been inspiring as well as effective, the total shift required and sought by the SDAP has not yet been realised. There are some important lessons for future policy:

- To achieve population-level impact, a more focused and prioritised approach to policy and implementation may prove to be more effective than a broad range, or ‘scattergun’, of initiatives.
- Given the complexity of modern food systems and their dynamics, action needs to be coordinated across all levels of food governance, from local to international level.
- The actions need to be more plausibly linked to policy outcomes and targets and founded upon the overarching strategic themes or ‘directions of travel’ with which all stakeholders (state, supply chain and consumers) can engage.
- Lines of accountability, monitoring and performance reporting on policy implementation need to be improved, using a wider range of shared intermediate outcomes to help evaluate progress towards targets across sectors.
- Greater use of regulatory powers and incentives can be appropriate and can be used to set goals for the food supply chain as well as help build consumer demand.
Executive summary

If Scotland’s current dietary trends continue, they will remain a contributing factor to its poor relative position on health within the UK and Western Europe, with a toll of unnecessary premature death, long-term illness and dental ill-health. A legacy of rising levels of overweight and obesity among both adults and children is also emerging. Food and nutrition are not the only factors involved, but they are important and malleable elements. The case for renewed policy focus and intervention is strong. In Scotland, childhood obesity, for instance, is rising rapidly, with levels among younger and older children double what might have been expected on the basis of data for the UK as a whole.

The panel concluded that the direction of policy on food, diet and nutrition needs a serious rethink if the necessary step change is to be achieved. The panel considered how Scotland might rise to this challenge, drawing on lessons from policy implementation over the past 10 years as well as international experience. A patchwork of localised stand-alone initiatives is unlikely to work. The challenge is to frame policy to address a complex, multicausal problem in a cross-cutting way, to focus action on a few priorities and to identify policy measures that will be effective in tackling these priorities. If change is to be achieved across the entire food system, it is not a task that can be left to others – everyone has to be engaged, with concerted action at national, UK, European and international level.

To provide this shared direction of travel, the panel proposes four overarching strategic themes to guide Scotland’s policy in the future. For each of these themes, examples are provided to illustrate specific actions that might be taken. These need to be debated, refined and widely ‘owned’ if they are to be effective:

- **Closer integration between the policy goals of improving Scotland’s diet-related ill-health and those of social justice, sustainable development and agriculture.** Over the coming years, sustainability criteria will become more important in diet and health improvement policy. The quality of Scotland’s food production and supply will be judged not only in economic or health terms but also in terms of its impact on the environment on which the food supply and lifestyles depend. Scotland should anticipate this change and transform the SDAP into a new Sustainable Food and Health Policy that brings together and attempts to harmonise food production, supply and consumption to meet the policy goals of sustainability and public health.

- **The centrality of the principle of equality in this proposed new Sustainable Food and Health Policy.** In the mid-1990s, the SDAP targets were set for whole populations, even though it was clearly recognised that food consumption patterns are strongly influenced by deprivation, with more inadequate and/or inappropriate diets in low-income areas and poorer households. The challenge today is not whether, but how, to express food-related targets for Scotland in terms of equality of outcomes. Since 2000, Scottish Executive policy has emphasised the priority attached to improving the health of ethnic minority groups (Fair For All, 2001, 2002), as well as reducing inequalities related to poverty and deprivation. The 2004 spending review (Closing the Opportunity Gap) reframed its health improvement targets in terms of increasing the rate of improvement for the most deprived communities, as measured by the Scottish Index of Multiple Deprivation (SIMD). The new Sustainable Food and Health Policy must be actively linked to this policy focus of reducing inequalities in health.

- **The need to re-establish the grounds for engagement with the food industry in Scotland so that public health and sustainability are the over-riding drivers for**
food production and supply. In a world where vast sums of money are spent trying to frame consumer demand for products that have little health value, it is obvious that the public health world must engage with the food supply chain to ensure that health is central, not peripheral, to current food and drink strategies and supply chain dynamics. So pervasive is poor diet, that reliance on individual choice as the prime ideology in shaping food supply is no longer an adequate policy or ideology. If Scotland’s diet and food culture is to change, the quality and nutritional value of the food grown, processed, retailed and catered in Scotland will have to alter. The ‘push’, as well as ‘pull’, will have to change so that all parties – state, supply chain and civil society – are moving in the same direction.

- **The need to develop new multilevel governance structures, institutions and leadership.** There is, in principle, already a strong policy commitment to food-related health improvement but this needs to be renewed across all levels and sectors/departments. Where necessary, there will have to be a political appetite for legislative support. This has worked for breastfeeding and tobacco control, sending strong signals that health has to be the priority. Such leadership is needed, both in other areas and at all levels of governance, from the community level to the international (especially European) level. Whether the vehicles for change are legislative or voluntary measures, and whether aiming for slow, incremental or faster step change, food alliances need to be supported by leadership at the top political level and right across the relevant professions and organisations. National and local health improvement strategies require clear signals from government, together with engagement at all levels.

The panel judges that Scotland’s current national dietary profile is still unacceptable and that the pace of improvement is too slow and patchy at best. With obesity levels rising fast, the case for radical or step change is strong. There is much to build on: a strong commitment to cross-government action to improve health and sustainability, as well as a strong political will to achieve economic, social and health improvements in a devolved Scotland. Forging alliances across government and civil society, and at local, national and international level, is essential.

To shift the entire food system in a more health enhancing and sustainable direction will take time. The radical shift justified by the epidemiology and evidence reviewed by the panel will not be delivered quickly and needs to bring in all citizens, not just the more affluent. The task may appear daunting, but the panel believes that Scotland has much in its favour, not least its political room for manoeuvre. In an interconnected world, Scotland has the opportunity to work with other small nations in Europe on food and nutrition policy, building on the lessons learned over the past 10 years and acknowledging its failures while retaining a commitment to tackle the real problems that exist.
The panel wishes to send its sincere thanks to the many people and organisations who contributed to its work: those behind the scenes; everyone who responded to its request for submissions and thoughts; all who came to hearings; people it met on other occasions or who wrote, emailed and called; people who tried to meet us – many, many people! This effort and desire to contribute to the review was hugely appreciated.

In particular, the panel wishes to place on the record its sincere thanks to Drs Cathy Higginson and Erica Wimbush, and to Jenny Shiell and Kate Barlow, the secretariat team at Health Scotland. Deep thanks also go to Dr Helen Crawley who so ably helped in the production of the report, adding and amending drafts with patience, skill and erudition. These five people have been a remarkable team. Officially the panel’s ‘support’, in reality, they have been partners in the task, not only keeping matters on track but also providing ideas and information and helping us reach out to as many people and organisations as possible. Their being so good to work with has made a daunting, intense and long task much more pleasurable. Responsibility for this report nevertheless remains the panel’s.

The panel is also very grateful to all those in the SFHC and, particularly, Gillian Kynoch, Scotland’s first Food and Health Coordinator, and those who suggested that the review be conducted. It is both a privilege and a responsibility to be asked to consider what an entire country is doing about such a sensitive but vital issue as its food and diet-related health. The panel was impressed by the dedication and rich experience of so many people it met and from whom it took evidence. It hopes that they, and others, agree that sometimes a pause for debate, a consultation with a map and a reflection about purpose can refocus the direction of travel and help what is undoubtedly a long journey make more meaningful progress. The panel hopes that this report can be used to focus that debate and that the themes and suggestions offered are of use in that process.

Tim Lang  
Elizabeth Dowler  
David J. Hunter
### Acronyms

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<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>ASH</td>
<td>Action on Smoking and Health</td>
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<td>BMI</td>
<td>body mass index</td>
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<td>CAP</td>
<td>Common Agricultural Policy (of the European Union)</td>
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<td>CFP</td>
<td>Common Fisheries Policy (of the European Union)</td>
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<td>CoSLA</td>
<td>Convention of Scottish Local Authorities</td>
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<td>CPPs</td>
<td>community planning partnerships</td>
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<td>DG</td>
<td>Directorate General (Departments of the European Commission)</td>
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<td>DPAS</td>
<td>Diet, Physical Activity and Health Strategy (of the WHO)</td>
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<td>DEFFRA</td>
<td>Department for the Environment, Food and Rural Affairs (England)</td>
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<td>EFS</td>
<td>Expenditure and Food Survey (replaced NFS and the Family Expenditure Survey)</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization (of the United Nations)</td>
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<td>SFHC</td>
<td>Scottish Food and Health Council</td>
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<td>FSA</td>
<td>Food Standards Agency</td>
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<td>FSAS</td>
<td>Food Standards Agency Scotland</td>
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<td>GDAs</td>
<td>guideline daily amounts</td>
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<td>HACCP</td>
<td>Hazard Analysis Critical Control Point</td>
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<td>HEBS</td>
<td>Health Education Board for Scotland (replaced by Health Scotland in 2003)</td>
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<td>HMIE</td>
<td>Her Majesty’s Inspectorate of Education</td>
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<td>JHIP</td>
<td>joint health improvement plan</td>
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<td>NDNS</td>
<td>National Diet and Nutrition Survey (of the Food Standards Agency)</td>
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<td>NFS</td>
<td>National Food Survey (discontinued since 2001)</td>
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<td>NFU</td>
<td>National Farmers Union</td>
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<td>NHS</td>
<td>National Health Service</td>
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<td>NME</td>
<td>non-milk extrinsic sugars (sugars extracted from the structure of plants, which can damage teeth)</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>ROA</td>
<td>regeneration outcome agreement</td>
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<td>SCDP</td>
<td>Scottish Community Diet Project (within the Scottish Consumer Council)</td>
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<td>SDAP</td>
<td>Scottish Diet Action Plan (created in 1996)</td>
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<td>SEED</td>
<td>Scottish Executive Education Department</td>
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<td>SEERAD</td>
<td>Scottish Executive Environment and Rural Affairs Department</td>
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<td>Scottish Food and Health Council</td>
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<td>SHS</td>
<td>Scottish Health Survey</td>
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<td>SIMD</td>
<td>Scottish Index of Multiple Deprivation</td>
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<td>SJBII</td>
<td>Scottish Joint Breastfeeding Initiative</td>
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<td>SNDRi</td>
<td>Scottish Nutrition and Diet Resources Initiative</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>WHO</td>
<td>World Health Organization (of the United Nations)</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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1 Introduction

1.1 WHY A REVIEW?

In July 1996, *Eating for Health: A Diet Action Plan for Scotland*, commonly known as the Scottish Diet Action Plan (SDAP), was published by the Scottish Office. Launching the plan, the then Minister of State, Lord James Douglas-Hamilton, acknowledged that changes to eating habits, developed over many years, would not be accomplished overnight, but commended the action plan as ‘a blueprint for action over a decade which had the potential to begin a process that would result in better health for all’. Its recommendations have been the basis on which food and health action in Scotland has been shaped over the past 10 years. In 2004, the Scottish Executive published *Eating for Health: Meeting the Challenge*, a strategic framework to guide continued implementation of the SDAP. This outlined the coordinated action, improved communication and leadership needed to take forward the SDAP as the food and health component of the Scottish Executive’s broader policy for health improvement. One of the action points put forward to meet the continued challenge of improving diet-related health in Scotland was to review the progress made to date in implementing SDAP recommendations and achieving the targets set for 2005.

An independent policy review was therefore commissioned in July 2005 by Health Scotland, reporting to the Scottish Food and Health Council (SFHC). The aim of the review was to examine the progress and impacts made, and the successes and challenges that have arisen from implementing the recommendations made in the original 1996 SDAP, and to do so in the light of subsequent developments at policy and institutional levels. On the basis of this assessment, the review panel was also tasked with identifying strategic priorities for Scotland’s future policy on improving the Scottish diet.

1.2 THE SDAP REVIEW PANEL

The review of the SDAP was conducted by a three-member expert panel: Professor Tim Lang (Chair), Dr Elizabeth Dowler and Professor David J. Hunter. The panel was supported by a Public Health Nutritionist acting as writer, Dr Helen Crawley, and a secretariat comprising Dr Cathy Higginson, Dr Erica Wimbush, Jenny Shiell and Kate Barlow of Health Scotland.

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4 Scottish Executive (2004), *Eating for Health: Meeting the Challenge*, Scottish Executive, Edinburgh
Members of the review panel were selected by Health Scotland on the basis of two key criteria:

- **To be independent and external.** None of the three panel members has been involved in the policy-making or implementation process in Scotland. In the formal sense, they are therefore not ‘an interested party’. All members work outside Scotland.
- **To bring suitable expertise.** Panel members were chosen who could bring authoritative, influential and credible skills and experience to the review of the substantive areas proposed. The panel’s skills are in food policy, public health nutrition/social policy and public health policy respectively.

### 1.3 TERMS OF REFERENCE

The review panel’s agreed terms of reference were:

- To review progress in the implementation of the SDAP and to consider whether implementation locally and nationally has been appropriate and effective in addressing the SDAP action points.
- To review the impacts and outcomes of the implementation of the SDAP and the extent to which the actions identified have been fulfilled and the targets achieved.
- To identify the strategic areas of action required to strengthen the policy goal of improving the Scottish diet and reducing inequalities related to food access, food choice, diet and weight.

### 1.4 THE REVIEW PROCESS

The policy review process itself is innovative and a first in Scotland, if not the UK. The SDAP review is the first in a series of reviews of health improvement policy in Scotland coordinated by Health Scotland. The approach adopted was based on the methodology used for the evaluation of Australia’s National Mental Health Strategy (published by the Australian government in 1997), but adapted to the timescale of the SDAP, the policy area under review and the circumstances in Scotland.

Following the Australian model, the written evidence initially identified as being necessary for the review panel to conduct the evaluation process comprised the following (see Figure 1):

- **Review of existing data and population trends** – overview reports were commissioned on the dietary targets, food retailing and findings from evaluations of food and health initiatives across Scotland between 1996 and 2005.
- **Community level perspectives on dietary change** – two papers were commissioned: an overview of findings from the Twenty-07 cohort study, which spans the years

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from 1992 to 2002 and involves studies of two localities; and qualitative research to capture consumer perceptions of dietary change over the last 10 years and the factors driving this change.

- **Implementation of the SDAP** – this involved: a survey of organisations involved in the implementation of the SDAP action points to assess the extent to which they had been implemented; further written submissions invited from a subsample of these respondents to elicit a more in-depth, analytical perspective on the change process; and a survey of a wider group of stakeholders to assess their opinions on the achievement of SDAP outcomes and future priorities.

- **International expert commentary** – a report commissioned to provide an international dimension to the assessment of the progress of the SDAP in Scotland compared with other countries and to provide knowledge from other countries.

All of the written material detailed above is available on the Health Scotland website (www.healthscotland.com).

The review process combined the evidence received by the review panel and a process of engagement with the people involved in the development and implementation of the policy. The panel spoke with nearly 70 people over six days of ‘hearings’ – all the time involving a wider circle of people in the review process:

- Day 1 – the changing policy context; review of existing data
- Day 2 – the supply chain – retailers, producers, caterers
- Day 3 – public sector implementation including schools, NHS, community, breastfeeding
- Day 4 – communications (national, local); international expert commentary
- Day 5 – academic research; feedback to Scottish Executive
- Day 6 – public health; inequalities and social justice; sustainable development; local government and community planning.

The key questions addressed by the panel during these hearings were:

- What has been achieved in the last 10 years?
- What are the problems? What are the solutions?
- What do you think would really make a difference?

**Figure 1** The evidence used for the SDAP review.
CONDUCTING THE REVIEW

In conducting the review and fulfilling its terms of reference, the panel sought to provide an opportunity for all those involved in food, diet and health in Scotland to undertake critical reflection, given the substantial amount of work in progress. During the review process, the panel was struck by the commitment and good intentions of stakeholders in providing evidence and advice to decision makers on how best to develop Scotland’s food and health agenda. The panel has been impressed by the goodwill and enthusiasm for harnessing Scottish policy thinking and building on the many successful initiatives already in place that is evident across diverse positions and bodies. This goodwill, resolve and networking are seen as crucial ingredients in successful implementation.

The majority of stakeholders who engaged with the panel were clearly motivated and willing to take action to improve diet and food access for the good of improving Scotland’s health and reducing diet-related ill-health. There was also a clear desire for the overt championing of the economic, moral and public health arguments needed to deliver the change in Scotland’s health and for Scotland’s government to intervene to improve diet. Those who contributed evidence generally regarded this as an appropriate role for government. Any differences in view were related to how best to deliver the policy goal. The argument that people should be free to eat what they choose and that the role of government in dietary change should be confined to the provision of information and education to enable ‘informed choice’ was not explicitly presented to the panel. The challenge is to generate popular support for government interventions when they might appear to run counter to prevailing individual freedoms. From evidence so far, this has been achieved for the introduction of the smoking ban in Scotland (although this is yet to be fully evaluated). However, food and diet as a whole is a larger and more complex issue.

The panel also found much to applaud in the Scottish Executive’s new strategic framework, Eating for Health: Meeting the Challenge, and in how the Health Department is holding up a mirror to its past and current work to learn and gain insights into how best to proceed to achieve its ambitious goals. The panel has been heartened by the shared commitment to tackling food across the Scottish Executive, as part of its cross-cutting health improvement challenge policy, demonstrated by the 2004 strategic framework. Specific mention should also be made of the substantial contribution made by Gillian Kynoch, the Scottish Food and Health Coordinator, in accelerating the speed of development and implementation of food and health policy in post-devolution Scotland and in the breadth of progress made.

Despite this strategic approach, senior level commitment, substantial investments and widespread goodwill, and resolve and enthusiasm among stakeholders, the panel also found clear evidence of Scotland’s lack of progress in delivering the level of change required by the core SDAP dietary targets. The need to debate why this has happened and to learn from this assessment was a key focus of the panel’s review discussions, starting with the two preliminary feedback events with stakeholders that were held before the preparation of the final report and its subsequent publication.

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6 Meeting of the SDAP panel with the Food and Health Council, 24 March 2006, held at the CoSLA Conference Centre, Edinburgh; and meeting with approximately 70 stakeholders, 24 April 2006, held at Our Dynamic Earth, Edinburgh
Although this report is primarily concerned with reviewing the past 10 years (1996–2005), the review panel was also tasked with helping Scotland chart directions for the future. Questions about the best direction for future policy abounded during the year long review process. Whatever the direction, are there appropriate institutions, supply chains and civil society alliances to deliver that future? Is it meaningful to talk of one future, which will appeal to all sections of Scottish society? How might any policy package work at local, national and international levels, both horizontally and vertically? These are questions for Scotland’s food and health governance that deserve further public debate. This report is intended to help start that debate and contribute to it.

1.6 PLAN OF THE REPORT

The report is divided into five further sections. Section 2 looks at the evolution of the SDAP and its further development within the post-devolution context of a wider cross-cutting policy on health improvement. Section 3 examines how the world has changed over the last 10 years, since the publication of the SDAP, and the implications of this for SDAP implementation and its impacts on diet, Scottish food culture and health. Section 4 evaluates the progress that has been made in implementing the SDAP recommendations and reaching the dietary targets, highlighting key areas of success and the lessons that these offer. It also considers four possible explanations for the failure to achieve the targets and what we can learn from this for the future. In Section 5, the panel offers some thoughts on framing a future sustainable food and health policy for Scotland, drawing on lessons from policy implementation over the past 10 years in Scotland and from international experience on implementing nutrition and health policies. In the final section, four overarching strategic themes are set out to guide the development of a sustainable food and health policy for the future, with illustrative actions for each to fuel further discussion.
Food and health policy sits at the intersection of many core societal goals. Actions taken in other areas, such as competition law, education or transport, can have an impact on the social and cultural dimensions of food, patterns of food and nutrient consumption and, thus, health. In practice, many elements of social and economic policy impact on food consumption and diet. However, policy intervention on food is not something that is undertaken lightly. Food is an issue that raises passions. Not without good reason has it been described as an intimate commodity. We all eat it and its impacts affect us individually and as a population. A network of social relationships is woven into the workings of the food economy. People grow, process, transport, cook and sell food, as well as consume it. Its impact right along the supply chain brings into play not only nutritional challenges to policy but also political, economic, technological and environmental challenges. Understanding the impact of food on Scotland’s health requires an understanding of whether the Scottish diet includes the right mix of nutrients, as well as an understanding of Scotland’s culture, confidence and well-being.

The challenge for policy makers is how to turn an understanding of the complex world of food into policy frameworks that will deliver appropriate societal goals and which can be implemented. The panel was reminded many times of how Scotland’s social policy of aiming for greater equality has health implications. But this is complex policy terrain. Above a basic income level, societies that are more equal tend to be more healthy, and there is also good evidence that health improves with income and education; however, income and wealth does not appear to provide a full explanation for Scotland’s persistent diet-related ill-health compared with England. Despite this complexity, policy on food and diet is an important element of Scotland’s wider aspiration for social justice; aiming for a more truly healthy society implies health for all, not just for some groups within society. Good health is also a prerequisite for reaching economic potential. Ill-health does not just ‘cost’ the economy, taking a significant proportion of gross domestic product for treatment and lost working days. It also, in the case of degenerative diseases such as diabetes or heart disease, costs...
society. Personal fulfilment is lost, deserved retirement is not enjoyed and economic potential and human happiness are thwarted. Policy strategies aimed directly at radically improving Scotland’s diet and health were put into clear focus in the early 1990s, from which point the landscape of food and health policy development has radically altered both throughout Scotland and internationally.

2.1 THE SCOTTISH DIET (1993)

In the early 1990s, ministers were fully aware of the significance of the evidence on the impact of diet on health. For example, expert committees had been warning about coronary heart disease rates in the UK since the mid-1970s. The UK policy response laid considerable emphasis on providing health education messages to consumers and relying on self-interest to direct informed choices in the market place. In key respects, the resulting health education policy conveyed the view that consumers are the primary point of intervention, shaping demand and thus influencing food markets.

In January 1992, the Chief Medical Officer for Scotland established a working group, chaired by Professor Philip James, with the remit to survey the current diet of the Scottish people, assess the relevance of diet to health, make proposals, if appropriate, for improvements to the Scottish diet and assess their likely impact. The working group was primarily made up of academics in health and nutrition, with representation from consumers and the retail sector. To complete this review, they drew on evidence from national and local studies and reviewed the literature and any unpublished studies of relevance. In addition, five new surveys were conducted to assess the nutrition and dietary patterns of Scotland; the food purchasing habits of different areas of Scotland; consumer attitudes to dietary change in Scotland; current local dietetic activity; and breastfeeding patterns in Scotland.

The working group, chaired by Professor Philip James, reported its review of the Scottish diet to Scottish Office ministers in 1993 and highlighted the need for a substantial change in Scotland’s consumption of food and nutrients to bring about significant and measurable population health benefits. The range of recommendations and quantified targets signified the detail and scale of the change that the working group believed would be needed to get Scotland’s diet on the right track. The government accepted the evidence presented in the ‘James Report’ as an authoritative base from which to proceed to action planning.

For Scotland’s dietary health to improve, a wholesale, if gradual, change in Scotland’s food system would have to be instituted. The James Report proposed a systemic approach to food and health policy in Scotland, insisting that health was everyone’s business not just consumers’ or health educators’. The significance and legacy of the James Report should not be underestimated. Although not questioning market
economics, the James Report subtly, but importantly, shifted the emphasis and analysis away from a reliance on information and educational intervention alone, arguing that consumers could not be expected to be the main drivers of dietary change. For instance, the report acknowledged the importance of historical and economic forces in shaping Scotland’s food culture, highlighting the importance of income, food prices and marketplace ‘offers’ in framing consumer choice. The report advocated a close involvement of the food supply chain (agriculture, processing, retailing, catering and consumers) in changing Scotland’s diet and food culture in a more health-enhancing direction. To achieve such a change, a coordinated, partnership approach would be required, with consumers, farmers, others in the food supply chain and government public services working together. By adopting this systems approach to change, with its central premise that desirable change in one area requires change in other sectors, the James Report set Scotland a modern pioneering role in UK food and health policy.

Although the James Report was recognised at the time to herald an important potential shift in public health policy, other foundation stones had already been laid. Scotland already had diet-related health targets. In 1991, the Scottish Office set targets for reductions in the main risk factors for coronary heart disease and cancers and, in 1992, produced a public health White Paper to highlight Scotland’s poor health record. Although the public health policy terrain was becoming more clearly mapped out, it was less clear whether the reliance on health education and information interventions to shift consumer choice and dietary change would be sufficiently effective to tackle the extent and seriousness of diet-related ill-health. A decade later, informed, not least, by research carried out for the Food Standards Agency (FSA), it is clear that industry-led forces, such as commercial advertising and marketing, exert a powerful influence on consumers’ dietary choices, especially those of children.

2.2 EATING FOR HEALTH: A DIET ACTION PLAN FOR SCOTLAND (1996)

Following the publication of the James Report, there was considerable consultation among a wide spectrum of interests including the NHS; other health and dental interests; the agriculture, fisheries, manufacturing and catering industries; the retail sector; local authority and community interests; consumer organisations; educationalists; voluntary organisations; and government departments. This consultation provided the key national dietary targets for Scotland for 2005, which became incorporated into the SDAP. The targets specified the level and nature of change required in food and nutrient consumption to bring about significant population-level health benefits.

The SDAP report was published in July 1996 by the Scottish Home and Health Department. The action plan was developed by a group that was chaired by the Scottish Office Minister of State, with members drawn from academia, the health professions, industry, consumer groups, the supply chain, education and the media.
The remit for the group was to set out what actions were required, by whom and in what timescale to deliver the Scottish dietary targets. The SDAP recommended 71 actions across nine sectors as practical measures that should be taken to achieve the Scottish dietary targets.

The SDAP aimed to shape consumer tastes; increase consumer demand for healthier food; supply healthier food through changes in the supply chain; give people a better understanding of healthy eating through training, labelling and improved public sector catering; and influence those who govern and monitor changes in health. The recommendations that were considered to be the most important for achieving ‘immediate and attainable health benefits’, and to which there would be the fewest barriers to change, were those actions concerned with increasing the consumption of fruit, vegetables and complex carbohydrates from foods such as bread, breakfast cereals and potatoes. Overall, the SDAP regarded increasing the consumption of fruit and vegetables as the target of greatest importance.


The task of implementing the SDAP recommendations and monitoring progress in achieving the dietary targets was identified as being the responsibility of the Public Health Policy Unit of the Scottish Office Health Department, with annual reports to the Interdepartmental Group on Health Strategy. To oversee this, a Scottish Food Council had been recommended in 1993 ‘to ensure the implementation of major changes in Scotland so that the nutrient and dietary targets can be achieved’; however, this body was not established until January 2005. Its purpose is to provide leadership and expert advice on food and health to The Scottish Executive and to further integrate the cross-cutting elements of Scottish Executive policy and the strategies of the FSAS and Health Scotland. It is made up of the heads of key policy areas within the Scottish Executive, appointed experts and stakeholders and representatives from Health Scotland and the FSAS.

However, a year after the SDAP was published, the prospect of Scottish devolution meant that the delivery of the action plan slowed, as energies and resources were diverted to attend to changes contingent on devolution. In effect, the impetus behind the implementation of the SDAP was uneven and limited in the early years, with only £0.5m allocated to the delivery of the SDAP recommendations. Implementation was prioritised in certain key areas, such as the establishment of the Scottish Community Diet Project (SCDP) and the Scottish Healthy Choices Award Scheme within the Scottish Consumer Council in 1996–1997. The aim of the SCDP was to create a national resource to promote and focus community action on food and diet within low-income communities, to support innovative local projects and to sustain and extend effective ones. The Scottish Healthy Choices Award Scheme was set up to encourage caterers to provide healthy food in a healthier environment. Both have developed steadily over the last 10 years.

Other SDAP recommendations that were acted on immediately were those in which implementation vehicles already existed within the NHS, including the promotion of breastfeeding (via health visitors) and health education [via the Health Education Board for Scotland (HEBS)]. It appears that the majority of SDAP recommendations
were not addressed in earnest until post-devolution structures and strategies were in place to provide the impetus.

Stakeholders across government, civil society and the supply chain acknowledged to the panel the political hiatus that had occurred in the run-up to devolution after the SDAP was published. The possibility of institutional change rapidly moved up the agenda following the Pennington Committee’s powerful report about the Wishaw *Escherichia coli* outbreak. Change followed within a year, with a promise to create a new food standards agency. Although the epidemiological and public health data suggested that dietary health was more important, within public discourse, food safety ranked higher. Another factor was, perhaps, that some of the key players behind the SDAP moved on, for example Philip James left the Rowett Research Institute, and key food industry personnel changed. Almost immediately, attention within the supply chain turned to urgent business issues, notably rapid concentration, maintenance of market share and price cutting.

### 2.4 THE IMPACT OF SCOTTISH DEVOLUTION

When the SDAP was published in 1996, Scotland was an integral part of UK jurisdiction: Scotland had a Secretary of State with a seat in the Cabinet but all legislative powers lay with Westminster. The Scotland Act 1998 set in train Scottish devolution; this marked a major change for Scotland, with new powers and governance arrangements under the new Scottish Parliament. With devolution, Scotland gained primary and secondary legislative powers over many areas that are relevant to food policy. These are shown in Table 1.

Westminster and Whitehall have reserved powers in a number of areas that are relevant to food and health policy, most notably economic policy (including taxation), employment legislation, trade and industry (including competition policy), consumer protection and international trade policy.

The Scottish Executive became the civil service for the newly devolved government in Scotland, and has become known for its more open, transparent, consultative style compared with its predecessor body. It sponsors a wide range of Executive and ‘arms’ length’ national agencies, with Scotland-specific remits that are oriented to the new Parliament. Two of these agencies play a particularly important role in food and public health policy in Scotland: the FSAS and Health Scotland.

The FSAS was established in 2000 as an executive agency responsible for improving food safety and standards and enforcing food safety laws and health protection in relation to food. It also has an important role in public health nutrition. In contrast

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to many other new Scottish institutions, the FSAS was set up as an arm of the UK body, operating ‘within the UK Food Standards agency’ (i.e. as a Scottish part of that agency), to ensure consistency of approach. It is accountable to both the Westminster and the Scottish Parliaments through both Parliaments’ Health Ministers.\(^\text{23}\)

The Scottish Executive established Health Scotland in 2003 (through the bringing together of HEBS and the Public Health Institute of Scotland) as a new national-level NHS board responsible for health improvement and public health in Scotland, supporting policy planning and building capacity for policy implementation across all priority areas, including food and health. The key to its success is working in close partnership with regional NHS boards and local authorities to deliver health improvement related to food and diet.

### 2.5 THE EMERGENCE OF HEALTH IMPROVEMENT POLICY (1999–2005)

This broad picture of evolving policy, institutions and action to improve population health has shaped the context within which the vision first set out by the SDAP has had to operate. Post devolution, there has been a commitment to cross-sectoral action and the pursuit of a broader and supportive health improvement policy context and infrastructure for SDAP implementation. A full listing of policy documents produced by the Scottish Office, the Scottish Executive and other national bodies that are relevant

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to food and health is given in Appendix 1. A summary of the evolving infrastructure and health improvement workforce concerned with SDAP implementation is given in Appendix 2.

In the years immediately before devolution, much preparatory thinking and consultation went into how to improve Scotland’s poor health record. The 1998 Green Paper, *Working Together for a Healthier Scotland*, marked the first cross-government commitment to health improvement and brought to the fore the significance of ‘life circumstances’ for health. This was a precursor to the return of health inequalities and social justice as a central strand of Scottish Executive policy. Although primary responsibility for health remained with individuals and families, the contributions of central and local government, the NHS, commercial organizations and the voluntary sector also featured strongly. The resulting White Paper on health, *Towards a Healthier Scotland*, published by the Scottish Office in 1999, set out a vision for a new approach to health in Scotland, including targets for improvements in population health.24

*Towards a Healthier Scotland* also reiterated government commitment to the full implementation of the SDAP and funding increased to £2m over the following three years, with an extra £0.3m specifically for the SCDP. The appointment of a ‘National Dietary Coordinator’ was proposed ‘to give impetus to the implementation of the plan, with a special focus on developing the contribution of primary producers and major retailers and encouraging mothers to breastfeed’.

When Jack McConnell became First Minister in 2002, he championed health improvement as an important area of cross-government policy. Government funding for health improvement work across Scotland was increased significantly in the forthcoming government spending rounds. In the period 2003–2006, resources for health improvement were allocated across various government programmes including integrated early years action (building on the childcare strategy); the expansion of the Active Primary Schools Programme; the appointment of a school sports coordinator in every secondary school, the specification of nutritional standards for school meals; and the establishment of a national programme for mental health and well-being in Scotland. Resources were further boosted through the creation of the Health Improvement Fund (tobacco taxation monies) and through lottery funding from the New Opportunities Fund (now the Big Lottery) for healthy living centres.

Institutionally, significant changes came in 200326 with the establishment of a new Directorate of Health Improvement within the Scottish Executive Health Department (SEHD). This was to coordinate health improvement across government and the delivery of national strategies in the areas of diet, physical activity and mental health through the secondment of national coordinators, or ‘tsars’. The renewed focus on food and health in health improvement policy, developed since the appointment of the Scottish Food and Health Coordinator, was set out in *Eating for Health: Meeting the Challenge*, which was published in 2004.27 It outlined a strategic framework for food and health that aimed to ‘add to the SDAP by establishing a joint implementation

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strategy with delivery partners for its further and ongoing implementation’. The Scottish Food and Health Council was established as a result of this.

Surprisingly, the 2003 White Paper on health Partnership for Care\(^{28}\) failed to specifically mention the SDAP, despite a chapter dedicated to health improvement, and only mentioned food and health in relation to the Scottish Executive’s healthyliving media campaign. The health improvement themes, including food and diet, were given more detailed attention in a separate policy document published the same year, Improving Health in Scotland: The Challenge.\(^{29}\) The lack of specific integration of the SDAP and the dietary targets with other threads of health improvement policy at this time was perhaps a missed opportunity.

The capacity at national level to support the delivery of the SDAP was strengthened in 2005 with the establishment of a new food and health programme within Health Scotland that provided dedicated support for the implementation of food and health policy. In addition, in 2003 the FSaS produced its Diet and Nutrition Strategy 2003–2006, which made a clear commitment to working with the SEHD on monitoring and achieving the SDAP targets.\(^{30}\) Specific objectives included promoting the consumption of a healthy diet and healthy food choices; promoting the preparation and provision of meals that offer a balanced diet; increasing access to healthier food choices, particularly in low-income and rural areas; working with food manufacturers, processors and retailers to develop and promote healthier food; ensuring that primary food producers at both national and local level contribute fully to the achievement of Scottish dietary targets; supporting joint implementation of the SDAP; and monitoring progress towards the Scottish dietary targets.

At local level, the core health improvement workforce also expanded considerably in the early 2000s. In addition to each NHS board employing a director of public health, a health promotion manager and a department of multidisciplinary public health professionals, new professional roles were created in primary care\(^{31}\) (public health practitioners) and local government (health improvement officers). In addition to this core workforce, a growing number of health improvement posts were funded on a short-term basis, related to initiatives such as healthy living centres, social inclusion partnerships, community schools and community health projects.

The Scottish Executive’s increased commitment to improving public health since 1999 is further demonstrated by comparing expenditure in 1996–1997 (£2m per year) with that in 2005–2006 (£86m per year). Annual budgets fluctuated between £1m and £2m per year in the years 1996–2000, but jumped to £24m in 2000–2001 and £66m in each of 2003/04 and 2004/05.

Discussions with SDAP stakeholders at the panel hearings confirmed the general view that, after an initially slow start and low-level investment, the SDAP has now been given full support as an integrated part of health improvement policy and a genuine

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31 The Chief Nursing Officer’s review of the public health contribution of nurses (2001) led to the introduction of public health practitioners (mostly nurses) within the 84 local healthcare co-operatives (primary care structures) across Scotland
voice within the Scottish Parliament. The panel heard of real commitment from the First Minister and the Scottish Executive for the continued implementation of the SDAP through the new health improvement institutions and infrastructure set up by the SEHD. However, the panel also heard some concern that the window of opportunity for diet and health that is manifest today may not be permanently open. Issues can rise and fall within the political agenda. To deliver long-term change, it is essential that food and health be more fully embedded across the other relevant strands of government policy. Indeed, if food is truly to become a cross-cutting area of government policy, one possibility for public service reform in Scotland is that such cross-cutting policy areas, for example health improvement and sustainable development, should not be located within one department within the Scottish Executive but should report directly to the First Minister.

2.6 CHANGING LOCAL PLANNING AND DELIVERY SYSTEMS

At local level in Scotland food and diet is one aspect of health improvement planning and delivery which is led by the 15 NHS boards (reduced to 14 in 2005) in line with their public health function. However, since 2004, community planning partnerships (CPPs) have become the mechanism for integrating the planning and delivery of local public services across local authorities, health boards and other service providers. CPPs were established following the Local Government in Scotland Act (2003), which made it the duty of Scotland’s 32 local authorities to initiate, maintain and facilitate a process by which the public services provided in that area are planned for by all core partners, including the 15 NHS boards. This legislation also made the attainment of ‘well-being’ a duty of local authorities and has been a strong impetus behind the strengthening of local government’s role in public health.

In addition to an overall community plan, all CPPs produce joint health improvement plans (JHIPs) and regeneration outcome agreements (ROAs) for each of Scotland’s 32 local authority areas. The JHIPs set out whole population strategies, objectives and actions for each organisation to improve the health of the local population, whereas the ROAs set the planning framework for service delivery to achieve better and additional outcomes for the most deprived 15% of the population in each local authority area. This development very much follows the SDAP recommendation that local authorities should consider the dietary needs of their populations when developing strategies for regenerating deprived areas. An analysis of the JHIPs and ROAs in 2005 revealed that 61% of the JHIPs and 72% of the ROAs identified food and diet as a priority for local authority areas in Scotland.32

Public campaigns advocating for changes in food production and supply have been growing over the last 10 years. They tend to be UK-wide and now stem more from the consumer, the environment and sustainability movements than from health. Examples include:

The food campaign of Which? (formerly the Consumers’ Association), recently moved to Scotland to advocate for access to safe, nutritious, good-quality food at affordable prices, and healthy lifestyles and informed food choices.

The Soil Association’s Food Futures, a campaign for sustainable agriculture, aimed at building local partnerships that work together to encourage more local produce to be eaten by local people.

Friends of the Earth’s Real Food Campaign for sustainable food and farming.

In Scotland, the Scottish Consumer Council is an independent policy organisation that represents and advocates for consumer interests, particularly those of disadvantaged groups. It set up and provides the secretariat for the Cross Party Group on Food and has hosted the SCDP for the last 10 years. The Poverty Alliance has, in the past, made important contributions to the debate on food security, access and inequalities through the Foodworks Enquiry. There is no other Scotland-specific vehicle that is responsible for advocacy or lobbying on food and health issues.

### 2.7 INTERNATIONAL POLICY CONTEXT

The scope and direction of Scotland’s policies on food and health are significantly affected by institutions, policies and powers beyond its borders and those of the UK, and they have to be understood from within a multilevel governance framework. Some significant bodies are given in Table 2.

Not all of the bodies listed in Table 2 are of equal weight. For example, Directorate General (DG) Agriculture of the European Union is the parent body of the Common Agricultural Policy (CAP). CAP and the Common Fisheries Policy (CFP), its sister policy, are enormously important in shaping what agriculture and fishing can and cannot do, through a combination of incentives (e.g. funding, market rules) and restrictions (e.g. directives, quotas). Although, since its creation, CAP has always been in a state of near-permanent evolution and has recently made a radical move away from its unpopular and dirigiste commodity-linked payments scheme, it is still formidably powerful in framing what national and subnational bodies can encourage.

In terms of Scottish food and health policy, power of influence extends even beyond the European Union to international bodies such as the World Trade Organization (WTO). The WTO is immensely important as a negotiating forum for farm tariffs and in arbitrating trade disputes or defining what is legitimate in standards setting. From its 1994 Agreement on Agriculture to the Doha round of negotiations, issues relating to Scotland’s policy are being framed increasingly at the international level. Examples of policy direction that affect public health range from trade and intellectual property rights to food standards, competition and healthcare services.

In this world of complex and multilevel policies, it is perhaps inevitable that there is some overlap and confusion, as well as competition for territory and influence. For example, in health, good working relations between the World Health Organization (WHO) Regional Office for Europe and the European Union are important, as is the shared commitment between divisions of the United Nations (UN) that are responsible
Policy background

### Table 2: Public institutions affecting food supply, food culture and public health

<table>
<thead>
<tr>
<th></th>
<th>Food supply</th>
<th>Food culture</th>
<th>Public health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global</strong></td>
<td>Food and Agriculture Organization; World Bank; World Trade Organization; OECD</td>
<td>UN bodies such as UNESCO; UNICEF</td>
<td>World Health Organization; World Bank; UNICEF</td>
</tr>
<tr>
<td><strong>Europe (EU’s 25 member states)</strong></td>
<td>DG Agriculture; DG Fisheries and Maritime Affairs; DG Trade; DG Enterprise and Industry; DG Competition; Committee of the Regions, etc.</td>
<td>DG Communications; DG Research; DG Education and Training; DG Culture, etc.</td>
<td>DG Sanco; DG Environment; European Environment Agency; European Food Safety Authority, etc.</td>
</tr>
<tr>
<td><strong>Europe (other)</strong></td>
<td>Food and Agriculture Organization Europe</td>
<td></td>
<td>World Health Organization Europe; Council of Europe</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td>DEFRA; Department for Trade and Industry; Office of Fair Trading, etc.</td>
<td>Department for Education and Skills; Department for Culture, Media and Sport, etc.</td>
<td>Department of Health; Food Standards Agency, etc.</td>
</tr>
<tr>
<td><strong>Scotland</strong></td>
<td>SEERAD; Scottish Executive; Highlands and Islands Enterprise; Scottish Executive Fisheries, etc.</td>
<td>SEED; Learning and Teaching Scotland; Communities Scotland</td>
<td>SEHD; Health Scotland; FSA Scotland</td>
</tr>
<tr>
<td><strong>Local</strong></td>
<td>Business Link; Small Business Service [working with private sector bodies such as Chambers of Commerce]</td>
<td>Local authorities; community planning partnerships; schools</td>
<td>NHS boards; community health partnerships; environmental health departments</td>
</tr>
</tbody>
</table>

DEFRA, Department for the Environment, Food and Rural Affairs; DG, Directorate General; FSA, Food Standards Agency; OECD, Organization for Economic Co-operation and Development; SEED, Scottish Executive Education Department; SEERAD, Scottish Executive Environment and Rural Affairs Department; SEHD, Scottish Executive Health Department; UNESCO, United Nations Educational, Scientific and Cultural Organization; UNICEF, United Nations Children Fund.

For supply (Food and Agriculture Organization) and health (WHO) and macroeconomic agencies such as the World Bank, and the WTO, in which UN bodies such as the Codex Alimentarius Commission now play an important role in setting food standards. Notifications (i.e. issues requiring policy resolution or engagement) to the WTO regarding food safety increased from 196 in 1995 to 855 in 2003. In the same period, diet and nutritional issues have received very little attention. The EU’s DG Sanco and WHO Europe’s Nutrition Programme are both concerned with food and health and have made important overarching policy statements and reports since the SDAP was created.

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36 www.codexalimentarius.net


39 E.g. Robertson A, Tirado C, Lobstein T et al. (2004). *Food and Health in Europe: A New Basis for Action*. WHO Regional Office for Europe, WHO Regional Publications, Copenhagen, European Series No. 96


2.8 CONCLUSIONS

Changes in Scotland’s political context have brought new opportunities for food and health policy, with devolved legislative powers and a government committed to cross-cutting action for population health improvement and the reduction of health inequalities. This has created new opportunities to inject public health into other national strategies related to food supply that have been developed by the Scottish Executive, Scottish Enterprise and the Scottish food and drink industry.

The establishment of new Scotland-specific institutions, leadership and an enlarged workforce should have strengthened the implementation drive and opportunities by providing dedicated resources. The development of local planning and delivery systems that are geared to joined-up approaches has also created a climate for new integrated approaches to tackling food and health issues across Scotland and local communities.

While Scotland has been developing its national institutions and policy framework, at the international level, a new complex multilevel institutional architecture has also emerged. Today, policies that shape food supply and issues such as television advertising are increasingly being framed at international levels, particularly the EU level and globally. Scotland requires a new mix of information, leverage and policy antennae if its attempts to tackle diet-related ill-health in the era of multilevel governance are to succeed.
3 The changing context of food and health in Scotland

Scotland’s diet and related health problems are neither unique nor entirely solvable within its own borders. The previous section described how, since the publication of the SDAP, there have been major changes that have had an impact on food and health issues and on the policy framework. Devolution has resulted in changes in Scotland’s political context, institutions and delivery systems; macroeconomic changes have affected agriculture, food processing and retailing, which, in turn, have shaped food choices, lifestyles and food skills across the UK. This section expands what these key changes are and their impact on the SDAP’s remit. It begins with diet-related health, before exploring changes in food culture and the supply chain.

3.1 SCOTLAND’S HEALTH

Data from the Registrar General’s Review of Scotland’s Population (2005) provide a broad outline of the current epidemiological trends in Scotland. Scotland has a population of just over five million people (8.6% of the UK population) and, like many European countries, the number of deaths exceeds the number of births; however, the population is rising slightly because of migration into Scotland. Fertility rates in Scotland are lower than in the rest of the UK and the death rate remains higher, in part because of an increasingly ageing population, with the number of children under 15 decreasing by 9% and the number of adults aged 75 or over increasing by 16% over the past decade.

Life expectancy in Scotland in 2004 was 74.2 years for men and 79.3 years for women. The gap between the poorest and the richest in Scotland has been widening and the income disparities between geographical regions increasing. Six out of the ten areas with the lowest life expectancy in Britain are in Scotland. Scotland is not alone in having these geographical inequalities, which pose important choices for policy, for example whether to address urban–rural disparities and, if so, how wealthier urban areas can support poorer rural ones most effectively.

Scotland has historically sat uncomfortably at the bottom of a number of European league tables relating to ill-health. Excluding recent accession countries, in 2005, Scotland was still considered to be either at the bottom or in the bottom two of the

table in terms of its premature death rate, incidence of low birthweight, number of infant deaths and number of underage pregnancies.45

Scotland also does significantly less well in most commonly cited health statistics compared with England and Wales. Premature death rates remain 30% higher than in England and Wales; longstanding illness rates 20% higher; and poor dental health 80% higher. Scotland’s poor health has been much examined and the ‘Scottish effect’ on mortality is frequently discussed in the academic literature, with most studies showing that, even after adjusting for levels of disadvantage, Scotland does less well in health terms.46,47 The role of the environment, including the northern latitude, genetic factors, psychological factors, social factors and behavioural factors, including food and drink choices, are all likely to impact and interact in determining the fate of those living in Scotland.

Disadvantage, however, does have a major impact on morbidity, and the role of deprivation on factors such as low birthweight, dental decay and underage pregnancy cannot be denied. A report by the New Policy Institute reviewed changes in indicators of poverty, inequality and social exclusion in Scotland between 1997/98 and 2004 and provides an expert summary of how poverty and social exclusion are interwoven into health outcomes.48 Who the poor are and where they live is of great importance to policy makers and local authorities – the same geographic pattern is not always exhibited for different indicators of poverty and social exclusion. Glasgow, Dundee and Edinburgh account for half of all low-income ‘data zones’ but only two-fifths of people on low incomes nationally live in these areas.

Premature death is often viewed as the simplest, most accessible, indicator of ill-health, despite its obvious limitations as an indicator of health, and Scotland has shown a steady decrease in death rates throughout the past decade, equivalent to about one-quarter for men and one-fifth for women.49 Reductions in smoking rates (31% of men and women aged from 16 to 64 years were reported to smoke in Scotland in 2003,50 down from 34% of men and 36% of women in 1995 but substantially higher than the rate of 22% of men and 23% of women reported in England in 2004)51 are likely to have been particularly contributory.

Interestingly, Scotland’s worst performance in health terms is in premature deaths amongst working adults: infants, children and the elderly have death rates that are not dissimilar to the European average.52 The New Policy Institute commented in its 2005 summary that the number of working adults living in income poverty who are without dependent children now constitutes more than one-third of all those

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47 Hanlon P, Walsh D, Buchanan D et al. (2001). Chasing the Scottish Effect. Public Health Institute Scotland (now Health Scotland), Glasgow
in income poverty, and it bears reflection that the distribution of benefits for both households with dependent children and those with pensioners has not been mirrored by any increases in the past decade in benefits for working-age households without dependent children. The food culture of this specific population group of working-age adults who live in poverty, either in or out of employment, merits further thought and review.

Whilst the impact of smoking on lung cancer and cardiovascular death rates, particularly in women, has been much investigated and is not an entirely Scottish phenomenon, the particular combination of higher smoking rates and very low intakes of fruit and vegetables is likely to have exacerbated problems in Scotland. In 2003, 44% of women in the most deprived households smoked and the average fruit and vegetable consumption was two portions a day, whilst 16% of women in the least deprived areas smoked and reported an average of 3.5 portions.\textsuperscript{53} An increasing incidence of lung cancer in older women suggests that the focus on increasing intakes of fruit and vegetables among adults of working age who are unskilled or who live in deprived areas may not, in retrospect, have been strong enough.

The decline in heart disease in Scotland has been the result of a huge investment in primary care to tackle heart disease causation and improve treatment. Between 1995 and 2004, the age-standardised mortality rate fell by just over one-third, from 216 per 100 000 population to 140 per 100 000 respectively.\textsuperscript{54} The current national target is to reduce premature mortality from coronary heart disease by 50% in individuals aged under 75 between 1995 and 2010.\textsuperscript{55} The government reports with confidence that it is on track to meet this target. However, health inequalities in heart disease rates persist, despite declines across all population groups, and rates remain twice as high among those living in the greatest deprivation, mirroring similar differences in smoking behaviour between those in the most- and least-deprived communities.\textsuperscript{56}

Cancer also continues to be one of the main health challenges facing Scotland, which has the highest mortality rate for cancer in Western Europe. Despite a substantial recent decline in the rate of lung cancer, which is linked to a reduction in smoking, 27% of all deaths in 2004 were attributable to cancer.\textsuperscript{57} Each year, 26 000 people in Scotland are diagnosed with various forms of the disease and 15 000 die; of these, 26% die from cancers of the trachea, bronchus and lungs, linked directly to smoking. The national target is to reduce premature mortality from cancer by 20% between 1995 and 2010.\textsuperscript{58} Between 1994 and 2004 there was a decrease of 12.5% for men and 6% for women.\textsuperscript{59}

Since the early 1950s there has been a substantial increase in mortality from liver cirrhosis in Scotland.\textsuperscript{60} The steady increase that took place until the end of the 1970s accelerated in the 1980s and 1990s. Between 1950–54 and 2000–02 there was a sixfold

\textsuperscript{58} Scottish Office Department of Health (1999). Towards a Healthier Scotland. Scottish Office, Edinburgh
increase in the mortality rate among Scottish men and a fourfold increase among women. Rates for men in Scotland have doubled since 1987–91; those for women went up by about half in the same period. By 2001, the age-standardised mortality rates in England and Wales were 17.5 and 9.4 per 100,000 population per year for men and women respectively. In Scotland, the corresponding rates were 45.2 and 19.9 per 100,000 population per year. Scotland now has some of the highest mortality rates for liver cirrhosis in Western Europe for both men and women and it is reported that about 90% of Scots aged between 16 and 74 years drink alcohol.\(^61\) In 2002, the age-standardised death rates from liver cirrhosis in Scottish men and women aged from 45 to 64 years were 72.6 and 32.8 per 100,000 population respectively. Whether these increases are caused by increasing consumption among habitual consumers, binge drinking or particular combinations of alcoholic beverages is not clear; high-quality alcohol consumption data are absent.

Self-reported alcohol intake data from the Scottish Health Survey (SHS) (2003)\(^62\) suggest that women in managerial and professional households drink more alcohol overall but that binge drinking is more common among women in deprived areas. Overall, around 27% of men and 14% of women admitted to drinking more than the recommended limit, and the most common drinking location for all consumers was in their own home. Alcoholic beverages can make a substantial contribution to daily energy intakes among consumers and research has shown that, in men aged from 40 to 59 years, body weight increases significantly as alcohol consumption rises.\(^63\) Heavy drinkers (defined in this study as those drinking more than 21 units of alcohol per week) had the highest prevalence of a high body mass index (BMI) but were also more likely to lose weight if their alcohol intake declined. The relationship between alcohol intake and being overweight or obese is of considerable importance and strategies to reduce the rise in obesity in Scotland will need to consider increasing alcohol intakes.

Obesity and being overweight are at the forefront of current health concerns in Scotland. Currently, in Scotland, 26% of women and 22% of men have a BMI greater than 30 and 65% of men and 60% of women have a BMI greater than 25.\(^64\) Data from the SHS (2003)\(^65\) indicate that people living in the most deprived areas are more likely to be obese or morbidly obese than those in the least deprived areas, and morbid obesity is three times higher among women in the lowest income households than in the highest. However, it is unclear to what extent and for which social groups alcohol consumption is a factor among those on low incomes. Obesity has direct links to diseases such as cancer and heart disease, as well as many other morbidities, and tackling obesity may prove to be the most crucial and challenging of all public health policies in Scotland.

Scotland also faces rapidly rising childhood obesity. Data published during the panel hearings in December 2005 brought home the rapid increase and seriousness of this issue, with 20% of children aged three-and-a-half now reported to be overweight and 20% of school-aged children reported to be obese. These figures led to widespread

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concern as they exceeded the predicted values for the UK and were considerably higher than figures for children in England and Wales (see Figures 2 and 3).66

**Figure 2** Overweight, obese and severely obese (defined by body mass index) Primary 1 schoolchildren in Scotland, 2000/01–2004/05. (From Scottish Health Statistics, December 2005.)

**Figure 3** Overweight, obese and severely obese (defined by body mass index) Primary 7 schoolchildren in Scotland, 2000/01–2004/05. (From Scottish Health Statistics, December 2005.)

3.2 SCOTTISH FOOD CULTURE

The SDAP sought to achieve dietary change across all sectors in Scottish society by imparting to the population a basic knowledge and understanding of the principles of healthy eating. Understanding Scottish food culture – local customs and structures, social determinants of food choice and relationships between food access, food choice and family life – was fundamental to the SDAP actions encouraging appropriate consumer change.

The extensive changes in the food supply system over the last decade, which have already been referred to, have resulted in the creation of a new food environment in Scotland; this has had a considerable impact on shopping, purchasing and consumption patterns and, thus, on whether and how the Scottish dietary targets can be met. Although overall wealth has increased and food prices have fallen, there are continuing and deepening inequalities related to the local food retail environment. For lower income groups and those living in areas of high deprivation, the more expensive local corner shop is still the main supplier of basic food items (e.g. bread, milk, fruit and vegetables) given their lower rates of car ownership, reliance on public transport and lower spending power.

Changes in retail geography have been much debated, with arguments for and against their significance for public health.

Differences in purchasing patterns between rural and urban areas of Scotland are thought to explain why fruit and vegetable consumption is highest in remote rural localities, as is the consumption of brown and wholemeal bread, breakfast cereals (all types and wholegrain/high-fibre) and oil-rich fish. Remote rural localities also report the highest consumption of whole milk, cakes, sweet biscuits, pastries, sugar and preserves but the lowest consumption of soft drinks and confectionery.

Although the main factor influencing food choice is reported to be price/value for money, other factors can also ‘frame’ choice. Advertising and marketing, particularly targeted at young people, is the subject of considerable policy debate. Evidence suggests that marketing does have a measurable effect. Besides such framing factors, motivating dietary change has a personal element. Additional research commissioned for the panel explored current attitudes to changing diet and eating patterns in Scotland through focus group discussion.

71 SEERAD (2003). Public Perceptions of Food and Farming in Scotland. SEERAD, Edinburgh
recommendations for healthier living. Local community initiatives had a low impact, but larger initiatives, such as those in schools, had a more positive impact.

The Research Unit in Health, Behaviour and Change (RUHBC) at the University of Edinburgh presented to the panel a number of qualitative studies on diet and eating patterns among families from lower socioeconomic groups. These suggested that family food gatekeepers (primarily women) attempt to balance their own feelings of needing to care for their family with concepts of health and their own skills. Convenience foods were seen as a way of achieving a family meal even if these foods were not regarded as ‘proper’ food. The implication from this research was that people’s ideas about healthy choices and balanced eating may be more complex than commonly understood and that many people may distance themselves from ‘healthy eating’ messages because they think that they eat healthily already. The meanings attached to food, eating and related behaviours are part of prioritising within everyday life and are affected by many factors that are unrelated to good health. However, there is very little evidence available as to why people behave as they do, compared with the data that are available on the outcomes and health impacts of these actions. Such evidence is essential if policy is to be effective and debate grounded in reality.

3.3 CHANGES IN THE FOOD SUPPLY CHAIN

The decade 1995–2005 has seen continual change in how food sales are made across the UK, as well as major shifts in food production and attitudes to diet and health. The food supply chain is essentially a long flow process that begins in a natural place (field, sea or loch) and goes (in a plane, ship or truck) to a building (factory or kitchen) for some kind of conversion and/or value-adding process, resulting in a finished product (meal, ingredient or food). In the decade under review, food in Scotland has continued to witness tremendous change, ranging from new foods to new tastes, formats, locations, processing and marketing methods. These have altered what, when and how people eat in Scotland. For policy makers, the difficulty and fascination with this change is that the place where the transformation of raw ingredients into consumed food occurs, who controls the transformation and who plays what part along the chain all have considerable implications for health.

In totality, the modern food supply chain is highly complex, the result of many decisions along highly differentiated flow processes. The length of the food chain has not only grown considerably for some commodities in recent years, with food travelling long distances between primary producer and end-consumer, but also its internal linkages and ‘loops’ have multiplied. This complexity poses formidable managerial challenges for companies in terms of the orchestration of the chain, as well as for policy makers concerned about the overall impact of foods on health. Some tension is perhaps inevitable between the supply chain’s immediate internal goals (such as profitability, efficiency, market share, competitiveness) and the longer term repercussions for public health, the environment, social justice and culture. That these goals may clash is today widely recognised and discussed within policy making, both in terms of values and with regard to performance indicators.

In its deliberations, the panel quickly became aware of the need to consider how Scotland’s food and health policy can keep abreast of the realities of modern food chains. This terrain, which the SDAP sought to influence, has been altered. However, the panel saw no need to alter the SDAP’s general goal of ensuring dietary change to improve health. On the contrary, the evidence considered by the panel confirms the need for health to be a driver of the supply chain and for health goals to be factored into policy areas that shape food culture, as well as systems of production and distribution. Policy and ministerial responsibilities, which contribute to shaping Scotland’s food supply and its cultural and health impact, include the briefs on economy, trade, social justice, sustainability, agriculture, industry and urban and rural development, among others. Many policy instruments have to be orchestrated if the whole supply chain is to help improve the nation’s diet. This was recognised in the 1993 report *The Scottish Diet* as well as in the SDAP.

Although Scotland, like any country, has a food supply chain that bears the legacy of the past, its food system is also increasingly subject to international dynamics. Because of transport changes, the transfer and availability of foods that was unthinkable decades ago is now normal. Behind this change is an increasingly internationalised food network. What to the consumer is a ‘local’ outlet is often just one distribution point in a European and global logistics system. At the same time, Scotland has witnessed an extension and transformation of the role of food in everyday life, not least through the growth of the food-service sector: cafes, restaurants and takeaways.

Since the mid-1990s, a difficulty for policy makers is that the attention of the owners and managers of the entire UK food system (not just Scotland’s) has not always been fully engaged with health. Other considerations have taken higher priority. Entire retail chains have changed hands. Hundreds and thousands of new products have come on to the market (and departed) each year. New market opportunities have emerged, stayed and gone. Some examples of significant change are given in Table 3.

Scottish agriculture is considered by many to have experienced a particularly difficult period; however, this is not for lack of national policy attention or support. The Scottish Executive has a clear set of overall policies and commitments to help agriculture and ancillary industries rise to modern challenges (see Appendix 1). In hearings and written evidence, it was impressed on the panel that Scotland’s agricultural industry is not only central to Scottish identity – providing landscape, historical reference and culture, as well as diet – but also to employment. Around 70,000 people are directly employed in agriculture in Scotland, representing around 8% of the rural workforce. This means that agriculture is the third largest employer in rural Scotland after the service and public sectors. It is estimated that a further 250,000 jobs (1 in 10 of all Scottish jobs) are dependent on agriculture. Scotland’s farmers, crofters and growers produce output worth around £2 billion a year, and are responsible for much of Scotland’s £400m of food exports.

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78 Data from National Farmers Union Scotland. Available: www.nfus.org.uk
79 Data from National Farmers Union Scotland. Available: www.nfus.org.uk
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Data from the Scottish Agricultural Statistics 1982–2003 show that, between 1993 and 2003, there was a general decline in all sectors of agriculture except for cereal production, with particular difficulties experienced in the dairy industry. One in four dairy farmers in Scotland has gone out of business in the last seven years. The overall decline in the number of dairy farms (from over 5000 in the 1980s to the current

<table>
<thead>
<tr>
<th>Sector</th>
<th>Key issues for supply chain</th>
<th>Key issues for state</th>
<th>Key issues for society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Common Agriculture Policy change; decline in farm numbers and labour employed; arrival of biotechnology; global sourcing; BSE and other crises; E. coli O157/safety drivers; rising fuel prices</td>
<td>Expansion of EU to 25 members; fiscal crisis over cost of support; creation of FSA (BSE, etc) and institutional reform</td>
<td>Loss of trust; growth of environmental concerns about agricultural production; demand for organically grown foods</td>
</tr>
<tr>
<td>Fisheries</td>
<td>Pressures on farmed fish</td>
<td>Reform of Common Fisheries Policy</td>
<td>Reduced employment in fishing industry; concerns about sustainability of fishing</td>
</tr>
<tr>
<td>Food processing</td>
<td>Squeeze on prices; development of ‘niche’ markets for healthy foods; rise in energy costs; application of HACCP</td>
<td>Drive for product innovation; emphasis on quality and safety standards</td>
<td>Demand for ‘natural’ food processing</td>
</tr>
<tr>
<td>Logistics</td>
<td>Application of ‘efficient consumer response’ [ECR] and ‘just-in-time’ management; rise in fuel costs</td>
<td>Road infrastructure is key to expansion [and congestion]</td>
<td>Food miles debate; championing of local foods</td>
</tr>
<tr>
<td>Retail</td>
<td>Supermarket expansion and competition; takeover of Safeway; rapid expansion of Tesco and concentration of its market share; farmers’ markets</td>
<td>Retailers seen as arbiters of efficiency; pressure on planning to limit out-of-town retail developments</td>
<td>Decline in food prices; decline in local food retail outlets with growth of supermarkets and out of town retail parks; impacts on mode of transport used for shopping [increased reliance on car use for shopping, reduced daily physical activity]; growth of home-delivery services; roll out of internet-based shopping and chip-and-PIN technology</td>
</tr>
<tr>
<td>Catering</td>
<td>Growth of cafes, restaurant and takeaway food outlets; increased reliance on migrant labour by catering industry</td>
<td>Increased employment in catering sector; key aspect of economic policy</td>
<td>Growth in eating out of the home and home delivery of ready-to-eat meals; decline in home cooking</td>
</tr>
<tr>
<td>Marketing</td>
<td>Added value of branded foods; market segmentation of health concerns; development of ‘healthy choices’ branding</td>
<td>Deregulation/‘better’ regulation; limitation of controls</td>
<td>Growth of parental concern about food advertising to children; rise of nutrition labelling to increase consumer awareness</td>
</tr>
<tr>
<td>Consumers</td>
<td>Rise of health concerns</td>
<td>‘Choice’ enshrined as key feature of policy</td>
<td>Overall wealth rises; decline in food spending as overall proportion of household spending; continuing inequalities</td>
</tr>
</tbody>
</table>

BSE, bovine spongiform encephalopathy; FSA, Food Standards Agency; HACCP, Hazard Analysis Critical Control Point.
estimate of 1450) reflects the falling prices paid to primary producers for their goods. It is predicted that changes to the CAP, in which farmers will no longer be paid for production, will lead to more farmers leaving the industry. Net farm incomes are predicted to decline from £19,800 per annum in 2003/04 to £10,500 per annum in 2004/05, a figure below the national average income.\textsuperscript{81}

Despite this downbeat assessment, some 75\% of Scotland’s land mass is under agricultural production, making the industry the single biggest determinant of the Scottish landscape. However, around 85\% of Scotland is classified as less favoured area (LFA), an EU classification that recognises natural and geographic disadvantage. The total area farmed in Scotland fell from 6194918 hectares in 1993 to 6113197 in 2003 (a reduction of almost 82,000 hectares). Despite favourable conditions in Scotland for growing a wide range of fruits and vegetables, the number of hectares devoted to growing soft and orchard fruits and vegetables has declined since 1993. The only sector to increase production was cereals, with an increase of 22714 hectares in the area farmed. Innovation has been introduced into broccoli production, which could be extended to other vegetables. Potatoes are highlighted as being an important crop for Scotland; however, production is not linked with attempts to increase intakes of potatoes across the population in a strategic way, as suggested by the SDAP recommendation. The Berry Project has gained a high profile and significant funding from the Scottish Executive.\textsuperscript{82} This project appears to be a rare attempt to put health at the heart of primary production as a direct response to the SDAP. The governance of Berry Scotland is also unusual in that it links producers and academics: its board includes individuals from growing, nutrition, enterprise, research and marketing. Although some promising research is under way,\textsuperscript{83} the Berry Project has not yet been able to emulate the reported success of the Finnish berry project, which was its inspiration.\textsuperscript{84}

The SDAP made a number of recommendations that were a direct call to stimulate Scottish consumer demand for fruit and vegetables. However, from the evidence presented to the panel it does not appear that this important recommendation has been embedded into policies on agriculture and farming or, perhaps surprisingly, the organic action plan.\textsuperscript{85} No action points that might assist this recommendation are given in the Scottish Executive 2001 report \textit{A Forward Strategy for Scottish Agriculture}.\textsuperscript{86} Neither increasing consumer demand for fruit and vegetables nor increasing marketing, production innovation or potentially increasing production locally to stimulate demand and increase intakes were mentioned. Another report, \textit{A Forward Strategy for Scottish Agriculture: Next Steps},\textsuperscript{87} which was published in March 2006, made further suggestions for action, bringing in the principles of sustainable development from \textit{Choosing our Future: Scotland’s Sustainable Development Strategy}.\textsuperscript{88} However, the panel is not aware of direct links in these documents to SDAP targets or to increasing intakes of locally grown and sourced food in Scotland.

\textsuperscript{81} Data from National Farmers Union Scotland. Available: www.nfus.org.uk
\textsuperscript{84} Puska P,Tuomilehto J, Nissinen A et al. (2005). \textit{The North Karelia Project: 20 Years Results and Experiences}. National Public Health Institute and World Health Organization Regional Office for Europe, Helsinki
In addition to the targets and recommendations, the SDAP set out a number of ‘potential developmental opportunities’ for the horticultural sector. No evidence was presented to the effect that these developmental opportunities have been addressed in a strategic way, with comments from the National Farmers Union (NFU), for example that ‘the development of a quality mark for Scottish fruit and vegetables would assist the sector’, suggesting that progress towards this has not yet been achieved. The Horticultural Development Council has a research and developmental role rather than a promotional one; however, research into growing conditions has stimulated an increase in the production of some salad crops that require outdoor protection and this provides an opportunity to diversify in the growing ready-prepared vegetable and salad market.\textsuperscript{89}

The past 20 years have seen considerable changes, not only in what people eat but also in the ways that they eat, with dramatic increases in snacking, eating out and reliance on convenience foods.\textsuperscript{90} There is an increasing consumer demand for convenience food and ready meals, with Britain now the biggest consumer of ready meals in Europe.\textsuperscript{91} Within Scotland, there are a number of strong brands in the food processing market and there appears to have been considerable recent activity in a number of food sectors to exploit the potential of new market opportunities. This has been noted across the Western world.\textsuperscript{92} Industry research shows that ‘healthy food’ is a key driver in 18 of the 24 fastest-growing food categories (see Figure 4), whereas products seen as being ‘less healthy’ by consumers are exhibiting a slower growth or even declining. However, sales figures suggest that consumers are not abandoning the ‘treat’ culture of high-sugar foods.

The current focus on health and well-being within the food processing sector is being seen as an opportunity to develop and market higher value and higher price ‘healthy’ food products for the premium market in Scotland.\textsuperscript{93} Such a strategy could make good business sense yet contribute little to reducing dietary and health inequalities. On the other hand, the food and drinks industry could argue that the affluent markets are the forerunners of mass markets and lead consumer trends. Although some ‘less healthy’ product categories have declined – which could be interpreted as a success for market signals – it should be noted that others, for example sports/energy drinks and refrigerated desserts (see Figure 4), which have a low or doubtful health value, have grown. Manufacturers, conscious of such volatility, are reformulating some products in the light of public health concerns.

The food retail and catering environment in Scotland, which spans supermarkets, restaurants, sandwich bars and fast-food outlets, has followed UK trends and become increasingly complex over the past decade. It has witnessed:

- A continuing rapid reduction in the number of local food retail outlets. Since 1995, there has been an estimated 17% reduction in the number of food shops to the current estimate of 9600. This decrease has occurred particularly among specialist food retailers.\textsuperscript{89}

\textsuperscript{89} Keynote market research data (2004). Available: library.dialog.com
\textsuperscript{93} Scottish Food and Drink. Health Enhancing Food Project. Available: www.scottishfoodanddrink.com
### Table 4

Scottish food retailing: market share and store numbers by company, 2005

<table>
<thead>
<tr>
<th>Retailer</th>
<th>Market share (%) *</th>
<th>Number of stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tesco</td>
<td>28</td>
<td>85</td>
</tr>
<tr>
<td>Asda</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>Morrison (formerly Safeway)</td>
<td>16</td>
<td>69</td>
</tr>
<tr>
<td>Co-op Societies</td>
<td>7</td>
<td>140</td>
</tr>
<tr>
<td>Somerfield</td>
<td>6</td>
<td>370</td>
</tr>
<tr>
<td>J. Sainsbury</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>n/a</td>
</tr>
</tbody>
</table>

From TNS (Market share); Institute of Grocery Distribution (store numbers).

*n/a, not available.

* It should also be noted that the TNS sampling method tends to underestimate independent retailers’ share.

### Figure 4


*RTD, ready-to-drink.
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food shops; for example, the number of specialist butchers has decreased from 1100 in 1995 to an estimated 800 in 2005.

- An increase in the market share of food sales by a small number of large supermarkets (Tesco, Asda, Morrisons, Sainsbury), in particular stores of more than 25,000 square feet.\(^9^4\) Tesco and ASDA have increased the number of their stores in the last decade and, together, now have over 50% of the market share, with Tesco doubling its market share over the last 10 years and greatly extending its store network. The dominance of these retailers in some areas has been the subject of some discussion. Table 4 provides the relevant figures for market share and store number.\(^9^5\)

- A 40% increase in out-of-home catering across the UK, with great diversity in the market place.

Whereas all Asda supermarkets are superstores, the outlets of Somerfield and the Co-op are medium to small stores.\(^9^6\) Smaller retail chains and independents make up the remaining 13% of the market share.

The food retail industry, like the food manufacturing industry, supports the principle of food labelling and the emergence of full nutritional information on labels; however, different formats have differing levels of support. Many in the food industry and some major retailers are keen to use guideline daily amounts (GDAs) as the basis for nutritional labelling and this approach has been developed by the Institute of Grocery Distribution.\(^9^7\) Other retailers have adopted the FSA’s signposting system for front-of-packet labelling, which has been developed with consumer groups to ensure that it facilitates consumer understanding of food composition.\(^9^8\) However, a proliferation of different types of food labels and on-pack information is likely to confuse consumers and add to the cacophony of food messages.

Since the 1990s, there has been an increase in the amount of direct selling at farm shops, farmers’ markets and through box schemes; this form of direct marketing to the consumer is experiencing considerable growth, although overall volume remains low. Recent data from a market research study into the penetration of Scotland’s organic produce suggest that the number of farmers’ markets throughout Scotland has increased to 55, with around 10–15% of goods sold at farmers’ markets coming from organic sources.\(^9^9\) Higher income and smaller households are the largest organic purchasers in Scotland. Consumers see price as the only real deterrent to purchasing Scottish organic goods. Around 42% of the consumers surveyed in this study said that they actively look for Scottish organic food and drink. Approximately one-third of the Scottish consumers questioned bought some organic food and, whilst there was a strong socioeconomic trend, 28% of those in lower socioeconomic groups also reported purchasing organic foods. In 2004, 13 organic box schemes operated throughout Scotland, selling about 5000 boxes per week, but this number is likely to have risen. There appears to have been little strategic support for increasing sales of local produce in this way, despite its obvious benefit to communities, and it has been


\(^9^5\) Institute of Grocery Distribution kindly supplied this data.

\(^9^6\) Asda is the UK subsidiary of Wal-Mart, the world’s largest retailer and food retailer.


\(^9^8\) Food Standards Agency. Available: www.eatwell.gov.uk/foodlabels/trafficlights

suggested that specialised training is required for local food market organisers to ensure that they can develop these retail opportunities.100

One example of work that is funded by the Scottish Executive to promote local food for local people, which was presented to the panel, was Forth Valley Food Links (FVFL); FVFL directly supports development opportunities as outlined in the SDAP. The mission statement of FVFL is clear on its commitment to local producers and consumers and includes a welcome health-related mission statement: ‘to contribute to improving local diet and general health, by encouraging use of fresh, local vegetables and fruit throughout the community.’ The panel heard no evidence of clear investment as a matter of urgency in similar strategies across Scotland. As mentioned previously, the NFU has commented that ‘the development of a quality mark for Scottish fruit and vegetables would assist the sector’, suggesting that progress towards this has not yet been achieved.

3.4 CONCLUSIONS

The decline across all sectors of Scottish agriculture, except cereal production, leaves Scotland increasingly dependent on external suppliers and food imports. The decline in the cultivation of fruit and vegetables – so important for dietary health – suggests that the SDAP’s push to increase consumption by improving output has not been effectively picked up in agriculture. Given the changes in the wider food system and the restructuring and globalisation of the food industry, the SDAP’s assumption that the food industry would get on board and prioritise health was optimistic. Supply chain attention to nutrition has probably not been at its optimum over the last decade; conventional commercial drivers have been more important. Industry representatives, in discussions with the panel, voiced the case that, ultimately, it is the responsibility of consumers to demand healthy food and to act individually, sending signals down the supply chain. The panel saw the need for both ‘push’ and ‘pull’ factors to be addressed by policy makers.

The fundamental importance of building strong drivers and a commitment to public health within the food and drink industry cannot be overemphasised. If Scotland wants to take a lead in improving diet and population health, it will require the full support of the food industry and the exertion of influence beyond Scotland’s borders within the UK, European and international policy context. In the context of an increasingly interconnected world facing similar health concerns, a major challenge is to identify the issues that Scotland’s devolved government can tackle effectively at national level, those where wider collaborative cross-national action is most effective and those where Scotland’s influence at UK and European level is helpful.

4 Evaluation of progress in SDAP implementation and achieving targets

In this section, the panel turns to the main focus of the SDAP review and evaluates the progress that has been made in implementing the SDAP recommendations and the extent to which the dietary targets have been reached. We consider what factors contributed to the achievement of the key successes and present and evaluate four possible explanations for the failure to achieve the SDAP targets by 2005.

4.1 PROGRESS IN IMPLEMENTING THE SDAP RECOMMENDATIONS

In reviewing the progress made in implementing the SDAP recommendations over the last 10 years to 2005, it is clear that there has been an enormous amount of work undertaken in pursuit of the SDAP targets. As noted in Section 2, the slow start in the pre-devolution years means that much of this implementation work is relatively recent and, therefore, has had less time to impact on the dietary outcomes identified in the SDAP targets. There might, therefore, be room for some optimism if more recent trends are reviewed.

For the review, a web-based survey was conducted of SDAP stakeholders (n = 107) who have been working in food and health since 1995 and who were able to make comparative assessments of perceived progress in achieving changes related to 20 key SDAP outcome areas.¹⁰¹ The results clearly show that respondents considered the outcome statements to be more accurate for 2005 than for 1995 – in other words, that there had been considerable progress and improvement over this range of outcomes across the 10 year period.

In the early pre-devolution years, work to change diet was focused within the health service. The outcome statements that were considered to be most accurate in describing the situation in 1995 were both linked to health service-related actions:

- high-quality, appropriate dietary advice and information is provided to women of child-bearing age and expectant mothers
- health professional staff have up-to-date nutritional knowledge and are skilled in giving high-quality, appropriate dietary advice to patients, both opportunistically and routinely.

By 2005, the outcome statements that were regarded as being most accurate reflected the perception that progress was being made across a broader front:

• innovative initiatives and marketing campaigns are undertaken to stimulate consumer demand for ‘healthy’ food products
• breastfeeding is fully supported by appropriately trained professionals working towards local breastfeeding targets
• the fat, salt and sugar content of existing manufactured and processed foods and drinks is under constant scrutiny
• issues of poor diet and low income are being tackled locally and nationally
• food and health is a priority issue within schools and a whole-school approach to food is taken.

Other improvements since 1995 that were noted by respondents were:

• the greater range of affordable healthy foods
• improved clarity of information on food packaging
• more consistent and accurate media messages on healthy eating.

Those areas in which there was general agreement that progress has been poor included the training of catering students in nutrition and the provision of healthy food options by public sector catering services.

Qualitative research from the community-level strand of this review looked at public perceptions of dietary change over the past 10 years. Particular reference was made in this research to the broad contextual factors that stimulate and influence positive dietary change at an individual level, most importantly:

• Changing social norms towards healthier eating with an increasing volume of discussion about food and diet in the media, for example television cookery programmes, popular programmes on healthy eating, news reports, television doctors and, with a lesser impact, health-related advertising and communications: ‘As a conversation, its coming from everywhere around you.’ (Female, E, Pollok); ‘The government are trying to tell you more at the moment.’ (Male, ABC1, Kelvinside.)
• Across all localities, the sustained national initiatives in schools and nurseries on free fruit, school meals and healthy snacks, which are helping to improve children’s nutrition.
• A greater reliance on supermarkets, which increasingly offer healthier food and drinks (lower fat and sugar) and improved food labelling, although the ability to access the benefits is unequal according to area and social group.

The perception of change from these two sources of evidence suggest that there have been significant changes in the availability of healthy food, and that this food is better labelled and promoted. The media and marketing campaigns have helped to shift norms and create a more pro-health food culture in Scotland. Schools and nurseries are also seen as significant sites of positive change. These perspectives formed just a small part of the evidence that the panel reviewed to reach its conclusions on how much progress has been made in implementing the SDAP recommendations and reaching the SDAP targets. A wealth of other information and evidence was gathered together and considered during the review process, including survey data, individual meetings, hearings and published work.
The panel’s assessment of how much progress has been made on each of the 71 SDAP recommendations is summarised below in a series of nine tables, one for each sector (Tables 5–13). A four-point scale is used (substantial, moderate, minor or minimal/none) to provide an overall external assessment of progress and achievement, based on the evidence available to the panel. Such grading may appear to be a crude measure for assessing a set of complex recommendations involving many organisations and individual actions, so a commentary is also provided to highlight key actions, achievements and challenges.

All of the SDAP recommendations have been implemented to some degree, and many (76%) are assessed to have been progressed at a substantial or moderate level. Indeed, there are cases in which implementation has gone well beyond the specified actions. The panel is aware of many other steps that have been taken in the spirit of the SDAP goal of achieving positive dietary change but which were not specifically recommended in the SDAP. Examples include the free fruit in schools initiative; Hungry for Success and the new legislation to consolidate all the work on food in schools; the national marketing campaign on breastfeeding and legislation on breastfeeding in public places; the recruitment of ‘food champions’ to act as advocates and leaders; and work to engage neighbourhood shops in the marketing of fruit and vegetables.

### Table 5  Primary producers

<table>
<thead>
<tr>
<th>Delivery partners</th>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scottish Office Agriculture, Environment and Fisheries Department; Scottish Enterprise (now SEERAD); Health Education Board for Scotland [HEBS; now Health Scotland]; National Farmers Union for Scotland; food retailers; Scottish Vegetable Working Party; Scottish Soft Fruit Growers; agricultural and biological research institutes; Meat and Livestock Commission; dairy industry, Sea Fish Industry Authority, Scottish Salmon Board</td>
<td>Action should be taken to stimulate Scottish demand for fruit and vegetables by means of innovative developmental initiatives and imaginative marketing campaigns. Doubling of fruit and vegetable intakes should be achieved</td>
<td>Minor No clear evidence that this recommendation was embedded into any of the policies on agriculture and farming drawn up since SDAP. Only significant development in this area is the establishment of Berry Scotland, which showed innovation, commitment and imagination but which was small-scale and unlikely to impact strongly on average fruit intakes. No evidence presented of marketing campaigns by primary producers</td>
</tr>
<tr>
<td></td>
<td>Breeding of leaner livestock for human consumption</td>
<td>Substantial Evidence presented from Quality Meat Scotland, Scottish Executive Health Department and Scottish Agricultural College on widespread selection of leaner livestock [beef, sheep and pigs], as well as initiatives to impact on meat trimming. Some concern from the Scottish Federation of Meat Traders that leaner carcases lead to the importation of meat fat for use in processed meat products</td>
</tr>
<tr>
<td></td>
<td>Development of lower-fat meat products to be promoted by retailers, purchasing authorities in the public sector, health alliances and HEBS/Health Scotland</td>
<td>Moderate Evidence presented of coordinated promotion of lower-fat meat products. Some evidence that the specifications developed for procurement of food for schools meals will encourage the supply of lower-fat meat products</td>
</tr>
<tr>
<td></td>
<td>The dairy industry should explore alternative non-food markets for butterfat</td>
<td>Minimal/none The panel heard that the industry believes that this commodity remains too valuable to be sold outside the food chain. They believe that non-food uses of butterfat are unlikely to be cost-effective</td>
</tr>
<tr>
<td></td>
<td>Consumer demand for oil-rich fish should be stimulated</td>
<td>Moderate Some progress reported through the establishment of the Omega 3 Group, which communicates the benefits of oil-rich fish through the use of a logo and marketing and public-relations activity, particularly relating to Scottish Quality Salmon. Funding given through Scottish Enterprise for development of new fish products</td>
</tr>
</tbody>
</table>
### Table 6
Food manufacturers and processors

<table>
<thead>
<tr>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of non-milk extrinsic sugars in weaning and infant foods</td>
<td>Minor Manufacturers of weaning and infant foods presented no evidence to the panel. New EU legislation came into force in 2005 that provides specifications for foods that are prepared for children under 1 year; however, this does not specifically aim to limit sweet foods and does not apply to foods for those aged over 1 year, where an increasing number of foods that are high in sugar are now marketed.</td>
</tr>
<tr>
<td>Nutritional training should be available for those in the food manufacturing, food processing and bakery industries</td>
<td>Minimal/none No evidence was given that this training has been made available</td>
</tr>
<tr>
<td>Industry should investigate how new technologies can facilitate the development of low-fat, low-salt and low-sugar food products</td>
<td>Moderate/substantial The Scottish Food and Drink Health Enhancing Foods project funded by Scottish Enterprise has been in place since 2001 and offers practical help for Scottish food- and drink-processing companies to develop, market and sell healthier foods. Events to raise awareness/provide advice on resolving technical difficulties in reformulating products were held with manufacturers in 2004 and 2005.</td>
</tr>
<tr>
<td>Small, but progressive, reductions in the amount of fat, salt and sugar should be made in processed foods, bakery products and soft drinks</td>
<td>Moderate [salt]; minor [sugar and fat] Significant reductions in the salt content of many foods reported. Considerable work in this area by the Food Standards Agency. Impact on actual changes in salt content of foods and on dietary intakes not yet reported. Little evidence given to the panel on reductions in fat and sugar content of processed foods. No evidence presented to the panel on changes to composition of non-diet soft drinks</td>
</tr>
<tr>
<td>A wider range of products should be developed that promote consumption of fruit and vegetables, complex carbohydrates and oil- rich fish</td>
<td>Minor Some good progress reported, such as the Berry Project and Omega 3 Group. Some self-reported evidence from commercial food suppliers that an increased choice of fish, fruit and vegetable products with lower -fat and reduced salt is being offered to consumers</td>
</tr>
<tr>
<td>A reduction in fat content of existing food products should be facilitated and monitored</td>
<td>Moderate FSA Strategic Plan established action groups to monitor work on reduction of fat in food products: no evidence yet that it is effective in reducing fat content in existing food products</td>
</tr>
<tr>
<td>Commercial benefits of nutritionally improved products should be exploited</td>
<td>Minimal/none No relevant evidence presented to panel</td>
</tr>
<tr>
<td>Nutritional labelling of food products should be presented in ways that facilitate public understanding</td>
<td>Moderate Considerable work on food labelling has been undertaken by both individual food companies, food and drink organisations, retailers and government agencies. Whilst the amount of information provided on packs has increased substantially, there has been no consistent approach across agencies and no evidence that public understanding has increased</td>
</tr>
</tbody>
</table>

SCOTVEC, Scottish Vocational Educational Council.
### Table 7: Food retailers

<table>
<thead>
<tr>
<th>Delivery partners</th>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scottish Office Department of Health; food retailers; supermarkets</td>
<td>The Scottish Office should bring retailers together and consult with them about how healthier food products can be delivered.</td>
<td><strong>Moderate</strong> Evidence presented to the panel of regular meetings between the Scottish Executive and retailers, on an individual rather than a group basis. The Neighbourhood Shops initiatives with convenience stores show the potential to improve sales of healthier food items in local areas but evaluation report not yet available.</td>
</tr>
<tr>
<td></td>
<td>Supermarkets should develop innovative ways of marketing healthy products to consumers</td>
<td><strong>Moderate</strong> Supermarkets appear to be making efforts to alert consumers to healthier foods and drinks [e.g. through healthy-living ranges and promotions of ‘five-a-day’]. However, evidence from the National Consumer Council suggests that supermarkets are still more likely to promote foods that are unhealthy through price initiatives.</td>
</tr>
<tr>
<td></td>
<td>Supermarkets should ensure that labelling of own-brand products with nutritional information is easily understood and enables consumers to make healthy food choices</td>
<td><strong>Moderate</strong> Considerable work has been undertaken on food labelling by retailers, but there is currently mixed evidence that nutrition labelling is easily understood and enables consumers to make healthy food choices. There is also some divergence within the retail sector on which format of food labelling to adopt, with some sections of the food industry prepared to promote labelling developed by the FSA and others strongly supporting a different format. This does little to reduce consumer confusion.</td>
</tr>
<tr>
<td></td>
<td>Supermarkets should examine the feasibility of free or low-cost transport to facilitate access to their stores by low-income consumers and should develop ways of making healthy food more accessible to low-income communities</td>
<td><strong>Minor</strong> Considerable work connecting retailers to local communities facilitated by the Scottish Community Diet Project. Examples of collaboration between supermarkets and local authorities on transport is limited, with only one retail group (the Co-op) cooperating in any significant initiatives. Little evidence of significant involvement by the larger supermarkets to improve community access via free or low-cost transport.</td>
</tr>
<tr>
<td></td>
<td>The Scottish Office Department of Health should explore the use of electronic point-of-sale data and loyalty-card data from supermarkets to enable monitoring of changes in dietary choices</td>
<td><strong>Minimal/none</strong> The Scottish Executive has had discussions with retailers on this and one major retailer has agreed for some information to be provided. However, there is no evidence that this has happened to date.</td>
</tr>
</tbody>
</table>
### Community action

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<tr>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
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<tbody>
<tr>
<td>Directors of public health should designate individuals on the staff of health boards who have training in nutrition to have responsibility for improving the diets of low-income communities in their areas</td>
<td><strong>Moderate</strong> Most NHS boards have a member of staff designated to work in this area, although the remit and funding of these posts is not necessarily consistent across all areas</td>
</tr>
<tr>
<td>Research should be undertaken into the diet of rural communities to provide a basis from which to develop a strategy to support these communities</td>
<td><strong>Moderate</strong> A research study providing a comprehensive national assessment of access to healthy food has been commissioned by Food Standards Agency Scotland and is due to report in 2006. Previous work in this area was commissioned by HEBS in the mid 1990s and other smaller-scale, more local, research projects in this area have been completed, the majority of which have been reported since devolution</td>
</tr>
<tr>
<td>A national project officer should be appointed under the auspices of the Scottish Consumer Council to promote and focus dietary initiatives within low-income communities and to bring these within a strategic framework. The national project officer should have specific responsibility to tackle problems of people living on low incomes, to gather and disseminate information on community initiatives and good practice, to identify the development potential of existing community action such as food co-operatives, to identify training needs, to work with the retail sector and to encourage dialogue with health boards</td>
<td><strong>Substantial</strong> The Scottish Community Diet Project (SCDP) was established in 1996, post-SDAP, with funding from the Scottish Executive via the Scottish Consumer Council. SCDP supports work within low-income communities to improve access to and take-up of a healthy diet. The national project officer has made a substantial contribution to the success of the SCDP and funding was extended to approximately £401 000 in 2005 with 4 staff in post. The scope of the SCDP has been wide-ranging and, in 2004, there were 320 different community food projects supported across all geographical areas. SCDP is unique among responses to the SDAP in that it was established immediately, funding has been in place and the aims and objectives have remained consistent, despite rapidly changing agency environments and policy</td>
</tr>
<tr>
<td>Health alliances established in health boards should expand their work within disadvantaged areas to stimulate, support and synergise community activity. Local authorities should consider the dietary needs of their populations when developing strategies for regenerating their deprived areas</td>
<td><strong>Substantial</strong> Considerable evidence of work with disadvantaged communities was presented by health boards, local authorities and other agencies, as well as by the SCDP. The Scottish Executive has funded a health improvement officer in each local authority since 2001/02. New community planning and community health partnerships offer an opportunity to tackle local barriers to healthy eating through partnership with local authorities and the voluntary sector</td>
</tr>
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</table>
### Table 9: Pregnancy, preschool and school

<table>
<thead>
<tr>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
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<tbody>
<tr>
<td>Regular campaigns should alert potential parents of the need for good nutrition before,</td>
<td>Minor: Although some work in this area was reported, actions generally made reference to ongoing work to promote healthy eating and physical activity in general adult population. No evidence of national campaigns in this area.</td>
</tr>
<tr>
<td>as well as during, pregnancy</td>
<td></td>
</tr>
<tr>
<td>Dietary information should be provided to expectant mothers about their own nutritional</td>
<td>Substantial: A lot of work was reported in this area, from the national policy <em>A Framework for Maternity Services</em> in 2002 to resources produced by HEBS for pregnancy including <em>Ready Steady Baby</em>, a guide to pregnancy, birth and early parenthood, and <em>Off to a Good Start</em>, a parents’ breastfeeding resource. Significant local action reported, with all mothers receiving literature and, in many areas, individual counselling. HEBS/Health Scotland has undertaken evaluation of a range of resources, which suggests that widespread use of these documents is therefore encouraging.</td>
</tr>
<tr>
<td>needs as well as those of their babies. This information should be tailored to meet the</td>
<td></td>
</tr>
<tr>
<td>individual needs of expectant mothers and the quality of information given monitored</td>
<td></td>
</tr>
<tr>
<td>The potential to include information on the benefits of breastfeeding in the school</td>
<td>Moderate: In 2002, HEBS convened a working group to explore ways in which breastfeeding could be incorporated into the curriculum. On the basis of initial research findings, no further action was taken within the school setting. However, HEBS did run a national marketing campaign to increase public awareness of the health benefits of breastfeeding for both mothers and babies.</td>
</tr>
<tr>
<td>curriculum should be examined</td>
<td></td>
</tr>
<tr>
<td>Encouragement should be given to achieve local breastfeeding targets and to promote</td>
<td>Substantial: All but one NHS board has in place some form of breastfeeding strategy based on the Baby-Friendly Initiative. For over 10 years, the National Breastfeeding Group and a national advisor have facilitated progress in this area. In Scotland, 86% of maternity units participate in the Baby-Friendly Initiative, 46% have achieved full baby-friendly status and 58% of babies are born in a baby-friendly unit (from UNICEF data).</td>
</tr>
<tr>
<td>‘baby-friendly hospitals’</td>
<td></td>
</tr>
<tr>
<td>Identification of the action required to encourage a more sympathetic attitude to</td>
<td>Substantial: Work in this area has moved beyond the SDAP recommendation, including national advertising campaigns in 2002 and 2004 to promote breastfeeding. Support for breastfeeding reported through Scottish Healthy Choices encouraging catering establishments to support breastfeeding and local action promoting breastfeeding-friendly premises. Legislative change has been introduced that makes it illegal to prevent babies being milk-fed in any public place where they are entitled to be; this is important support for the promotion of breastfeeding.</td>
</tr>
<tr>
<td>breastfeeding</td>
<td></td>
</tr>
<tr>
<td>The introduction of low-sugar or sugar-free paediatric medicines should be accelerated</td>
<td>Minimal: The promotion of low-sugar or sugar-free paediatric medicines was reported but there appears to have been no consistent national campaign on this issue.</td>
</tr>
<tr>
<td>SDAP recommended action</td>
<td>Evaluation of progress</td>
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<td>----------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Those working with under fives should have working knowledge of the dietary and nutritional needs of young children, which they put into effect. Dietary information and nutritional advice should be provided to the parents of children under five and those who work with under fives in nurseries, playgroups and as childminders. Specialist support to encourage healthy eating among under fives should be explored by local authorities. National dietary guidelines for day carers should be considered and monitored through the inspection process</td>
<td><strong>Substantial</strong> There has been substantial progress in this area through both national and local agencies. The Scottish Executive, in partnership with Health Scotland, has developed <em>Nutritional Guidance for the Early Years</em>, launched in 2006. This guidance will sit alongside <em>National Care Standards for Early Education and Childcare</em> and services will be inspected against these standards. It is advised that staff in early-years settings are trained in these standards, as well as healthy eating, as an inspection theme is planned for 2006/07. <em>Adventures in Foodland</em> resources, produced by Health Scotland, are supported by training. Considerable local expertise is employed in the early-years sector to encourage healthy eating through a wide range of initiatives</td>
</tr>
<tr>
<td>The profile of health education should be raised throughout the school curriculum, and nutrition and diet policies established and monitored in schools. Dietary awareness in schools should be raised. Consistent diet- and nutrition-related materials should be provided to schools</td>
<td><strong>Substantial</strong> The Hungry for Success initiative has moved beyond the recommendations of the SDAP and, in 2003, the Scottish Executive committed to implementing all of the recommendations of the Expert Panel on School Meals, which has the broad-ranging aim of improving the diet of school children through changes to school food, links with the curriculum, establishing a health promoting environment, removing stigma attached to free school meals and ending the promotion and sale of confectionery and fizzy drinks in the school dining room. New nutrient-based standards for school meals were introduced and implemented in primary schools by the end of 2004 and secondary schools by 2006. Inspection of the initiative has already begun and changes in food choice and food service are being observed throughout Scotland</td>
</tr>
<tr>
<td>A short course on practical food preparation should be introduced for all pupils post-S2</td>
<td><strong>Substantial</strong> A course was established in the late 1990s. It has recently been updated by Learning and Teaching Scotland, and introduced nationally</td>
</tr>
<tr>
<td>All trainee teachers should receive adequate training in health education, including nutrition and diet, appropriate to their course</td>
<td><strong>Moderate</strong> HEBS funded a post at Moray House Institute for Education to develop a national health education curriculum, including diet and nutrition, for trainee teachers</td>
</tr>
<tr>
<td>All staff involved in health education should receive appropriate training in nutrition and diet</td>
<td><strong>Moderate</strong> Evidence of progress in many local authority areas. Elementary Food and Health course launched in November 2005 provides access to training across Scotland</td>
</tr>
<tr>
<td>Schools should take steps to ensure that tuck shops and school vending machines reinforce the health promotion and health education messages of the school and these should be monitored as part of school inspection. Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland should be taken into account when determining contract specifications for school meal provision. In primary schools, a limited range of menus, with fruit and vegetables included in the price of meals, should be explored as a matter of priority. Schools should be encouraged to set up school nutrition action groups. The potential to facilitate the introduction of specific healthy eating initiatives that are tailored to the needs of children in schools in low-income areas should be explored</td>
<td><strong>Substantial</strong> Overtaken by Hungry for Success initiative under recommendation 37. In addition The Scottish Executive Health Department provided £2m per year during the period 2003–2006 to introduce free fruit to all Primary one and Primary two pupils three times per week. In some low-income areas, this is extended to children throughout the primary school. The Scottish Health Promoting Schools Unit was established in 2002 to support all schools in becoming health promoting by 2008. Additional initiatives aimed at children in low-income areas have been established in some areas, such as Glasgow, where children are entitled to free breakfast and healthy eating initiatives such as Fruit Plus and Pick and Mix, supporting free fruit and vegetables with meals</td>
</tr>
</tbody>
</table>
## Section 04 Evaluation of progress in SDAP implementation and achieving targets

### Table 10 Caterers

<table>
<thead>
<tr>
<th>Delivery partners</th>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
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<tbody>
<tr>
<td>The Scottish Office Department of Health; Scottish Consumer Council; Health Education Board Scotland (HEBS; now Health Scotland); Scottish Tourist Board; catering sector and establishments; public-service caterers; the fast food sector; local authorities; higher and further education; SCOTVEC</td>
<td>Catering establishments should work progressively towards providing a variety of vegetables and/or a side salad as part of the main course of every meal and the cost should be included in the meal</td>
<td>Minimal The provision of salad or vegetables with main meals appears to have only been achieved as part of the specific healthy eating initiatives of the Scottish Healthy Choices Award Scheme. The practice has not been universally adopted in catering, either in the public or private sectors</td>
</tr>
<tr>
<td>All further and higher education institutions offering courses in hotel and catering management should consider including nutrition and dietary education in their curricula</td>
<td>All further and higher education institutions offering courses in hotel and catering management should consider including nutrition and dietary education in their curricula</td>
<td>Minimal No evidence was presented that training on nutrition has been incorporated into catering courses despite the availability of resources (training materials and short courses)</td>
</tr>
<tr>
<td>The fast-food sector should broaden the range and choice of nutritionally beneficial food it offers consumers and the feasibility of an incremental reduction in fat content of standard products should be examined urgently</td>
<td>The fast-food sector should broaden the range and choice of nutritionally beneficial food it offers consumers and the feasibility of an incremental reduction in fat content of standard products should be examined urgently</td>
<td>Minor No evidence was provided by the commercial fast-food sector. However, there is some evidence from other sources of a move towards more salads, fruit, milk and fruit juice in some fast-food establishments. No evidence was found of a consistent attempt to reduce the fat content of food and drink served across the sector</td>
</tr>
<tr>
<td>All catering staff should have basic level training in nutrition and diet that is externally validated and linked to SVQ for the catering sector</td>
<td>All catering staff should have basic level training in nutrition and diet that is externally validated and linked to SVQ for the catering sector</td>
<td>Moderate From November 2005, an Elementary Food and Health course will be delivered by training centres across Scotland, which is suitable for caterers at all levels. No evidence was presented of a systematic training programme for all catering staff</td>
</tr>
<tr>
<td>The preparation of nutritional guidelines based on the Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland should be commissioned and provided to all catering staff</td>
<td>The preparation of nutritional guidelines based on the Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland should be commissioned and provided to all catering staff</td>
<td>Substantial Model Nutritional Guidelines for Catering Specifications for the Public Sector were widely disseminated and implemented across Scotland, and further guidance has been developed for schools, the NHS and for early years. In addition, target nutrient specifications for food products were developed by the Food Standards Agency Scotland for use in food procurement for school meals, which could be extended to all public service catering</td>
</tr>
<tr>
<td>A low-cost or free nutritional advisory service for caterers, offering advice and nutritional analysis of food recipes, should be piloted</td>
<td>A low-cost or free nutritional advisory service for caterers, offering advice and nutritional analysis of food recipes, should be piloted</td>
<td>Substantial The Scottish Executive funded menu analysis software for use with the Hungry for Success program, which was distributed to all local authorities and caterers and which included a recipe analysis service. This provides a model for support of other areas of public service catering</td>
</tr>
<tr>
<td>The catering service of the Scottish Prison Service and other public services in Scotland should reflect the guidance in the Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland</td>
<td>The catering service of the Scottish Prison Service and other public services in Scotland should reflect the guidance in the Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland</td>
<td>Moderate New nutritional standards for prisons and the NHS are being developed in Scotland but are not yet complete</td>
</tr>
<tr>
<td>A national healthy eating award scheme should be introduced</td>
<td>A national healthy eating award scheme should be introduced</td>
<td>Substantial The Scottish Healthy Choices Award Scheme was launched in 1997 and provided training and guidance to caterers in both the public and private sector. The panel heard disappointment from many stakeholders that this scheme was ending; however, a new national catering award is promised for launch in spring 2006, although this award will focus on the private sector</td>
</tr>
<tr>
<td>Nutritional advice should be incorporated into campaigns by the Scottish Tourist Board to raise catering standards in Scotland</td>
<td>Nutritional advice should be incorporated into campaigns by the Scottish Tourist Board to raise catering standards in Scotland</td>
<td>Moderate Links between tourist boards and Scottish Healthy Choices were reported. The Eat Scotland initiative has been launched by Visit Scotland to promote quality Scottish food</td>
</tr>
</tbody>
</table>

SVQ, Scottish Vocational Qualifications.
### Delivery partners

Health boards and trusts; Health Education Board Scotland (HEBS; now Health Scotland); directors of public health; medical schools; The Royal Colleges; Scottish Council for Postgraduate Medical and Dental Education; National Board for Nursing, Midwifery and Health Visiting for Scotland; Council for Professions Supplementary to Medicine; Community Dietetic Service

<table>
<thead>
<tr>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS catering should take into account the Model Nutritional Guidelines for Catering Specifications for the Public Sector in Scotland</td>
<td>Moderate</td>
</tr>
<tr>
<td>Greater priority should be given to providing adequate dietary education and counselling skills to health professionals</td>
<td>Moderate</td>
</tr>
<tr>
<td>The larger health boards should consider appointing public health nutritionists or experienced dietitians and HEBS should ensure it has access to expert nutritional advice</td>
<td>Moderate</td>
</tr>
<tr>
<td>Directors of public health should include a summary of their health boards diet-related activity in their annual reports</td>
<td>Substantial</td>
</tr>
<tr>
<td>Appropriate emphasis should be given to nutritional and dietary issues when training doctors, nurses and other health professionals</td>
<td>Minor</td>
</tr>
<tr>
<td>A national strategy for developing educational materials on nutrition and diet should be considered</td>
<td>Substantial</td>
</tr>
<tr>
<td>Community dietitians should be encouraged to further develop their professional skills</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
### Section 04  Evaluation of progress in SDAP implementation and achieving targets

#### Table 12  Local authorities

<table>
<thead>
<tr>
<th>Delivery partners</th>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local authorities; health boards</td>
<td>Local authorities should explore the potential to maximise healthy eating in their areas</td>
<td><strong>Moderate</strong> Funding has been provided by the Scottish Executive to appoint a health improvement officer in all local authorities and to support health improvement work by the Convention of Scottish Local Authorities (CoSLA). Community planning partnerships provide opportunities to develop strategies to improve healthy eating</td>
</tr>
<tr>
<td></td>
<td>Health boards and local authorities should seek to develop health alliance partnerships</td>
<td><strong>Moderate</strong> Community planning is starting to provide a platform for the development of joint planning and delivery systems across health boards and local authorities. In some areas, these relationships are well developed. Joint health improvement plans and community health partnerships provide a focus for working at this level</td>
</tr>
<tr>
<td></td>
<td>Local authorities should examine, develop and utilise all opportunities available to them to facilitate dietary improvement across the range of their responsibilities. This includes ensuring that those who provide in-house catering and meals-on-wheels services, as well as home helps, care assistants and others involved in food provision, hold and apply a suitable level of knowledge on diet and nutrition</td>
<td><strong>Minor</strong> Little evidence provided of consistent approach to improving diet across all areas of local authority responsibility, particularly in services for older people, although some local examples of good practice. Most local authority work on food and diet is linked to schools or to the community, through the SCDP</td>
</tr>
</tbody>
</table>
Table 13  Getting the message across

<table>
<thead>
<tr>
<th>Delivery partners</th>
<th>SDAP recommended action</th>
<th>Evaluation of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS boards; Health Education Board Scotland (HEBS; now Health Scotland);</td>
<td>All those in a position to influence dietary behaviour should ensure that the healthy</td>
<td>Substantial There appears to be a high level of commitment within NHS boards to ensuring</td>
</tr>
<tr>
<td>Scottish Consumer Council; employers; the Human Nutrition Research Forum; the</td>
<td>eating messages that they promote are accurate, consistent and reflect the Scottish</td>
<td>consistent healthy eating messages, supported well by HEBS/Health Scotland, FSAS and</td>
</tr>
<tr>
<td>Technology Foresight Programme; Scottish Office Agriculture, Environment and</td>
<td>dietary targets</td>
<td>SNDRi</td>
</tr>
<tr>
<td>Fisheries Department (now SEERAD); Scottish Office Department of Health; Chief</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientist Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A survey of food advertising on Scottish television should be considered</td>
<td>Minimal Extensive work in this area has been taken forward at a UK level by FSA, but</td>
</tr>
<tr>
<td></td>
<td></td>
<td>similar work has not taken place in Scotland</td>
</tr>
<tr>
<td></td>
<td>The feasibility of issuing every household in Scotland with a carefully targeted</td>
<td>Substantial The leaflet Eating for Health was sent to every household in Scotland in</td>
</tr>
<tr>
<td></td>
<td>mailshot conveying information on healthy eating should be explored.</td>
<td>1997</td>
</tr>
<tr>
<td></td>
<td>Guidelines should be prepared to ensure that all those who are interested in promoting</td>
<td>Minor The Eating for Health plate model was developed and promoted for use in Scotland.</td>
</tr>
<tr>
<td></td>
<td>healthy eating are providing consistent messages</td>
<td>However, it was not translated into the ‘guidelines’ identified in this recommendation</td>
</tr>
<tr>
<td></td>
<td>The scope for and utility of a publicity/branding device, which might be used on all</td>
<td>Substantial The HEBS brand was used for all health promotion communications campaigns</td>
</tr>
<tr>
<td></td>
<td>relevant materials concerned with healthy eating, should be explored</td>
<td>before 2003 and gained a high level of consumer recognition. Since then, the Scottish</td>
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<tr>
<td></td>
<td></td>
<td>Executive has developed a new family of brands for government communications, one of</td>
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<td></td>
<td></td>
<td>which is the healthyliving brand for all health improvement work in Scotland. The</td>
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<tr>
<td></td>
<td></td>
<td>branding appears on all advertising communications, healthy eating publications, websites</td>
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<tr>
<td></td>
<td></td>
<td>and promotional items, and is being developed to signpost healthy eating choices to the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consumer</td>
</tr>
<tr>
<td></td>
<td>Employers should exploit ways of encouraging healthy eating by their staff, including</td>
<td>Moderate The Scottish Healthy Choices Award Scheme encouraged many caterers in public</td>
</tr>
<tr>
<td></td>
<td>the provision of a wider range of healthy food choices in staff canteens and restaurants</td>
<td>sector workplaces to offer healthier choices. The Scotland’s Health At Work (SHAW)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>scheme incorporated the development of healthy eating policies and practices within the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>workplace. Beyond these, there does not appear to have been a broader move to promote</td>
</tr>
<tr>
<td></td>
<td></td>
<td>healthy eating messages in the workplace setting</td>
</tr>
<tr>
<td></td>
<td>Research activity on nutritional aspects of health, to improve dietary awareness, should</td>
<td>Moderate There has been significant investment in research on nutrition topics through</td>
</tr>
<tr>
<td></td>
<td>remain a high national priority</td>
<td>the Chief Scientist Office, FSAS, HEBS/Health Scotland and other agencies such as</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEERAD. There is an obvious wealth of academic expertise in Scotland but academics felt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that there are inconsistent links between research and policy and, in particular,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>insufficient funding to look at social determinants of food choice</td>
</tr>
</tbody>
</table>

FSAS, Food Standards Agency Scotland; SEERAD, Scottish Executive Environment and Rural Affairs Department; SNDRi, Scottish Nutrition and Diet Resources initiative.
4.2 PROGRESS IN ACHIEVING THE SDAP TARGETS

The panel requested a report from the working group on Monitoring Scottish Dietary Targets to provide population trends over the last 10 years for the food and nutrient targets, broken down by demographic and socioeconomic indicators as specified in the SDAP. The panel is very grateful to the FSaS and Dr Wendy Wrieden and her colleagues who prepared this detailed and comprehensive report, published at the same time as this panel’s review.103 Pending the completion of this report, the panel sought evidence of progress in its discussions with stakeholders. This and other data enabled it to prepare a preliminary assessment of the current situation whilst awaiting the final report from the FSAS. The panel’s own assessment is given in more detail in an appendix to this report (Appendix 3), the main points of which are also summarised here.

A number of different surveys were reviewed. The advantages and disadvantages of the different survey methodologies in providing evidence on food and nutrient intakes are reviewed in detail by Wrieden and colleagues (2006) in their report and are briefly outlined in Appendix 3. The available data provide a picture of how food and drink choices in Scotland are changing and the effect that this is having on SDAP targets. The complexities and interconnectedness of food and drink choices make it important to look carefully at both intake and purchasing trends and people’s perceived intakes and choices to build up a picture of how dietary choices are changing and ultimately influencing health.

The panel reviewed both food and nutrient intake changes in relation to the SDAP targets. A summary of the progress made towards achieving the targets and the patterning by the Scottish Index of Multiple Deprivation (SIMD) is shown in Table 14; this table uses the data provided by Wrieden et al. (2006), in which information taken from the National Food Survey (NFS) for 1996 was compared with that taken from the Expenditure and Food Survey (EFS) for 2003/04.

The FSAS report concluded that the SDAP targets were not met in 2005 and the panel is also doubtful that these will be met by the newly extended deadline of 2010.104 There was:

- no improvement in the intake of fruit and vegetables, bread, breakfast cereal and both white and oil-rich fish in the period from 1996 to 2003/04
- a fall in the consumption of bread (total and brown/wholemeal bread) over the past 10 years instead of an increase of 45%, and a fall in the consumption of potatoes of 25% instead of an increase of 25%
- a small impact of changes in food intakes on nutrient intake targets, with a slight reduction in fat consumption as a percentage of food energy and an increase in the amount of energy provided by NME sugars.

An increased intake of fruit and vegetables was stated as being the target of most importance in the SDAP and, therefore, trends in consumption of these foods are of particular interest. Overall, there appears to have been a reduction in the intake of vegetables and an increase in the amount of fruit and fruit juice consumed; intakes

Table 14 Summary of progress towards the SDAP targets for foods and nutrients

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Fruit and vegetables: average intake to double to more than 400 g per day</td>
<td>249 g</td>
<td>246 g</td>
<td>No change</td>
<td>Lowest</td>
</tr>
<tr>
<td>Bread: intake to increase by 45% from present daily intake of 106 g, mainly using wholemeal and brown breads</td>
<td>133 g</td>
<td>116 g</td>
<td>↓</td>
<td>Highest</td>
</tr>
<tr>
<td>Wholemeal and brown bread: intake to increase to more than 77 g per day</td>
<td>26.5 g</td>
<td>19.7 g</td>
<td>↓</td>
<td>Lowest</td>
</tr>
<tr>
<td>Breakfast cereals: average intake to double from the present intake of 17 g per day</td>
<td>18.2 g</td>
<td>17.7 g</td>
<td>No change</td>
<td>Lowest</td>
</tr>
<tr>
<td>Fish: white fish consumption to be maintained at current levels</td>
<td>107 g</td>
<td>75.6 g</td>
<td>↓</td>
<td>Lowest</td>
</tr>
<tr>
<td>Fish: oil-rich fish consumption to double from 44 g per week to 88 g per week</td>
<td>35.1 g</td>
<td>31.8 g</td>
<td>No change</td>
<td>Lowest</td>
</tr>
<tr>
<td>Fats: average intake of total fat to reduce from 40.7% to no more than 35% of food energy</td>
<td>39.6%</td>
<td>37.6%</td>
<td>↓</td>
<td>Similar across all areas</td>
</tr>
<tr>
<td>Fats: average intake of saturated fatty acids to reduce from 16.6% to no more than 11% of food energy</td>
<td>15.6%</td>
<td>15.2%</td>
<td>No change</td>
<td>Similar across all areas</td>
</tr>
<tr>
<td>Total complex carbohydrates: increase average non-sugar carbohydrate intake by 25% from 124 g per day through increased consumption of fruit and vegetables, bread, breakfast cereals, rice and pasta and through an increase of 25% in potato consumption</td>
<td>143 g</td>
<td>141 g</td>
<td>No change</td>
<td>Similar across all areas</td>
</tr>
<tr>
<td>Potatoes</td>
<td>99 g</td>
<td>67.9 g</td>
<td>↓</td>
<td>Similar across all areas but lower in least deprived areas</td>
</tr>
<tr>
<td>Sugar: average intake of non-milk extrinsic sugars in adults not to increase</td>
<td>13.6%</td>
<td>16.7%</td>
<td>↑</td>
<td>Highest</td>
</tr>
</tbody>
</table>


Section 04 Evaluation of progress in SDAP implementation and achieving targets

remain significantly lower in the bottom two-fifths of deprived areas and women generally eat greater amounts of these foods than men, except in the areas of greatest deprivation. Spending on fruit and vegetables in Scotland remains lower than elsewhere in the UK. Overall, average weekly expenditure on fresh fruit and fresh and preserved/processed vegetables in 2004–2005 was £5.30 in Scotland compared with £6.30 in the UK as a whole (and £7.40 in the south-east). Whilst those aged from 55 to 64 years reported eating the most fruit and vegetables, intakes were lowest among those aged over 75 years and those under 24 years of age. The National Diet and Nutrition Survey (NDNS), conducted in 1997 on children aged from 4 to 18 years, reported that, whilst 94% of Scottish boys and 91% of Scottish girls ate chips during the recording period, only 20% of boys and 28% of girls ate any green leafy vegetables.

Perceptions of fruit and vegetable consumption appear to be changing, however, so that, whilst intakes have remained much the same over time, one-third of people now report eating five portions of fruit and vegetables a day and fewer people claim to eat none at all, which suggests that the ‘five-a-day’ message may have had some impact on responses to surveys. Potatoes are not included as a vegetable but it is interesting to note that intakes of ‘non-processed potatoes’ (i.e. potatoes prepared at home) have fallen dramatically in the least deprived households whilst intakes have fallen less significantly in more deprived households. The observed overall reduction in intakes of vegetables is a particularly worrying finding, however, and data from the NDNS suggest that people may have responded to calls to increase fruit and vegetable intakes by increasing intakes of bananas rather than foods such as peas and other fresh vegetables.

Whilst the differences in food intakes have not been reflected in significant differences in fat and complex carbohydrate intakes, the most deprived quintiles had the highest intakes of NME sugars. The increase in consumption of NME sugars seen over the last 10 years is probably the result of the increased consumption of confectionery and soft drinks, which has outweighed the decreases in consumption of sweet biscuits, sugar and preserves. Intakes of soft drinks, in particular, were much higher among deprived households and there were strong links between high sugar intakes in deprived areas and poor dental health. A further target of the SDAP was to reduce the average intake of NME sugars among children to 10% of food energy. The most recent available data on intakes in children aged from 4 to 18 years was published in the NDNS in 2000: the mean intake of NME sugars was 77 g per day, representing approximately 17% of the total energy intake for children in Scotland. Whilst this is a crude average across all ages and both genders, the panel suggests that it is very unlikely that the target for reducing the intake of NME sugars will be met at all among children unless large reductions in soft drinks and confectionery consumption can be achieved.

110 Non-milk extrinsic sugars, e.g. table sugar, added sugars in cakes, sweets, soft drinks, honey
It is worth noting that NDNS data collected in 2000/01 showed that salt intakes among adults in Scotland were higher than elsewhere in the UK. The average intakes, based on urinary salt excretion from a small Scottish sample, were about 13.2 g per day for men and 8.2 g per day for women, compared with a national average of 9.5 g per day and a recommended intake of 6 g per day. It could be hypothesised that salt intakes will be higher in more deprived households in which greater amounts of bread, processed meat and sausages and takeaway foods are eaten. However, there are currently few data available on salt intakes and sources of dietary salt in Scotland, despite the importance of high salt intake as a risk factor for hypertension and heart disease.

It should be repeated that Scotland is not alone in failing to meet its dietary targets. For example, member states of the EU do not appear to be achieving the Eurodiet targets. In general, there is likely to be a greater acceptance of ‘eat more’ messages, but translating this into an increase in the consumption of vegetables, bread, breakfast cereals, potatoes and oil-rich fish may prove to be more difficult than increasing intakes of fruit. This is because ‘fruit’ as a commodity has benefited from a strong health-related profile and significant marketing and it fits better into a food culture that is moving away from traditional meal patterns. ‘Eat less’ messages with a similar impact may also be needed to tackle the rising intakes of sugary soft drinks and confectionery, particularly among those in more deprived areas and younger age groups.

4.3 PROGRESS MADE TOWARDS THE SDAP BREASTFEEDING TARGET

The SDAP set a clear target to increase the proportion of mothers who breastfeed their babies during the first six weeks of life from around 30% to more than 50%, with a view to establishing breastfeeding for the first six months as the accepted norm. This target made Scotland the first European country to set a national target for breastfeeding.

Major advances have been made in increasing the rate of breastfeeding in Scotland, with the latest UK-wide infant feeding survey, conducted in 2005, reporting that 70% of Scottish mothers now initiate breastfeeding compared with 63% in the 2000 infant feeding survey. This latter study reported that 30% of Scottish mothers continue breastfeeding for four months compared with 29% of women in England and Wales and 14% in Northern Ireland. It is anticipated that new data from the 2005 study, due to be published in late 2006, will show an increase on these figures for Scotland. Scotland now has the UK’s highest breastfeeding rate at all ages from four months.

However, breastfeeding rates beyond six weeks remain low in international terms, with 24% of Scottish mothers still breastfeeding at six months. This can be compared with Norway,\textsuperscript{116} for example, where breastfeeding policies protecting the needs of breastfeeding women have been in place since the 1970s. In Norway, approximately 99% of women breastfeed when leaving hospital and 80% of babies are fully breastfed at six months.

The increasing age of mothers having their first child is likely to contribute to this upward trend because older mothers are more likely to breastfeed. Even allowing for demographic change, the increases in Scotland are positive and significant. In terms of reducing health inequalities, the social patterning of breastfeeding poses considerable challenges. Whilst 78% of Scottish mothers who have partners in non-manual occupations initiate breastfeeding at birth, only 56% of mothers whose partners have manual occupations and 47% of those in the most deprived households do. However, since 1995, there have been improvements across all deprivation quintiles.

Other data that can be used to identify breastfeeding rates are those collected as part of the Guthrie check at seven days.\textsuperscript{117} These data show that there has been little change in the rate of breastfeeding at seven days over the past five years, with the most significant increase of about 5% occurring between 1995 and 2000.

### 4.4 NOTABLE SUCCESSES FROM THE SDAP

As noted earlier, all of the SDAP recommendations have been implemented to some degree, and many have been progressed at a substantial or moderate level. There are certain key areas that are worth highlighting as success stories; in these areas, substantial progress has been made in implementation and positive impacts are evident:

- promoting healthy eating and food provision in schools, now under the umbrella of Hungry for Success
- work to improve breastfeeding rates and support for women of childbearing age
- the Scottish Community Diet Project (SCDP)
- health education resources and communications campaigns.

As indicated below, the initiatives highlighted here as success stories share some or all of a series of common features that provide important lessons for the future:

- Their longevity – these initiatives often preceded the SDAP or were part of the early implementation actions taken, giving them a longer period in which to achieve change; many of the other SDAP recommendations were not implemented until after 2001, with the appointment of the national Food and Health Coordinator.
- They benefited from a sustained/increasing commitment of resources to the achievement of defined objectives.
- Their delivery involved action by a defined body of professionals who could take responsibility for driving action and change.

\textsuperscript{116} WHO Collaborating Centre for Maternal and Child Health (2003). \textit{Promotion of Breastfeeding in Europe: Protection, Promotion and Support of Breastfeeding in Europe: Current Situation}. Instituto per l’Infanzia IRRCCS Burlo Garofolo, Italy

\textsuperscript{117} Data from National Neonatal Inborn Errors Screening Laboratory, Stobhill Hospital, Glasgow
Review of the SDAP: Progress and Impacts 1996–2005

- Local action was supported at national level by communications campaigns, to increase public awareness and help shift public attitudes.
- Regulatory and legislative action was taken to consolidate and mainstream changes and to help drive consumer demand at an institutional level (e.g. through public procurement systems).

**Food in schools**

The SDAP made 11 recommendations (recommendations 35–45) related to the development of an integrated approach to food and health in schools, including food service, training and the school curriculum. All of the SDAP recommendations have recently been consolidated in the Scottish Executive’s Hungry for Success initiative, a whole-school approach to improving the provision of school meals and using social inclusion principles as important policy drivers.\(^{118}\) The whole-school approach is part of a broader goal of making all schools in Scotland health promoting schools by 2007. This target represents the aspirations of the health promoting schools movement, which has been growing in Scotland since the 1980s and which is now supported by the Scottish Health Promoting Schools Unit, established in May 2002 within Learning and Teaching Scotland.

Hungry for Success promotes healthy eating and a healthy approach to the provision of food and drink in schools through marketing, education and active encouragement. An initial sum of £63.5m was committed to Hungry for Success over its first three years (2003/04–2005/06) and a similar level of funding (£70m) has now been committed for a further three years. The deadline for implementing Hungry for Success in primary schools and special schools was December 2004, and in secondary schools the deadline is December 2006. An evaluation of Hungry for Success was published in October 2005 by HM Inspectorate of Education (HMie),\(^ {119}\) and showed that good progress was being made in the following: implementing the recommendations to meet the nutrient-based standards; improving links between learning and teaching about healthy eating; consulting with pupils; improving accommodation and facilities in school dining rooms; developing school food policies; actively involving staff; and developing fruit schemes, tuck shops and breakfast clubs.

The provision of free fruit in schools across all state primary schools in Scotland was introduced in 2003, with funding of £2m per year received from the SEHD (2003/04–2005/06). All Primary 1 and Primary 2 pupils receive free fresh fruit three times per week. An evaluation of this initiative by the Scottish Centre for Social Research\(^ {120}\) reported that, in 2005, almost 100% of pupils were receiving fruit, with only 4 out of 32 local authorities not reporting full coverage within their primary schools. Overall, the scheme was thought to contribute to an improvement in healthy eating practices and an increase in fruit and vegetable consumption as part of school lunch. Although the scheme is widely supported, there is no evidence, as yet, that it directly impacts on total fruit consumption by primary school children. It is also difficult to separate out the influence of this scheme from wider external influences on fruit consumption and the influence of the Hungry for Success initiative.


The government is now planning to secure more firmly the achievements in improving school food and nutrition by introducing new legislation that will place a duty on local authorities to ensure that food and drinks supplied in state schools (including school canteens, vending machines and tuck shops) meet defined nutrient standards and to promote uptake of school meals, in particular free school meals. In May 2006, the First Minister announced a consultation on the proposed Health Promotion, Nutrition and Schools Bill, seeking views on how to strengthen the Hungry for Success approach in Scottish schools.

The success of food and health policy implementation in schools is founded on the forging of close partnerships between health and education and a commitment to the shared goal of improving children’s diet and improving educational attendance, achievement and attainment by engaging with the health improvement policy agenda. Its successful implementation has also relied on gaining the support of teaching staff, support staff, catering staff and parents.

Food manufacturers and the food industry have also been involved and significant progress has been made in developing products that contribute to achieving the new healthier nutrient standards, using expertise from the FSAS. The role of the FSAS in developing target nutrient specifications to support the effective implementation of the Hungry for Success initiative is an example of good interagency collaboration, with each partner working to its strengths. Another innovative element of the Hungry for Success programme was the development of software for use by Scottish school meal providers, which allows menu planners to evaluate their own menus using the same data across Scotland, promoting transparency and the sharing of good practice.

A number of other factors were reported to the panel as contributing to the success, perceived success and support given across Scotland to the Hungry for Success initiative and other school-related work on diet and food across Scotland:

- Strong national-level leadership from the Scottish Food and Health Coordinator was backed by considerable Scottish Executive investment and planning.
- Enormous public and political support for the well-being of children across Scotland ensured that the efforts to improve school food were integrated into the schools performance assessment process of the HMie.
- A clear map to local authorities showed how to achieve the targets ensuring that there was support at all levels in each authority.
- Strong branding of the Hungry for Success initiative helped to define the project and helped it to act as an umbrella for a number of other related SDAP recommendations.

### Breastfeeding

Work to improve breastfeeding rates in Scotland has achieved significant success over the last 10 years. Much of the work to promote breastfeeding predated the SDAP and has, therefore, had a much longer timescale for implementation and achievement. The Scottish Joint Breastfeeding Initiative (SJBI) was established in 1987 and the setting of a breastfeeding target helped to strengthen the remit of this group. The national strategy has been multifaceted and has had clear objectives that have been monitored regularly. Actions to promote breastfeeding at national and local level have involved group and peer support for breastfeeding mothers, a national marketing campaign to increase public awareness of the health benefits of breastfeeding, training of health...
professionals and health education. The United Nations Children’s Fund (UNICEF) Baby-Friendly Hospital Initiative and the WHO global strategy were also regarded as helpful support at international level.

Those promoting breastfeeding as a group have felt well supported by the SEHD. The national advisor’s post was seen as being instrumental in evolving the strategies and coordinating work across local authorities. The delivery of breastfeeding support by trained and well-supported healthcare professionals is seen as the key to sustaining changes in breastfeeding in Scotland.

Other critical factors in the successful improvement of breastfeeding rates in Scotland were the drive, enthusiasm and commitment of health professionals and pressure from breastfeeding advocacy groups. Important national-level support came from HEBS/Heath Scotland in developing health education resources in addition to the national marketing campaign. Evidence of a positive shift in public attitudes to breastfeeding\(^{121}\) paved the way for the introduction of legislation on breastfeeding in public in March 2005, making it illegal in Scotland ‘to prevent a child being milk fed in any public place he is entitled to be’; this was highlighted as being of particular value in increasing public acceptance of breastfeeding.

The impetus to increase breastfeeding rates has also been strengthened by the mounting evidence that shows the benefits of breastfeeding for both mothers and children. Data from the Dundee Infant Feeding Study\(^{122}\) showed that children who were exclusively breast fed during the first four months of life had significantly fewer respiratory illnesses by the age of seven years compared with bottle-fed infants. The breast-fed children also had less body fat and lower blood pressures than the children who were bottle fed. Further evidence has also suggested that women who breastfeed have a lower risk of developing breast cancer.\(^{123}\)

Scotland has the highest rate of participation in the UNICEF UK Baby-Friendly Initiative, with 86% of maternity units participating and 46% of units achieving full baby-friendly status. Data show that 58% of babies are born in a baby-friendly unit.\(^{124}\) It was suggested that the success in improving breastfeeding rates was, in part, a result of the clear guidance given on how to achieve baby-friendly status and that, as an external initiative, it was widely supported. However, research based on children born in 18 maternity units in Scotland between 1998 and 2000 found that, when standardised for age and deprivation category of the mother, there was no significant variation in breastfeeding rates at six to eight weeks, regardless of the baby-friendly status of the birthplace.\(^{125}\) The Baby-Friendly brand marks a commitment to breastfeeding that has been welcomed across Scotland, but this alone is unlikely to be the sole driver for increasing breastfeeding rates.


The successes so far do not appear to have led to complacency. A number of those involved in breastfeeding promotion agreed that the challenge for the next decade is to consolidate the successes made to date and to focus on empowering younger mothers living in more deprived areas to breastfeed. Most stakeholders agreed that increasing breastfeeding rates among younger mothers and those in the most deprived areas and improving the duration of breastfeeding universally were the key priorities for the future.

Community food initiatives

In 1997, the SCFinP was established with funding from the Scottish Office as a direct response to the SDAP recommendations. The over-riding aim of the SCFinP is to improve Scotland’s food and health by supporting work within low-income communities that improves access to and take-up of a healthy diet. The success of the SCFinP is widely acknowledged and a new phase of the SCFinP is currently being planned.

The SCFinP has established an exemplary monitoring system for tracking outputs, reach and uptake; this has formed the basis for self-evaluation as well as external evaluations. The latest external evaluation of the SCFinP, carried out in 2000, assessed the coverage and effectiveness of its activities and the impact of the grant award scheme on the reduction of barriers to and the uptake of a healthier diet in low-income communities. Key findings and recommendations were:

- Its core services are valued by its users and should be continued.
- It is well placed to develop guidelines for practice development, for example the breakfast club toolkit has clearly been effective in meeting the information and support needs of the increased number of individuals interested in breakfast clubs; food co-ops may be another such area where guidelines can be developed.
- The grant award scheme has been effective in enhancing cooking skills, raising awareness of a healthy diet and contributing to greater access to a healthy diet. The size of the grant is not necessarily related to the level of achievement.
- The grant-funding application process is exemplary for being simple, straightforward and flexible and for helping to identify other sources of funding.

Responses given to the panel from stakeholders regarding this recommendation confirmed an enormous richness and diversity of community-based food initiatives being undertaken throughout Scotland, with support in all NHS board areas. However, the qualitative research on factors influencing dietary change over the last 10 years, which was commissioned for the panel, indicates that the awareness and reach of these community initiatives appears to be low, and therefore a population-level impact is unlikely to be realised.

Much of the SCFinP’s activities have been about stimulating, supporting and synergising community activity, working across the policy agenda with a bottom-up approach. The systematic support for community food initiatives has helped to give a voice to the issue of food inequality at the national level and, with small-scale financial investment, has helped to raise skills, access and consumption for some in low-income areas.

References:

Health education resources and communications campaigns

A large number of the SDAP recommendations were related to health education and ‘getting the message across’, with 24 involving action by HEBS, the national agency for health promotion and education in Scotland at the time. The recommendation in the SDAP that all interests should promote accurate and consistent healthy eating messages has been addressed via a number of routes and agencies in Scotland. The most visible direct response to the SDAP was the production and mailshot distribution of the booklet *Eating for Health* by HEBS in 1996/97. Over the years, HEBS/Health Scotland and the Scottish Nutrition and Diet Resources Initiative (SNDRi) have provided a wide range of nutrition resources, many of which support work that promotes healthy eating and is involved in achieving the SDAP targets. From 1993, HEBS ran a wide range of health education media campaigns, including the *Big 3* and *Top Tips*, which included healthy eating and breastfeeding promotion objectives. Since 2002/03, the Scottish Executive has developed the *healthyliving* communications campaign to promote healthy eating as well as physical activity. The FSAS has developed a consumer information website and provides free publications throughout the UK for the public and the food industry, including some on nutrition and healthy eating. In this area, there is arguably scope for rationalisation and clarification of the roles of Health Scotland, the Scottish Executive and the FSAS.

The SDAP also highlighted the need for a branding device to be used on all relevant materials concerned with healthy eating. Initially, this was implemented through the development of the HEBS ‘health’ brand; it is now being attempted through the development of the *healthyliving* brand, led by the SEHD and used by other agencies. The branding provides an identity for health improvement communications and initiatives and is a way of identifying the collective efforts of organisations and individuals in Scotland who are raising awareness of healthy eating. The use of the *healthyliving* logo on FSAS-funded posters and hoardings related to salt reduction showed good partnership between agencies; however, the logo is not used universally on all publications (e.g. the new *Nutritional Guidance for Early Years*, 2006).

Evidence for the effectiveness of the many and various health education and communication campaigns comes mainly from the population trends in diet-related knowledge (five portions a day) and the motivation to change, monitored since 1996 by the Health Education Population Survey.\(^\text{128,129}\) The proportion of adults who are aware of the recommended daily consumption of at least five portions of fruit and vegetables rose significantly from 19% in 1996 to 65% in 2005. This increase is very likely a reflection of the concerted health education efforts to improve healthy eating over this period, in particular the promotion of the five-a-day message. The improvements in the motivation to eat more healthily were significant but less dramatic over this period (1999–2001), increasing from 53% in 1996 to 61% in 2005. These health education and communication campaigns do not claim to be targeting behaviour change in themselves, but contribute to the behaviour change process by helping to create a pro-health culture that is more receptive to supportive environmental change measures or legislative change.


4.5 WHY HAVE THE TARGETS NOT BEEN MET?

Early on in its deliberations, the panel learned that the food and nutrition targets were unlikely to be met. This had a profound impact on the subsequent development of the inquiry and its thinking. In the course of the hearings, attention shifted to stakeholders’ views as to why the targets had not been met, what lessons might be drawn and what the priorities and direction of future policy on food and health should be. Four main possible explanations for the failure to meet targets emerged:

- failure of policy
- failure of implementation
- consumer resistance to dietary change
- inadequate data to monitor the targets.

It could be argued that the SDAP targets were not achieved because of a failure of policy – the strategy was flawed – or that the actions recommended in the SDAP were inappropriate and unlikely to achieve the level of change defined by the targets. In fact, the SDAP strategy was consistently praised and supported for its broad-ranging and cross-sectoral partnership approach. It had been based, however, on an integrated shift in food supply, civil society and state action but, in fact, most emphasis seems to have been on actions by the public and voluntary sectors related to health education, marketing, training of professionals and supporting community-level action in low-income areas. There was little appetite at the time for policy levers of state regulation and legislation or tougher actions that might have helped to exercise controls on the food supply chain and to drive consumer demand for healthy foods. Without that firm direction, the supply chain has been attending to other non-health goals over the last decade rather than to nutrition-related matters. Its engagement with health has been primarily related to food safety and reliant on responding to consumer demand and developing niche ‘healthy option’ products for the marketplace.

As well as not deploying the full set of policy tools, the SDAP approach might be viewed as having dissipated efforts too widely (71 actions across nine sectors), rather than prioritising a few key areas to achieve maximum population impact. This alternative approach might have helped to strengthen the ‘dose’ and increase the chances of discernible population-level impacts. For example, a number of the SDAP recommendations were a direct call to stimulate the demand for fruit and vegetables and, thus, increase consumption levels. This was considered the single most important dietary target to be achieved in terms of the health benefit. Attempts to increase Scotland’s consumption of fruit and vegetables have not been matched by similar efforts to reduce the intake of foods that ought to be consumed less or by efforts to increase Scotland’s supply of fruit and vegetables. In fact, the cultivation of soft and orchard fruit and vegetables in Scotland has been declining since 1993. Apart from investment in the Berry project and some innovations in broccoli production, the evidence presented to the panel indicates that this important SDAP target has not been embedded into any of the policies on agriculture and farming nor, surprisingly, the organic action plan.¹³⁰ No actions that might assist this target were identified in the Scottish Executive’s Forward Strategy for Scottish Agriculture (2001).¹³¹

was no mention of stimulating consumer demand for fruit and vegetables, increasing marketing or production innovation or increasing production locally. For example, although potatoes are acknowledged to be an important agricultural crop in Scotland, potato production is not linked to attempts to increase potato consumption across the Scottish population in a strategic way, as suggested by the SDAP recommendation. No explicit actions were recommended, such as working more strategically with the horticultural sector, local food-producing networks or caterers and food suppliers to help embed the target of increased consumption of fruit and vegetables into every strand of policy. If doubling the consumption of fruit and vegetables was truly the most important SDAP target, the lack of investment and implementation support seems, in retrospect, cavalier.

The range of actions recommended was not transparently or logically linked to the narrow range of food and nutrient targets defined. It was not clear what the pathways were between the actions defined in the SDAP and the dietary targets. Some were clearly not consistent or logically linked. The SDAP targets are concerned with improving food and nutrient intake at a population level rather than reducing inequalities in diet and food access. Yet, some of the recommended actions focused on inequality by targeting actions and resources on low-income areas.

There is also the thorny question of whether the goal of food and health policy should be to narrow the health gap by enabling people on low incomes to eat better? If so, food and health policy needs to adopt a targeted approach and concentrate resources and actions within the most deprived areas; this is in line with Building a Better Scotland, which aims to increase the rate of health improvement by 15% in the most deprived communities by 2008. The implications are considerable. Relying on the uptake of ‘healthy options’ – an approach whereby food service and supermarkets cater for and build niche markets for ‘healthy’ products – might build sales, however, these products will tend to meet the needs of the ‘worried well’ more than the needs of deprived communities.

By focusing on targets that are concerned with shifting Scotland’s level of consumption of certain key foods and nutrients, the SDAP might also be accused of focusing too narrowly on nutrition as the key policy goal. In fact, the panel heard no strong dissent about the value of the goals and targets for dietary change, except in the light of the increase in obesity levels. These suggest that a target for reducing the prevalence of obesity and measures related to the obesogenic environment, controlling portion size, weight management and monitoring of BMI are important health-related objectives for any future strategy.

It was recognised that, with the devolution of key legislative powers, a significant shift of power has occurred. Long used to a certain administrative distance from Westminster and UK goals, Scotland has been empowered to be more overt and explicit about setting its own strategic goals and carving out a distinctive position from England and/or other parts of the UK. The SDAP belonged to the previous political administration and could easily have been kicked into the long grass. In fact, it has been endorsed and incorporated into the new cross-cutting health improvement policy of the devolved Scottish government and has secured political commitment beyond the Health Minister, most notably from the First Minister and Minister for Scottish Executive (2004). Building a Better Scotland: Spending Proposals 2005–2008. Scottish Executive, Edinburgh, September 2004
Education. There is not yet much evidence of political commitment and ownership by, most importantly, communities and agriculture. For example, the panel is not aware of any links to SDAP targets in *A Forward Strategy for Scottish Agriculture: Next Steps* (2006). These are priority areas for the future, given the inequalities in dietary trends and the importance of food production and supply to health.

A further flaw in the SDAP strategy is the absence of outward-looking actions beyond its borders, given the influence of the UK, European and international policy context on Scotland’s diet and health (see Section 3.3). An effective strategy driven at the national Scottish level has to be appropriately linked and supported at these other levels. The panel felt that the strategy of the SDAP resulted in missed opportunities here. Even with devolved powers, Scotland faces considerable challenges if it is to exert influence on the powerful international drivers of food, nutrition and health.

The success of the SDAP as a policy depended, first, on those in the food supply chain pulling their weight and seeing an advantage in delivering health for all. Second, the state needed to be determinedly proactive on public health across government. Third, there needed to be persistent social pressure to drive the entire Scottish food system (consumer demand and food supply) in a healthier direction. Although the SDAP strategy attempted to cover all three bases, these conditions were not met in full. As noted in Section 3, the supply chain has been dramatically restructured over the last 10 years, driven by other prime considerations. There has been a rapid concentration of all food supply sectors, particularly food retailing, and a continuing agricultural crisis. Partnerships with the food industry have not always been successful, for example Safeway’s information system (to track consumer behaviour) fell down when the retailer was sold ‘south’. Clear links between the food industry and policy making were not made until the SFHC was created in late 2004; it, too, is still feeling its way as to what its role is. That said, there have been major benefits from the incorporation of the SDAP into the broader cross-cutting health improvement agenda post devolution. However, although policy for food and health aligns well with the goals of education, the alignment of health goals and targets with food production and supply-side drivers makes policy coherence somewhat problematic while they are focused on efficiency, profitability, exports and markets.

The panel concluded that the failure to meet the SDAP targets cannot be wholly explained by a failure of strategy, even though there are, in retrospect, a number of flaws in the conception and approach of the SDAP.

The second explanation explored was that there was a failure of implementation – the actions recommended were not fully implemented or followed through. Although preparation for devolution slowed early implementation activity, since 1999 there has been continuity in policy support for implementation, with high-level commitment and leadership at national level over the last five years. There has been consistent national leadership promoting the SDAP. Funding streams were established with considerable reach into SDAP territory (see Appendix 3) and partnerships forged across government. Many food and diet projects have been established at local and national level and within the voluntary sector, greatly aided by funding from and leadership by the SCDP, hosted by the Scottish Consumer Council. Given the delays in SDAP implementation because of devolution and the long time periods needed to
attain population-level changes in health, it is perhaps premature to expect marked change from SDAP implementation beyond those areas already highlighted, in which the foundations had been laid for some time before 1996.

Leadership and accountability at regional level was missing until food and diet became a priority of the directors of public health. There had been a lack of prioritisation as well as a lack of monitoring of actions and resources. Continuous organisational change in the health service slowed implementation efforts and contributed to a general sense of lack of prioritisation for diet-related health improvement. Despite these limitations, however, it was generally agreed that the SDAP provided an important strategic framework for partnership action locally and signalled an important first step in moving towards dietary change.

There are a number of action areas in which implementation was assessed by the panel to be minimal according to the evidence available, and which indicate that the food supply chain was not fully engaged with SDAP implementation. These include:

- reducing the production of dairy fat and finding alternative non-food markets for butter fat
- reducing sugar and fat in processed foods and drinks
- providing basic training in nutrition for those working in the food industry and the hospitality management curriculum
- increasing consumer demand for fruit and vegetables via the catering service and primary producers.

To elaborate increasing consumer demand for fruit and vegetables as an example, the SDAP recommended that catering establishments should work towards providing a variety of vegetables and/or a side salad as part of the main course of every meal and that the cost should be included in the price of the meal. This recommendation has been implemented in the catering trade as part of the Scottish Healthy Choices Award Scheme, in which vegetables and salads are provided on special promotional days or marked as ‘healthy choices’ on the menu. However, including vegetables and salads as part of every main meal is still not an integral part of mainstream catering and is still seen as the exception (an optional addition to the menu) rather than the rule. Therefore, although the action was implemented, it is unlikely to change the consumption of fruit or vegetables at a population level or help change Scottish food culture to the extent that is necessary.

The panel concluded that there was no shortage of implementation effort, but there was a clear view that, with so many recommended actions, implementation resources and efforts were spread too thinly over a wide range of small-scale, short-term projects and initiatives. This meant that actions were not fully implemented and sustained and the population-level impact was lessened. The many small and local projects, for which Scotland is rightly known, lacked national ‘reach’, except through the SCDP; however, these projects were being relied on to deliver a transformation in Scottish food culture.

Another side of the argument suggesting that there has been implementation failure is the absence of an effective advocacy body pressing for changes on food and health issues in Scotland. As noted in Section 2, public campaigns advocating for changes related to food stem mainly from the consumer, environment and sustainability movements rather than health, and often they tend to be UK wide. Following devolution,
the critical voices ‘outside’ government advocating for change in the food system have become incorporated. Although the creation of the SCDP as part of the Scottish Consumer Council has in many ways been a success, and the Scottish Consumer Council should be applauded for its continued support, it has come at a cost in that its important advocacy role as an informed ‘critical friend’ is far less apparent. This role – and the need for ‘gadflies’ to keep policy making on its toes and in tune with changes in supply – is needed. The panel judged that, for an ambitious, cross-sectoral and cross-cutting strategy such as the SDAP, it is essential for there to be strong forces keeping up pressure for improvement and change. This advocacy function needs to be driven by civil society outside government – by the voluntary sector, professional groups and voices that can speak out with authority and lack of fear or favour – rather than relying solely on progress from within – as a result of the actions of politicians, parliamentary committees, audit bodies and civil servants – where attention may be on other matters as well.

Although healthy eating campaigns and messages may have brought about changes in knowledge, awareness and motivation and influenced the food purchasing and consumption patterns of more affluent groups and women, there remains a strong demand for ‘unhealthy foods’. In discussions with individuals from both public health and the supply chain, it was clear that there is a line of thinking that is based on behaviour change – putting the onus on consumers to ‘correct’ their behaviour – and which suggests that all would be well if only consumers would act differently. Setting aside the evidence regarding environments framing behaviour, the health education function can be seen to be effective only in achieving changes in knowledge, attitudes and motivation. The attraction of social marketing is that it seeks, in a society-wide and socially responsible way, to apply methods of and thinking on food cultural change that hitherto have been the terrain of food companies. To put it in context, the annual marketing budgets of just two global food companies exceed that of the World Health Organization for its entire health work over two years. There is no marketing ‘level playing field’. The panel is sober about the serious inequalities in resources and funds that are available to health protagonists compared with those that are available to elements in the supply chain, which are dedicated to increasing the sales of foods and soft drinks that have little place in a health-enhancing diet. The panel is also sober about policy makers being excessively reliant on health education, even in modern forms, for transforming the Scottish diet to the extent that is needed. There is also a danger that appeals for behavioural change will be most effective on the more affluent and will thus exacerbate inequalities.

The principle of consumer choice is often used by the food industry to justify meeting the demand for unhealthy foods. This is a thorny issue. Few in public policy dare to subscribe to less choice, but the panel felt that excessive reliance on choice as a driver for entire supply chains was unwarranted in policy terms. Choice is easily deified, but consumer behaviour is more complex and varied. For all the gains made from increased choice, the resulting costs of healthcare that may follow, years later,


are often excluded. Society needs to calculate these costs. Choice is a deceptively simple ideology behind which dietary habits harmful to health can be hidden. Clearly, for food, the issue is not as simple as for tobacco; however, the panel felt that the impact of choice and the framing of choice by powerful forces warrant research and debate.

The SDAP adopted a wholly consensual, partnership approach to ‘working with’ the food industry, suggesting that the prevailing view was that the supply chain was fine and the problem of the Scottish diet was with the Scottish consumers. Thus, the SDAP approach can be said to have underestimated the powerful role and impact of changes in the food supply chain in shaping food content, access, and availability and consumer demand. Trends in Scotland’s food consumption and nutrient intake in the last 10 years have also been shaped by macroeconomic trends in food supply, food retailing and catering, and related shifts in eating patterns. For example, the rising trend in sugar intake is clearly linked to the changing patterns of eating and drinking outside the home in Scotland; in recent years, these have resulted in a worrying rise in the consumption of soft drinks, snacks and confectionery. Soft drinks, confectionery and lager or beer are the three greatest contributors to sugar intakes. The panel concluded that there is also room for the state to exercise a potentially more effective role in regulating the supply chain drivers. This requires work not only at local, national or UK levels but also at European and international levels.

Several stakeholders commented that dietary change, like all cultural change, is a slow process. In practice, over the last few decades, changes in what, how, when and where people eat have been remarkably rapid. The speed with which adult and childhood obesity has emerged is a pointer to the rapidity of change in food culture and the food environment. Those using a social marketing perspective regard their task as being to challenge and reorient cultural change, sometimes in government-desired directions. The challenge is also to understand what the factors are that are driving us towards obesity, how these can be redirected and in what ways social marketing approaches and public health protection might be effective. Health has become an ‘option’ and a ‘niche’ market rather than the bedrock of food culture, signalling the need for a system-wide policy approach.

The effects of Scottish culture on health are frequently debated. Is socioeconomic deprivation the fundamental issue? Can deprivation and culture explain all of the social variance in health and health-related behaviour? There are competing interpretations. The panel heard no evidence to suggest that reducing social

and health inequalities would on its own address Scotland’s nutritional problems. The cultural dimension of food is well rehearsed and there is strong evidence that there is a diversity of Scottish food cultures, as well as ingrained complex inequalities, exerting profound effects on food consumption patterns. Although Scotland has, and continues to, become richer overall, inequalities are widespread. The gradient effect is consistently strong: lower income consumers experience worse diets and diet-related ill-health. The panel’s discussions with academics and a reading of the literature emphasise the complexity of the interrelationships between social class, gender, age, ethnicity, food consumption and health inequalities. Not without reason do academics recommend that ‘more research needs to be conducted’. Waiting for sufficiently robust evidence on which to base policy action is often not an option. Nor is it compatible with the complex interaction in practice between policy and evidence. Moreover, evidence regarding social nutrition is likely to be always contested.

The fourth explanation considered was that the SDAP targets may well have been met but that the measures and data available for population monitoring of food consumption and nutrient intake were inadequate. Was it possible that the Scottish people had improved their diet but that this change had not been picked up by the scientific measures? If only the failure to meet SDAP targets were so simple! A failure to ensure adequate monitoring of the SDAP targets and systematic evaluations of implementation activities was, in fact, highlighted at the stakeholder consultation meeting. As noted in Section 2, the task of monitoring any progress made in achieving the dietary targets was originally identified as being the responsibility of the Public Health Policy Unit of the Scottish Office Health Department, overseen by the Scottish Food Council. Devolution brought changes to institutional and governance arrangements that took some years to bed in. It was not until 2000 that a Scottish Food and Health Coordinator was appointed to drive implementation forward, and it was only once the FSAS was established that a working group was set up (in April 2003) to monitor Scottish dietary targets, reporting on the adequacy of existing arrangements for monitoring population-level changes according to the SDAP targets. The SFHC was not established until January 2005.

In 2004, the working group on monitoring the Scottish dietary targets reported that there is no stand-alone dietary survey in Scotland.\textsuperscript{143} A key recommendation was that existing surveys should be used to monitor the progress made towards achieving the dietary targets set for 2005, particularly the Expenditure and Food Survey (EFS), because this survey collects quantitative information on diets over 14 days and is likely to be more objective than other dietary assessment methods. However, the existing nutritional surveys are UK wide and the sample sizes for Scotland are not only unrepresentative but also inadequate to allow for the subgroup analysis that is essential for tracking dietary inequalities and assessing the differential impacts of the SDAP. The SHS is the only survey that has a sample size sufficient for subgroup analysis and this provides information only on self-reported food consumption in broad terms. Only now has a robust standardised methodology been designed and recommended for use in the future to calculate food and nutrient intakes on a population basis.\textsuperscript{144}

The panel concluded that, although dietary surveillance is a complex task and monitoring arrangements in Scotland have been suboptimal, there is consistent enough evidence from the existing data sources to suggest a lack of improvement in the intake of key foods and nutrients in Scotland over the last 10 years. The FSAS study by Wrieden and colleagues (2006) has more to add on this issue.

Another line of thinking was whether the dietary targets were appropriate outcome indicators for the SDAP and whether there are arguments for monitoring changes in the wider food system to assess progress. An international comparison study of public health policies on obesity across 14 countries noted that the majority of countries have targets for nutrition, whereas few have targets for obesity or physical activity. As in Scotland, the most common nutritional targets are for key foods (fruit, vegetables, bread, cereals, oily fish) and the proportion of calories obtained from fats and sugars.

The panel was convinced that the Scottish dietary targets were appropriate, given that the SDAP was a nutrition and health policy. However, the panel also recognised the value and relevance of monitoring changes in other food-related indicators that help shape consumption patterns, in order to monitor progress and evaluate the impacts of particular actions. At present, there is a serious dearth of information on food retailing in Scotland, despite good work from its sole academic base at the University of Stirling. There is no consolidated database of the availability of food items at retail level in Scotland and there is an absence of data on the food wholesale and food service sectors. This is a serious deficiency, not only for national monitoring but also for insights into how and where Scottish food retailers might best incorporate a population health approach.

The panel noted the Scottish Executive’s enthusiasm for the current dietary targets and that these targets have been reconfirmed in the 2004 strategic framework, with the timescale extended to 2010. From the evidence presented to the panel, it appears doubtful that it is realistic to expect such a significant level of change in this timescale. Furthermore, the panel would question the relevance of narrow dietary targets as a cross-cutting policy driver, given the need to build enthusiasm and a shared vision across sectors and levels of governance. The panel recommends that the revised dietary targets be modified to dovetail better with broader cross-cutting policy goals (see Section 6).

The failure to achieve ambitious policy targets is a common phenomenon; however, that should not stop policy makers and public health bodies striving to achieve them. Of course, policy targets should be set with caution and progress towards achieving the target should be regularly reviewed, with appropriate incentives and support provided to achieve the target. Targets should also be set sparingly and be achievable within the given timeframe. Essential elements are clarity regarding policy outcomes, having effective and feasible policy measures to achieve these outcomes and having a performance management system in place to hold to account those charged with their implementation. None of this can happen without the ownership of all the key delivery partners.

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The panel evaluated how much progress has been made in the implementation of the SDAP recommendations over the last 10 years on the basis of evidence supplied by a large number of sources and stakeholders. All of the SDAP recommendations have been implemented to some degree, and many were assessed to have been progressed at a substantial or moderate level. Indeed, implementation has gone well beyond the proposed SDAP actions. Four particular areas of SDAP success have been highlighted: an improvement in breastfeeding rates; an improvement in food and diet in schools; the support for community food initiatives; and the production of health education resources and marketing campaigns.

Despite these successes, the panel’s analysis of dietary trends, together with the FSAS report on the dietary targets, concluded that the SDAP targets were not met in 2005, and are unlikely to be met even by 2010. Scotland is not alone in failing to meet its dietary targets.

The dietary trends in Scotland over the last 10 years show a small improvement (reduction) in fat consumption as a percentage of food energy. According to the panel’s analysis, there has also been an increase in the amount of fruit and fruit juice consumed but a reduction in the amount of vegetables eaten. There has been no improvement in the consumption of bread, breakfast cereal and fish over the period from 1996 to 2003/04. Of particular concern is that the intake of NME sugars has moved in the wrong direction, i.e. increased rather than decreased. The consumption of bread (total and brown/wholemeal bread) has fallen over the past 10 years instead of increasing by 45% and the consumption of potatoes has fallen by 25% instead of increasing by 25%. A further worrying trend is that consumption levels of the ‘healthy’ foods, which were targeted to increase, are significantly lower in the most deprived groups of the population.

The panel considered four lines of explanation as to why the SDAP targets had not been met despite considerable success in implementing the SDAP recommendations: failure of policy; inadequate implementation; consumer resistance; and lack of data for policy refinement. The most plausible explanations include:

- The direction required to achieve the level of change defined by the dietary targets underestimated the impact of inequalities; resources and initiatives were spread too thinly across a broad range of actions rather than focusing on achieving population-level impact within a few priority areas.
- The broad range of actions recommended were not transparently or consistently linked to the narrow range of food and nutrient targets identified.
- The SDAP adopted a wholly consensual, partnership approach to ‘working with’ the food industry and, thus, underplayed the powerful role of the food supply chain in shaping food content, access, availability and consumer demand over the last 10 years, for example the role of the period of rapid restructuring of the food industry or the undermining of health messages by powerful marketing and advertising of foods and drinks. The SDAP did not deploy the full set of policy tools available, most notably it did not exercise the regulatory and legislative powers of government to control the food supply chain and help create demand.
- The areas in which little or no progress was made with implementation suggest that, until the recent public debate about rapidly rising obesity, the food supply...
chain has not been fully engaged with the need to change; institutions and leadership across the supply chain were not aligned effectively.

- At regional level, SDAP implementation and prioritisation appeared uneven, accountability for local implementation was unclear and linkages with other relevant policy strands was inadequate.

All of the above factors were contributory but none alone is a sufficient explanation – there is no single, simple reason for SDAP targets not being met. However, some important lessons do emerge for future policy:

- To achieve population-level impact, a more focused and prioritised approach to policy and implementation may prove to be more effective than a broad range, or ‘scattergun’, of initiatives.
- Given the complexity of modern food systems and their dynamics, action needs to be coordinated across all levels of food governance, from local to international level.
- The actions need to be more plausibly linked to policy outcomes and targets and founded upon the overarching strategic themes or ‘directions of travel’ with which all stakeholders (state, supply chain and consumers) can engage; new cross-cutting policy directions for food and health must therefore be fashioned and debated.
- Lines of accountability, monitoring and performance reporting on policy implementation need to be improved, using a wider range of shared intermediate outcomes to help evaluate progress towards targets across sectors.
- Greater use of regulatory powers and incentives can be appropriate and can set goals for the food supply chain, as well as help build consumer demand.
Scotland has a long and honourable tradition of linking research, food supply and health policy. In 1945, John Boyd Orr, founding head of the Rowett Research Institute and first Director General of the UN’s Food and Agriculture Organization, articulated the public needs and aspirations within post-World War II reconstruction.\textsuperscript{147,148} Aspects of the Boyd Orr legacy are still relevant today. The panel was reminded in its hearings that poverty (not just inequality) plays a critical role in producing undesirable nutrition and health outcomes. This is not only an issue of science – setting standards and the measurement and clarification of explanation and aetiology – but also one of morality and societal goals. Time and again, the panel was reminded that the issues laid down by the SDAP go to the heart of the sort of society that Scotland aspires to be.

Scotland’s efforts to improve the Scottish diet, guided by the recommendations of the SDAP, have been commendable, with significant achievements in the areas of schools, breastfeeding, health education and supporting community food initiatives. Since devolution, national-level leadership and policy commitment backed by resources have clearly driven forward the implementation process and enabled progress to be made. But despite these successes, the expected population-level dietary change has not been achieved and, in some respects, the situation has worsened – dietary inequalities, rising levels of obesity, increasing intakes of NME sugars and the declining consumption of bread and potatoes. The current situation justifies a serious rethink about the direction of policy on food, diet and nutrition, taking on board the lessons learned over the past 10 years. The challenge is to frame policy to address a complex, multicausal problem in a cross-cutting way, to focus action on a few priorities and to identify policy measures that will be effective in tackling these priorities. If change is to be achieved across the entire food system, it needs to be driven by concerted action at national, UK, European and international levels.

The process of developing effective and sustainable policy is complex and often problematic. The evidence base is thin in some areas, as well as being complex and contested, and it may also challenge prevailing thinking. The links between food production and food marketing and what people choose to buy, eat and drink are also complex. Public opinion, food scandals and the interplay of stakeholders with different interests make coherent food and nutrition policy difficult to achieve. In fact, few countries have managed to develop robust food and nutrition policies. Scotland has the advantage of an evolving infrastructure for joined-up planning and delivery at local level, and a relatively stable political environment at national level, committed to health improvement, sustainable development and social justice. This means that Scotland could become a model for how a coherent cross-cutting food and health policy can be developed, put into practice, evaluated and sustained. In this section,
the panel offers some thoughts on how this might be achieved, as a starting point for framing future policy, drawing on lessons from policy implementation over the past 10 years in Scotland, as well as cross-national experience in implementing nutrition and health policies. In the final section, suggestions for future action are provided for discussion.

5.1 CROSS-CUTTING FOOD POLICY

In 2005, the Commission of the European Communities published a Green Paper on policies across Europe that promote healthy diets and physical activity, with the aim of preventing people becoming overweight and obese. Many of the key policy areas outlined in this paper are addressed in the Scottish Executive’s strategic framework *Eating for Health: Meeting the Challenge* (2004). It adopts a food-chain approach, linking food production to the consumer through processing and retailing, distribution and access and preparation and provision. It sets out clear policy objectives in these five areas, which are directed to meeting the existing dietary targets. Following the SDAP approach, emphasis is given to measures such as consumer information, social marketing, health education, working with children and young people, and healthy workplaces. To what extent is this strategic framework a coherent cross-cutting food and health policy that is fit for the future?

The lessons of the last decade suggest that the changes needed to achieve the necessary levels of dietary improvement require recognition and ownership across government, as well as the food supply chain. The past 10 years have seen significant progress in the embedding of the dietary change goals of the SDAP within the health and education sectors – this is where achievements are most pronounced. There is still considerable work to be done in attaining ownership and buy-in from communities, agriculture and the environment. If future food policy is to be truly cross-cutting, policy outcomes and targets need to go beyond the existing dietary targets to incorporate the policy goals of other government departments and to influence the wider food supply chain. The panel recommends that the dietary targets are modified so that they dovetail better with broader cross-cutting policy goals, in particular those of agriculture (focusing on Scotland’s production of fruit and vegetables), sustainable development (focusing on sustainable production and supply systems) and social justice (focusing on reducing inequalities). Examples of some of the questions raised by this broader cross-cutting approach are given in Table 15.

Today, as Scotland’s sustainability strategy acknowledges, there are real grounds for concern as to whether the infrastructure for food and health improvement is ‘fit for purpose’. The need to bridge human and environmental health is captured in the term ‘sustainable public health’, which implies a strategic link between policies oriented to the protection of human health and policies protecting the environment. Linking the goals of food and health to those of environmental and sustainable development could be proposed as the core perspective for a new ‘whole life’ approach to public health nutrition in Scotland, offering a means of tackling both causes and consequences of ill-health and inequalities of health. The panel believes that the debate about this
perspective on public health nutrition is already under way in Scotland.\textsuperscript{150} It deserves to be central, and the relationship between consumers’ ecological footprints through the food they eat and the toll that their diet has on their health needs to be clarified.

The Scottish Executive has already made important moves to encourage the linkage between food, health and sustainable development, and has identified food as an opportunity for a win–win situation.\textsuperscript{151} The potential to align the goals of sustainable development with those of better nutrition has been examined by the Sustainable Consumption Roundtable in the practical context of school meals.\textsuperscript{152} They identified three shared goals for healthy and sustainable consumption: making menus more seasonal; serving less and better quality meat; and shifting from serving white fish to oily fish.

The panel recognised that there are tensions over how to mesh health goals with sustainable development. A new sustainable food and health strategy would face conflicts, not least over how to internalise externalised environmental costs and the impact on low-income consumers. There might be reluctance to alter the conventional business goals of pursuing efficiency and profitability, as expressed and supported in


the Scottish Food and Drink Strategy. Undoubtedly, these goals might sit uneasily with the social goals of policies, for example social justice, sustainable development and health improvement. But squaring this circle is a crucial policy test case, not only for whether health remains marginal or becomes central to the food system but also for how the food system addresses the sustainability challenges ahead. Making food supply and consumption both sustainable and healthy is a test for joined-up policy. The panel felt that this policy choice ought not to be fudged. The goal of turning the SDAP into a sustainable food and health policy is simultaneously to make health a driver throughout the supply chain, reshape food culture and renew the supply chain to protect the environment.

The production and supply of fruit and vegetables in Scotland is clearly an area of shared interest between agriculture and health. The Horticultural Development Council has a research and development role rather than a promotional one, but there are clearly opportunities to diversify into new markets and the ready-prepared vegetable (e.g. peeled carrots, washed potatoes) and salad market, which has shown considerable growth.

Despite the growth of direct farm sales (farmers markets, farm shops and box schemes), initiatives to market local Scottish food products do not appear to be cohesive or strategic and are regarded by the main agricultural bodies as being peripheral. Although local foods can be energy intensive and are not always or necessarily the best option when measured against sustainability criteria, if appropriately grown and marketed, their environmental externalities are markedly less than long-distance foods. Here, there is the potential to do good for both health and the environment through food. However, there appears to have been little strategic support for increasing sales of local horticultural and farm produce, despite the obvious benefits to rural farming communities.

Barriers to the marketing of Scottish fruit and vegetables for the home market may lie in the trend towards the branding of food packaging by supermarkets rather than producers. Supermarkets have tried to strengthen their ‘own labels’ and build their own brands, to drive down costs, squeeze suppliers and exert more control over supply chains. Sales of own-brand labelled food products are increasing and now comprise 50% of food sales by major retailers. The panel was told, however, that opportunities for strong Scottish marketing and branding do exist. Initiatives such as the Scottish Food and Drink Excellence Awards are raising the profile of quality Scottish foods. Scottish Enterprise is involved in a wide range of strategies, which aim to support Scottish producers. The opportunities for local food production have been given strong policy backing by the Scottish sustainability strategy and have further potential in terms of promoting Scottish tourism. Building deeper and richer links between such sustainability goals and public health goals seem to the panel to be an important new direction for Scottish food and drink strategy.

153 Scottish Enterprise and Highlands & Islands Enterprise (1999). Scottish Food and Drink Strategy. Scottish Enterprise, Glasgow
156 Pretty JN, Ball AS, Lang T et al. (2005). Farm costs and food miles: an assessment of the full cost of the UK weekly food basket. Food Policy 30:1–20
5.2 SOCIAL JUSTICE AND INEQUALITIES

Linking the health improvement and social justice agendas with the supply chain means moving away from a food policy that is primarily focused on dietary change and the consequent improvements in specific diseases to one that is more focused on the issue of ‘food security’, with its benefits for the environment, communities and individuals.\(^{159}\) The Poverty Alliance argues that concentrating only on health inequalities, for example low-income diet problems, income inadequacy, household management skills and self-help, fails to address the bigger picture of food supply, not least the objective of securing an accessible supply of affordable, quality food for everyone. Action to achieve a healthy food supply for all requires the support and involvement of society as a whole. This perspective is in line with an ecological approach to public health nutrition, linking food, physical activity and the environment across all stages of the life cycle. It offers a means to tackle both the causes and consequences of ill-health and health inequalities. A discussion of these issues is already under way in Scotland.\(^{160}\)

Reflecting the time in which it was written, the SDAP did not make its recommendations with a view to reducing health inequalities. The recommendations in the SDAP relating to health inequalities were focused around low-income communities and the roles of the Scottish Consumer Council and the SCDP. Over the past 10 years, there has been a shift in thinking to acknowledge that inequalities in health cannot be addressed by focusing solely on socioeconomic disadvantage and communities; solutions require a broader approach that also acknowledges diversity, according to gender, ethnicity and disability within communities.

Since 2000, Scottish Executive policy has emphasised the priority attached to improving the health of ethnic minority groups (Fair For All, 2001, 2002), as well as reducing inequalities related to poverty and deprivation. The 2004 spending review (Closing the Opportunity Gap) reframed its health improvement targets in terms of increasing the rate of improvement for the most deprived communities, as measured by the Scottish Index of Multiple Deprivation.

In its report on poverty and social exclusion in Scotland however, the New Policy Institute challenged policy makers to consider whether ‘too much is being expected of the Scottish Executive’s actions on health inequalities’.\(^{161}\) The New Policy Institute questioned whether there is clear evidence on how to tackle ill-health in disadvantaged groups, whether programmes should focus on inequalities or whether there should be a wider programme covering general health for all. It also asked whether it is better to consider a programme covering all aspects of ill-health or focus on a programme that targets a specific area which is ‘noticeably bad’ in Scotland. These are all areas that require further debate.


5.3 MULTILEVEL GOVERNANCE, INSTITUTIONS AND LEADERSHIP

The development of cross-cutting policy on food has profound implications for governance and leadership of that policy. Food policy has been historically the preserve of the Ministry of Agriculture, with a supporting role played by the Ministry of Health. The evolution of independent food standards agencies in many member states in the EU has been coupled with an increasing involvement in the food policy agenda by the Ministries of Education, the Environment, Trade and Industry and those responsible for local government. Different governance arrangements have been examined in an expert commentary on the international progress that has been made in the development and implementation of food and nutrition policies across 13 countries.\(^{162}\)

In Scotland, food policy is currently led by the Deputy Minister for Health and Community Care, who chairs the SFHC. The remit of the Council is to provide leadership and expert advice and integrate cross-cutting elements of Scottish Executive policy in directing food and health policy in Scotland. This remit was discussed by many of those who presented to the panel. Having been in existence for only 18 months, it was felt that the SFHC had not yet clearly established its role – is it a policy advisory group, a policy-making group or a stakeholder group? The Council could develop in different directions and a key issue, therefore, is establishing its function, purpose, reporting and membership. The Nordic experience offers some guidance on the critical questions arising for such policy councils depending on their remit:\(^{163}\)

- If a stakeholder group, what are the criteria for membership? How are members’ different interests engaged?
- If a scientific advisory committee, which sciences should be represented – nutritional science, public health science, social science?
- If a ministerial advisory group, how does it liaise with external interests?
- If a cross-sectoral policy group, to whom does it report?

In Scotland, the SFHC has multisector membership and represents a wide range of stakeholder interests, but the mechanism for addressing the competing agendas of its members is unclear. How does the Council ensure full engagement of the supply chain when agendas may be incompatible? As noted earlier in this report, the economic goals of the agricultural sector of ensuring profitability are potentially at odds with the public health goals of increasing the consumption of fruit and vegetables and other basic food commodities. Adding value to food is not the same thing as delivering nutritional value. Building a brand is not the same thing as giving useable nutritionally relevant information. The conflicts over food labelling are not only a battle over which format is better – GDAs or traffic lights – but also a battle of wills. Government has proposed a consumer-led form of food labelling, developed with public money, to aid consumers in their choice of a healthy diet. Many food producers and retailers, however, have rejected the labelling developed by government and have adopted their own form of food labelling.


Most national experts contacted by Robertson \(^{164}\) regarded the success of food policy implementation as being dependent on the willingness of different stakeholders to work together; however, they also recognised that the Ministries of Agriculture or Education, for example, have difficulty in being coordinated by the Ministry of Health. In Scotland, the SFHC is currently chaired by the Deputy Minister for Health and Community Care, with SEHD civil servants taking a secretariat role. There was debate about whether the chair should be held instead by a leading expert or public health professional on the grounds that a ministerial lead is prone to political distractions. There was also recognition of the benefit provided to the Council of having direct ministerial input to the Joint Ministerial Group for Health Improvement. International experience suggests that it may be advisable to place such cross-government coordination mechanisms under the Cabinet or Prime Minister.

Cross-national experience also suggested that the creation of a Ministry of Public Health is another mechanism for improving intersectoral collaboration on cross-cutting issues such as food policy. The main responsibility of this ministry would be to engage with other sectors and carry out health impact assessments of their policies, thus concentrating on health improvement and not the healthcare system. In addition, qualified public health experts would be needed as project leaders and policy advisors and to translate political commitment at senior levels into plans and directions, which would be likely to improve health. There would also need to be support and political commitment from director generals and chief executives, good management and organisational skills, and written agreements between government departments that are explicit about responsibility for implementation.

A problem for Scotland is how to develop a cross-cutting food and health policy for the future in a world in which there are many levels of governance: local, regional, national, UK, EU and global. Policy tends to be shaped at the international or UK level, rather than at the national or local level. The political challenge is how to ensure that this world of multilevel governance delivers health gain, and that all forces in the food system – state, supply chain and society – are moving in the same direction at all levels and at the same time. Building on the experience of the last decade, the panel argues that Scotland’s future food and health policy will require leadership on all fronts and at all levels of the food system (local to global). Government has to engineer this situation.

At the level of international governance, food policy is an increasing focus of international institutions. For example, the UN’s Food and Agriculture Organization (FAO), the Codex Alimentarius Commission, WHO and the EU Commission have all expanded their roles in relation to food policy. All national experts value international opportunities to share information and learn from each other. Although Scotland compares well with other countries in terms of its policy on food and health and its implementation, it compares less favourably in terms of international collaboration and influence. \(^{164}\) All of the other European countries interviewed for the panel’s international report participated regularly at EU meetings, such as the Nutrition and Physical Activity Network and the Platform for Diet and Physical Activity, and all, except Scotland, participate in WHO meetings. In this respect, the Nordic countries provide the best examples of international collaboration from a small country perspective.

The panel supports the Scottish Executive’s recent move to join the WHO’s alliance of small countries, to share experience on common health issues such as tackling food and health. Tapping into that experience on a routine basis, as well as sharing Scotland’s successes, needs to be a feature of the new policy framework.

A number of policy challenges loom for food and health policy that will concentrate all of these factors and which provide an opportunity for the move to the sustainable food and health strategy recommended here. The chief task ahead for Scotland’s food and health policy is to begin to build nutrition thinking into policy and strategies that contribute to tackling these changes. Ecological thinking has to be built into health improvement policy and offers a strategic link to policies that are currently at arms’ length. Undoubtedly, new tensions, as well as synergies, will appear in the process. The model being considered for use in the strategic framework for environment and health, announced in 2005, might be a useful tool in considering the environmental influences on diet. The panel believes that the good work since devolution is a springboard for taking the SDAP deeper and wider.

A shift in public awareness and policy development is already under way. But what will help to drive policy change is public opinion and public pressure backed up by activism. This is clearly evident in the area of tobacco and health, in which the role of Action on Smoking and Health (ASH) has been recognised, but was also seen in the achievement of improvements in breastfeeding, where pressure has been exerted by breastfeeding advocacy groups. In the past, the food policy debate in the UK has been driven by public health issues, but there has been a sea change so that consumer, environment and sustainability issues now prevail. In Section 4, we noted the absence of an effective advocacy body in Scotland, pressing for changes on food and health issues and driven from outside government. The panel regards this as being essential for exercising pressure for change.

Further careful analysis and debate are needed. Step change requires all policy stakeholders to change significantly if a new food culture is to take root. The situation is complex; Scotland is not alone in facing these challenges but it is well placed to take a lead if it chooses. Table 16 offers some pointers for policy directions, although it makes no pretense to be exhaustive.

5.4 A FULLY ENGAGED FOOD INDUSTRY

The framing of Scotland’s future food policy in terms of the goals of public health and sustainability has to recognise and address the major influence of local and global restructuring across the food supply chain. Scotland’s food system is subjected to powerful external forces of change from economic and political elements. Furthermore, public health is not universally accepted as a legitimate goal for the food industry.165

Tackling dietary inequalities and the problems of rising obesity levels will not be solved by relying on the SDAP approach of forming consensual partnerships with the food industry to transform consumer demand or by leaving health to market forces as currently constituted. The way that food manufacturers interpret health

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Framing future policy

is more likely to be in terms of developing new healthy product lines and niches rather than dietary transformation. Population trends indicate the limitations of relying on consumer choice and market-led approaches, particularly for children. The imbalance in resources and power between public sector-funded health education campaigns and commercial food advertising, for instance, is considerable. When consumers become aware of their limited capacity to influence markets, they expect governments to intervene. The regulatory powers of national level government can set the terms and conditions in which markets can operate successfully and can build in supply chain incentives through, for example, public procurement systems, to drive consumer demand at an institutional level. The Scottish Executive has already shown that it is not averse to using regulatory and legislative measures to bring about and consolidate change. Notable successes are in the areas of school food and the promotion of breastfeeding. Corporate social responsibility is a welcome approach but it has its limitations and has only fledgling status with regard to health.

Although the panel held lively and valuable discussions on these issues, it did sense that the food industry was not fully engaged with the SDAP change process. However, the Henley Centre has noted a welcome and remarkable shift of position within the food

<table>
<thead>
<tr>
<th>Level of work</th>
<th>State</th>
<th>Supply chain</th>
<th>Civil society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>Locate new policy within appropriate UN goals: WHO DPAS, UNEP, Millennium Goals, etc</td>
<td>Create new global audit standards for company performance</td>
<td>Work with others to exert health controls on food marketing targeted at children</td>
</tr>
<tr>
<td>Europe</td>
<td>Create a small countries’ alliance to share international experience (Celtic, Nordic, Baltic countries)</td>
<td>Work on reform of the CAP and CFP for health and sustainability</td>
<td>Campaign to build physical activity into daily life</td>
</tr>
<tr>
<td>UK</td>
<td>Encourage UK to conduct an audit of CAP (like Sweden) but do this jointly with sustainability bodies</td>
<td>Commit to lower salt, sugar and fat across all ranges, not just niche products</td>
<td>Work to increase drinking of water and to reduce sales of soft drinks</td>
</tr>
<tr>
<td>Scotland</td>
<td>Translate food targets into everyday messages; create a new science advisory structure</td>
<td>Extend public procurement to link health and sustainability standards</td>
<td>More active role in public education</td>
</tr>
<tr>
<td>Local</td>
<td>Create new local food and health alliances; strengthen local focus on food within community planning partnerships; develop strategies to tackle urban/rural differences</td>
<td>Promote increased Scottish consumption of Scottish fish and seafood – healthy and ‘local’</td>
<td>Bring together health, environment, conservation and social justice; identify critical factors contributing to deprivation and food poverty at local level</td>
</tr>
</tbody>
</table>

CAP, European Union’s Common Agricultural Policy; CFP, European Union’s Common Fisheries Policy; DPAS, Diet, Physical Activity and Health Strategy (of the WHO); UNEP, United Nations Environment Programme; WHO, World Health Organization.


industry that indicates the emergence of new opportunities. This may be indicative of a move through a familiar trajectory that begins with disinterest (‘there is no issue’), and then moves to denial (‘there is an issue, but it is nothing to do with us’), putting the onus on consumers (‘consumers demand it’), reluctant acceptance that supply is implicated in health (‘we can offer a niche healthy product’), and displacement (‘eat fat but take more exercise’). Only finally, is there full engagement (‘we all need to change in concert to tackle this issue’). The dominance of large global companies in the food retail environment, which have brands and reputations to protect, could be an opportunity for policy makers because these companies are likely to be more sensitive to public opinion and, therefore, responsive to public pressure. Policy makers need to keep the securing of acceptance and full engagement uppermost in their minds. The strategy has to be about how to have a health-enhancing supply chain, food culture and mesh of policy.

5.5 PRIORITIES FOR THE FUTURE

An important lesson learned from the past 10 years is to focus attention on achieving population-level impact within a few priority areas rather than spreading resources across a broad range of desirable actions. To aid the process of setting priorities, stakeholders across Scotland were invited to identify their priorities for future action on diet and health as part of the review process. In this survey of stakeholder opinions, respondents were asked to prioritise from a list of predefined actions, which corresponded to SDAP-related outcomes. The highest priority was given to reducing inequalities in diet, with promoting good nutrition through schools a close second. The third and fourth priorities were food industry based – ensuring the production of healthy foods and reducing the amount of fat in the food chain. No doubt reflecting the good progress that has already been made, the lowest priority was given to professional support for breastfeeding, training of health professionals about nutrition and improving the diet of women of childbearing age. Similarly, the qualitative research on community perspectives of dietary change concluded that the most important areas for the future were the promotion of good nutrition through nurseries and schools, the promotion of healthy eating through mainstream media (television, radio, press, etc) and a reduction in the amount of unhealthy fats in manufactured and processed foods.

The panel suggests that Scotland’s future priorities should be to build on the existing work and achievements in schools and improve children’s diets. Related to this is the new public health challenge of stemming the rising levels of obesity among both adults and children across the world. To centre the new food policy framework on the dual priorities of children and young people and obesity would be timely because both have the attention of policy makers. Both require the engagement of ‘push’ and ‘pull’ factors, navigating the delicate issues of individual choice, personal responsibility and the role of the state. The priority issue of reducing health inequalities is cross-cutting

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168 Henley Centre (2004). *Fat is a Strategic Issue*. Henley Centre, London, October; especially Figure 2: Industry responses to change, p. 6


and is recommended by the panel as being a strategic theme for a future sustainable food and health policy (see Section 6).

There is a strong consensus that children and schools should be a priority area for action, building on work carried out over two decades. A successful and coordinated approach, involving education and health, to improve children’s diets and educational attainment within the health promoting school setting has already been outlined in Section 4.3. This should serve as a model for other settings and priority areas.

Recent guidance to Scottish schools requiring them to discuss any sponsorship contracts valued at more than £3000 with local authorities suggests a willingness in Scotland to tackle some of the broader issues related to poor dietary health and to move fast to implement these ideas. Guidance to curb advertising in schools was developed by the Scottish Consumer Council working with the Scottish Executive, local councils and the business organisation CBI Scotland. This could be a forerunner to the regulation of commercial food promotion to children at a UK level.

The panel considered at length whether the rapid rise of obesity was a totem around which future Scottish food policy might unite. The tenor of discussion within and between stakeholders confirmed that there is now recognition that the extent of change needed to prevent obesity rising further, let alone reduce it, is an over-riding priority that affects everything and everyone. It is not extreme to talk of the need for an entire culture shift, and not just in Scotland. For example, to burn off the 139 calories contained in a can of one of the most popular brands of sugared fizzy drink, the consumer needs to undertake 19 minutes of strenuous activity, 28 minutes of walking moderately quickly or 46 minutes of slow walking. To burn off the 379 calories contained in a typical cheeseburger, the comparable activity figures are 51, 76 and 126 minutes respectively. Although stark, such figures have altered the level of debate about food and health since the SDAP was created. Obesity as an issue, however, has the disadvantage of, again, placing emphasis on individual behaviour change and polarising rather than uniting community, commercial and government focus.

Recent data suggest that, in the three critical areas of weight change, activity and alcohol consumption, the average picture across Scotland shows an increasingly obese population, taking too little exercise and drinking to excess, with these problems frequently and significantly more acute among those in the most deprived communities. The gap between the richest and poorest in Scotland is also widening. It has also been suggested that current policies may make things worse and increase social inequalities – polarising Scottish society into the well-off elite and the less healthy majority.

If reducing the prevalence of obesity becomes a target for food and health policy in Europe over the coming decade, it is important to consider to what extent a broader

cross-cutting food and health strategy can be a vehicle. There were no specific targets relating directly to obesity in the SDAP, although the causes and consequences of being overweight were explored in the 1993 report on the Scottish diet. The strong relationship between obesity and the development of diabetes in later adulthood led to the suggestion that targets be set on weight maintenance (men) and reduction in body weight (women). The rise of obesity across Europe is high on the public health agenda because unhealthy diets and lack of physical activity are the leading causes of avoidable illness and premature death, costing up to 7% of all healthcare costs.

Many people would like to see the Scottish Executive grasp the nettle of obesity as it has with smoking. Obesity is, of course, a far more complex, private and challenging public health dilemma than smoking; however, the particularly high levels of childhood obesity in Scotland do appear to have been given a low priority despite a cacophony of warning signs over the past decade. The current focus on ‘obesogenic’ environments reflects concerns that, whilst long-term government strategies to address poverty and social exclusion are important primary prevention targets, more immediate steps are needed to influence local environments and current health determinants. Children and families remain the chief targets for intervention; however, the challenge to change deeply ingrained cultural habits in a climate of cheap, easily accessible food in a country where outdoor activities are not universally embraced remains immense. As True (2005) concludes in her review of overweight children in Scotland, government can play a key role in changing the obesogenic environment but it will take an advocacy movement to turn the tide of obesity.

The frameworks already set in place in Scotland offer a unique policy window in which to tackle obesity rates in a way not seen elsewhere in the EU. Tackling obesity across all population groups will require the linking of a range of policy strands to address the current challenges of increased alcohol consumption, low fruit and vegetable intakes, low activity rates and continued smoking, bringing them into a cohesive whole.

The contribution of rising alcohol consumption to obesity levels has not been sufficiently considered in policy terms. Whilst Scotland is attempting to reduce its mortality rate from coronary heart disease and lung cancer at a faster rate than other European countries, it is important to look at the increasing death rates in Scotland from cancer of the oesophagus and liver cirrhosis, which have not shown equivalent increases elsewhere. Both of these diseases are related to rising alcohol consumption. It may be prudent for policy makers to consider the commonalities and synergies between the food and alcohol strategies, which are both seeking to reduce consumption levels. For example, supermarkets are now a major retail outlet for off-licence sales of alcohol, with the big six supermarkets accounting for around 80% of these sales. Supermarkets are not subject to restrictions on alcohol promotions, and low price is a powerful driver behind rising alcohol consumption levels. Although alcohol was not a prime focus of the SDAP, the panel suggests that it ought to be factored into a renewed policy, given that both seek to reduce consumption levels and both require restraint and restrictions on choice – whether imposed or chosen.

177 WHO data Available: www.who.int/dietphysicalactivity/publications
There is, therefore, a pressing need for both action on obesity in Scotland and considerable political and public will to reverse this trend. Targets could be considered that aim to halt increases in the levels of obesity or bolder standards could be set which attempt to reduce levels. At the very least, a target to halt the rise in childhood obesity would appear to be essential. Scotland has an opportunity to be a front runner in this area, in terms of both target setting and achievement, but it will take clear commitment to tackle some of the specifically Scottish problems associated with poor childhood health, such as the high consumption of soft drinks and sweet foods. New legislation to restrict sales of confectionery and soft drinks in schools is to be applauded but reducing intakes will require much broader strategies tied to food production and food access, as well as new triggers for public action. Medical arguments alone will not drive change in population obesity levels: there needs to be significant shifts in policy and public opinion.

5.6 TARGETS AND INDICATORS

For a cross-cutting sustainable food and health policy, targets need to be realigned to reflect the broader set of policy goals of sustainable and healthy food production, supply and consumption and addressing inequalities (see Table 15).

The food-based targets might be improved if aligned with a few simple, health education messages, giving them more resonance with and relevance to the public. For example, eat more vegetables, drink fewer sugary drinks, eat confectionery and savoury snacks less often, and aim to stay at the same clothes size.

Targets for obesity are now being considered worldwide. In Canada, a target has been set to increase the proportion of Canadians having a normal body weight (BMI 18.5–24.9) by 20% by 2015. (In actual terms, this translates into a decrease in the number of people who are outside this range from 53.3% of the population to 44%.) In the USA, targets have been set to increase the proportion of people having a healthy weight, as well as reduce the prevalence of obesity from 23% to 15% of the population by 2010. Japan has set separate targets for children, older people, men and women and defines obesity as a BMI greater than 25; its targets are to reduce the prevalence of obesity in men and women to 15% and 20%, respectively, by 2010. Northern Ireland and England have set targets to halt the increase in obesity in children under the age of 11 by 2010. The panel believes that setting a target for halting the rise in obesity in children in Scotland is necessary to ensure political motivation to act swiftly in some of the policy areas previously discussed.
To address the policy goals of social justice and the reduction of health inequalities, the nutrient targets could be tailored to particular high-risk groups (e.g. children, those with cardiovascular disease) and/or the 15% of communities that are the most deprived.

Further discussion is needed on how best to weave the policy goal of reducing health inequalities into food and nutrient targets, while also retaining the overall population goals. There are a number of options that could be considered:

- Aim to decrease the proportion of all people in the population who have a high intake of a nutrient (e.g. fat intake greater than 40%) to zero in order to bring down the highest consumers.
- Target a reduction in the gap between highest and lowest groups, e.g. reduce the gap in the intake of high-fibre breakfast cereals between social groups by 10%.
- Aim to increase the proportion of people making a positive behavioural shift, e.g. increase to 50% the proportion of people over two years of age who eat three portions of vegetables a day or increase to 70% the proportion of those having two pieces of fruit a day.
- Set specific targets by deprivation quintile, e.g. increase the proportion of the population in the bottom SIMD quintile breastfeeding at six weeks from x% to x + 10%.

The advice of the working group on Monitoring Scottish Dietary Targets and other academics should be sought.

There are 68 national indicators supporting the UK government’s sustainable development strategy, including measures of consumption and production,¹⁸⁶ but none of these indicators address the development of sustainable food production systems. A Department for the Environment, Food and Rural Affairs (England) (DEFRA) study¹⁸⁷ assessed whether food miles were a practical, reliable and valid indicator of progress for the UK government’s Sustainable Farming and Food Strategy and the Food Industry Sustainability Strategy. It concluded that a suite of indicators was needed and that the single indicator of total food miles would be inadequate.

Targets can also be set with broader parameters. The USA takes a settings approach to specifying targets for nutrition and education in schools, worksites and primary care, to help monitor specific actions taken to improve dietary behaviour. Japan is unusual in setting several targets that are related to food literacy and culture; this is to identify some of the changes that are necessary or desirable to meet the nutritional targets. Japan’s targets include monitoring the proportion of the population who:

- are aware of optimal weight
- know the appropriate size of meals to maintain optimal weight
- eat balanced meals at least once per day in the company of two or more people and who spend 30 minutes or more per meal
- skip breakfast
- read nutrition labels
- desire dietary improvement (if diet is perceived to be a problem).

Section 05 Framing future policy

In Scotland, the targets to date have focused on the ultimate policy goal of improving intakes of specific nutrients and foods but ignored the more intermediate outcomes that are relevant in assessing the impacts of the range of SDAP actions and the wider determinants of food consumption and nutrition. A wider range of indicators relevant to monitoring food and health policy outcomes might include:

- food literacy – dietary knowledge and beliefs, attitudes, motivation to change, cooking skills, food purchasing skills
- food culture – where food is bought, the context in which it is eaten and how much is consumed
- food access – the prices of basic healthy foods, the cost of basic food items relative to other essential expenditure, access to appropriate retailing and catering outlets
- food supply – where key foods come from, what is produced versus what is eaten in Scotland, food imports versus exports.

Scotland has an excellent scientific community that can inform and advise on policy related to food, nutrition and diet. From an international perspective, it is clear that research commissioned by the health sector has helped to establish the evidence base for policy action on food and nutrition. For example, the panel noted the research that has been carried out in New Zealand on nutrition and the burden of disease and in the Netherlands on the health losses caused by foodborne diseases compared with those caused by poor nutrition. In Sweden, experts plan to investigate the potential savings that could be made with reductions in sick leave from work; and in Denmark, research is being carried out to calculate the costs of obesity and other nutrition-related diseases.\(^\text{188}\) Such calculations are useful not only for winning but also for retaining political attention.

Deficiencies in the monitoring of currently available data have already been addressed by the FSAS report and were noted above in Section 4. In the future, the new Scottish Public Health Observatory may be a useful partner for FSAS, to help monitor the wider determinants of food consumption. If a more focused and prioritised approach to effective policy action is developed, it might be appropriate for Scottish food policy and economic and social research advisory channels to have a better analytical capacity, to help weigh up the relative potential impacts of competing policy options.

Health impact assessment is another important analytical tool that is relevant to cross-sector policy development. In both Slovenia and Sweden, health impact assessments of agricultural policy have been carried out.\(^\text{189}\) Life-cycle analysis may also help make the links between nutrition, sustainability and the supply chain. Just as European directives and international standards are encouraging other industries to build environmental impact assessment into product design (encouraging recyclability not just post-use recycling to minimise waste),\(^\text{190}\) the supply chain might be required to assess the potential health impacts of its product specifications under different

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190 See the UN Environment Programme’s Life Cycle Initiative, an interagency international partnership. Available: www.uneptie.org
scenarios. Hazard Analysis Critical Control Point (HACCP) risk analysis is already applied widely in all food sectors (hastened, not least, following the Scottish *E. coli* outbreak).\textsuperscript{191} Nutritional science already lends itself to thinking about how diet and physical activity affect the life course at critical points;\textsuperscript{192} however, the twenty-first century will require an even closer refinement of nutrition policy, not only to include the goals of general health improvement but also the case for ecological sustainability.\textsuperscript{193} The panel suggests that this might provide a useful focus for new joint work between the Scottish Executive Departments of Health and Agriculture.

### 5.7 CONCLUSIONS

The situation that the SDAP sought to alter is immensely complex. The decade-long experience of the SDAP – which has yielded both ups and downs – suggests that the targets were ambitious, though warranted, but also that the delivery mechanisms were clearly not up to the task. However much goodwill was expressed, the facts are that the targets were overwhelmingly not met. But the panel was heartened by the continued desire of many stakeholders to learn from the first decade.

The panel judges that the new policy framework must allow for this complexity and accept that to change food and health requires cross-cutting and cross-sectoral work. Social goals have to accompany and be woven into health goals. In the discussions, a number of core foci emerged, which the panel believes the revised SDAP ought to address and which could give new direction. Food and public health policy has to be woven around the pursuit of:

- social justice
- sustainable development
- the realities of multilevel governance.

A number of possible priorities and options for setting targets were discussed. To centre the new policy framework on children and young people and on obesity would be timely. Both have the attention of policy makers and illustrate the complex issues raised by the SDAP – how to engage, how to change both ‘push’ and ‘pull’ factors, how to address the delicate issues concerning choice, personal responsibility and the role of the state. The panel is wary, however, of reducing the revised SDAP to just these two or a few other policy foci. The richness of the original SDAP lay, in part, in its broad range and its desire to address the needs of all Scottish society. In the next section, we discuss four themes, which we propose as the foci for a renewed policy framework.

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6 Moving forward

6.1 INTRODUCTION

The panel decided against producing a long list of recommendations, favouring instead the setting out of some strategic themes to indicate what it sees as the preferred ‘direction of travel’. The rich ideas emerging from the discussions held in the hearings and, for example, at the panel’s stakeholder meeting, suggest that a shortage of ideas for moving the agenda forward is not Scotland’s problem. This creativity warrants further harnessing. The intention is for policy makers and practitioners to work with the illustrative actions suggested here, to improve them and to translate them, if appropriate, into suitable goals for each level and sphere of responsibility.

The first theme is closer integration between the policy goals of improving Scotland’s diet-related health and those of social justice, sustainable development and agriculture.

A good diet requires not only a decent environment to ensure a sustainable food supply but also a food culture that reinforces sound health. Fusing nutrition, wider public health and sustainable development policies is a key to the future.

Over the coming years, sustainability criteria will become more important in diet and health improvement policy. The quality of Scotland’s food production and supply will be judged not only in economic terms but also in terms of its impact on public health and the environment. Scotland should anticipate this driver and transform the SDAP into a new sustainable food and health policy to bring together and harmonise food production, supply and consumption to meet the policy goals of sustainability and public health.

Some illustrative actions that might follow this theme are outlined below:

- Policy must set out to simultaneously enhance and protect the longer term sustainability of land, habitat, living space and the built environment in terms of health. ‘Bolting-on’ an environmental feature here or there to nutrition targets is not enough. Policies need to be judged on how and whether they contribute to ecological public health.
- There needs to be closer political liaison at Cabinet level to make Scotland’s food supply, as well as its diet, greener. (‘More greens consumed from greener sources!’)
- There needs to be a deeper policy integration at national level led by Health Scotland and the Scottish Executive Environment and Rural Affairs Department.
(SEERAD). Public policy and science need to address where in the supply chain that nutrients come from and how.

- There is a need for further exchange with other countries on how to blend environmental and public health goods. To that end, a small countries’ alliance on food and health should be created (possibly a Nordic, Celtic and, perhaps, Baltic alliance) to share experience and thinking.
- Scottish Parliamentary Committees (Environment and Rural Affairs and Health) should routinely conduct inquiries on an integrated basis. They need to help explore how the integrated policies may be better delivered and difficulties surmounted.
- The Scottish food and drink strategy should include clearer sustainability and health goals that are linked.
- A Scottish food supply chain body should be designated to liaise with Health Scotland and SEERAD on how better to integrate nutrition and sustainability.
- Environmental health departments and directors of public health must make renewed efforts to integrate work at the local level. New liaison structures are needed, bringing in other expertise.
- New tools, such as joint health and environmental impact assessments, need to be developed. These will have a wide range of uses, from the auditing of funding streams to actual service delivery.
- There is a need for a cross-sector Scottish food alliance of existing civil society bodies to address nutrition, wider public health and environment/sustainable development issues. Its function should be to increase pressure on state bodies and industry and to act as a public voice for the delivery of both human and environmental health.
- There is a need for an alliance of professional bodies to be a stronger voice in Scottish food and farm policy. For instance, they might host special sessions at conferences to discuss barriers to and opportunities for ecological public health practice within their sphere of influence.
- There needs to be a commitment to more research and development to ensure that Scotland is at the forefront of emerging markets demanding healthy, locally sourced food of high quality, which is also convenient to buy, cook and serve.
- Building on the efforts of the working group on monitoring Scottish dietary targets, a system for monitoring achievement of the dietary targets (food and nutrients), broken down by socioeconomic group, should be supported and its output made available for use across all sectors.
- Multidisciplinary team research across institutions should be encouraged.

The second theme is the centrality of the principle of equality.

The commitment to deliver social justice was much rehearsed and discussed with the panel and is widely researched. Scotland has become richer but is highly divided. This is shown in diet, as in other areas. The panel welcomed the strong support for health inequalities as a key over-riding issue to be tackled in Scotland. It noted the good quality of the evidence, which gave a consistently sober picture of Scotland’s wide inequalities in health. But, just as with the first theme above, the challenge is how to turn a commitment in one area of policy into a usable form in other areas. This requires a change of policy mindset. Food poverty reduction is part of the picture; however, a reduction in the gap between the most and least affluent is more than that. Inequality reduction requires deft policy footwork, clarity of purpose and strong commitment at all levels – national to local. Victim blaming must be avoided. The ‘wrong consumers’ analysis can begin to take control. A ‘top-down’ desire for
behaviour change can be resented, easily subverted and lastingly resisted. Some unhealthy features of Scotland’s diet are deeply rooted. Different and more positive goals need to be set, stressing the advantages of a changed diet: better quality of life, longer good health, less strain on healthcare services and more pleasure.

Some illustrative actions, which give a high priority to inequality reduction, are suggested below:

- Existing health and other policies should be recast to help deliver inequality reduction or justify failure to deliver.
- All proposals, projects, funding streams and research should be judged on how they are likely to help the goal of inequality reduction.
- A consensus conference should be held with all of Scotland’s researchers and relevant stakeholders to translate nutrition targets into inequality-specific terms, reporting this directly to ministers.
- State-funded enterprise bodies which are working to improve the supply chain using ‘conventional’ business criteria should be asked to include inequality reduction in their organisational objectives for food work and project funding.
- Companies throughout the food supply chain need to help break the cultural reinforcement of poor diet. To achieve this, they should be encouraged to move away from underlying negative health messages in their marketing and sponsorship strategies, using legislation if necessary.
- Companies need to be reviewed by public health bodies to identify how their products contribute to inequalities of access, availability and affordability in food supply.
- Health promotion messages need to be recast to support all individuals in making considerable dietary change, especially those on low incomes.
- Researchers need to be asked the best way to deliver nutrition targets that are appropriate for different social groups.
- Existing representative bodies need to be encouraged to engage with the new food and health agenda, and given opportunities at central and local levels to participate in framing policy.
- The voluntary sector generally needs to be more ‘noisy’ regarding food and low-income issues. Bodies such as the Scottish Consumer Council, Scottish Council for Voluntary Organisations and Child Poverty Action Group need resources to help facilitate a better understanding of the lessons that can be learned from local, short-term projects.
- Local food committees need to be created to gather local intelligence, ideas and feedback to help in community planning. Such bodies should provide a local sounding board as well as offering opportunities for engagement with ‘ordinary’ citizens. If no suitable body exists to take on this role, a committee or body should be steered by the directors of public health with local authorities.
- The FSAS, SEERAD and Health Scotland should undertake to review two key nutritional goals – the increased consumption of (i) fruit and vegetables and (ii) fish – and consider how nutritional advice, translated into inequality terms, might be formulated to help consumers meet those goals sustainably as well as nutritionally.
- Reducing the high intakes of sugared soft drinks by young people across Scotland must be seen as a priority, and a soft-drink action plan should be formulated that makes clear demands of local authorities through their role in education and the management of leisure facilities and public places.
The third theme is the need to re-establish the grounds for engagement with the food industry in Scotland so that public health and sustainability are key drivers for food production and supply.

Scotland’s food and drink strategy needs to give higher priority to public health nutrition. The current food and drink strategy (in place since 1999) places the highest priority on conventional business goals such as profitability, innovation and the pursuit of markets. Understandable though this is in market terms, it consigns health to the margins of supply chain dynamics.

However, improvements in the health of Scottish consumers are everyone’s business. Health is too important an issue to be considered a low-priority driver or something that is marketable only to the ‘worried well’ or affluent, or as a ‘niche’ sold in a few square feet of a food shop or as lines on the foodservice menu. Health and social justice have to be drivers throughout.

Industry has argued for too long that there is no such thing as unhealthy foods, only unhealthy diets, and that the answer is moderation. Arguing that it only sells what consumers buy perpetuates policy divisions and tacitly blames consumers for diet-related ill-health. The strength of the food offer is part of what reinforces and, over time, helps shape food culture. Helping to break the cycle for all income groups is also a responsibility of business.

The analysis that now ought to inform Scottish food supply is that all sides, sectors and interests need to move in the same direction to promote good dietary attributes and reduce the bad. If Scotland’s food culture is to change, the quality and nutritional value of the food grown, processed, retailed and catered in Scotland will have to alter. The ‘push’, as well as ‘pull’, will have to change. This is why the panel argues that all sides of the food and health triangle – state, supply chain and civil society – need to move in the same direction. However, this is not happening. The evidence for this failure lies in poor diet-related health.

Some illustrative actions, which would put health at the heart of the supply chain, include:

- Government must be prepared to ‘name and shame’ company performance on (ecological) public health nutrition grounds.
- Massive efforts are required to dramatically and quickly increase the sales and distribution of fruit and vegetables. Scotland could set and vigorously market rising targets to reinforce the step-change that is needed.
- Restrict food advertising where necessary and consider the role of food and drink sponsorship in popular culture.
- Make it the responsibility of the supply chain to ensure that the food on offer is consistent with health messages. This is a particular opportunity for public procurement to set best practice.
- Over time, move towards the consistent promotion of a healthy diet and foods that people should be encouraged to consume. There need to be clearer ‘markers’ of foods that should be avoided and foods of which far more should be consumed.
- More unity of purpose and alliance work is required by public health and nutrition professions in Scotland. The panel wants to see the role of the Food and Health
Alliance clarified and given a clear focus. It should be chaired by an independent person.

- The SFHC needs a tougher and more directed role. The SFHC should build on best practice internationally. It should be more than a stakeholder body (an umbrella with undefined purpose but bringing together many interests). It ought to be given a sharper focus to enable it to consider existing supply chain policy and advise on where health gain could be pursued.
- The role of the Scottish Food and Health Coordinator needs to be extended, so that it is part watchdog on behalf of food and health strategy, part auditor of progress and part advocate for embedding food and health goals across government. This role should accompany the sharper focus suggested for the SFHC, and the improved scientific advice and research base (see below).
- We need to develop good-quality, appropriate training on nutrition and health for workforces throughout the supply chain. Already a goal of the SDAP, this should be enhanced by linking it to sustainability training, based perhaps around life-course thinking and responsibilities. Learning from international experience, education bodies should be asked to help develop such training, including work-based, web-based training for all levels of the workforce.

The fourth theme is the need to develop new governance structures, institutions and leadership at all levels.

There is already a strong policy commitment to food-related health improvement across all levels and sectors/departments. This needs to be accompanied by the fostering of a more active and engaged leadership at community and international (especially European) level that advocates for changes in food for both health and sustainability. Whether the vehicles for change are legislation or voluntary measures, and whether the aim is for a slow incremental or a faster step change, food alliances need to be supported by leadership at the top political level and right across the relevant professions and organisations. National and local health improvement strategies require clear signals from government, together with engagement at all levels.

Scotland’s recent big advances have occurred when government has been prepared to push for big changes – in breastfeeding, school meals and tobacco. Food culture will not change unless engaged with rather than having changes imposed. People must be prepared to speak out for health. The panel believes that government must be prepared to take legislative action, allowing the democratic process to provide accountability and best evidence. When there is a combination of good evidence, leaders prepared to listen and take risks against strong vested interests and ideological resistance, as well as a pubic health movement that is prepared to engage and work to a common goal at all levels, health gains can follow.

The case for such leadership and engagement is strong. The national profile of Scotland’s food and health is unacceptable and radical change is needed. Fine-tuning and ‘projectitis’ are not delivering the necessary shift. To move the entire food system in a healthy direction will take time and will need stakeholder support, but the step change sought by the panel requires precisely such leadership in order to break the logjam.
Some illustrative actions, which promote strong leadership, engagement and legislative support for public health nutrition measures, include:

- Government must be prepared to invest in good health, even when the possible outcomes may be far into the political future.
- Government must be prepared to defend the rights of all citizens to have access to a healthy diet, even if this restricts choice for some.
- Clearer and simpler population-targeted nutrition goals must be endorsed to reduce inequality, and they must appeal to civic- and society-wide rather than individualised values.
- Government must be prepared to be bold on food and health issues, without waiting for the rest of the UK.
- Government should take heart from advances and initiatives in other small affluent countries, drawing on the suggested small countries’ European alliance to facilitate the international exchange of ideas (see first theme). Scotland is not alone in facing considerable challenges in shifting its food supply and culture in a health-enhancing direction, or in having lessons that it can share.
- Implement obesity targets. The prevention of further rises in obesity is a matter of urgency. This requires a clear commitment to a national advocacy strategy to reverse the culture of poor diet and inadequate physical activity and to build an environment in which the opposite becomes the norm.
- Make a more focused use of Scotland’s research base to inform policy making. The strong research and academic capacity in Scotland should be harnessed more effectively to support the new sustainable food and health agenda. This should include support for the monitoring of progress to dietary targets and the dissemination of information.
- Form a new scientific advisory committee. A new committee for the UK should be hosted by Scotland, drawing on UK-wide expertise. This would focus on translating sustainability and nutritional advice into behavioural terms, thus complementing the work of the Scientific Advisory Committee on Nutrition. It would research, monitor and advise on consumer dietary behaviour, through the ecological public health prism of a new sustainable food and health policy.
- Agree a new concordat between health bodies so that they speak with a unified voice on sustainable food and health matters. This concordat between the SEHD, Health Scotland, the FSAS, SEERAD and other relevant bodies should ensure that each has specific roles in food and health so that effort is not duplicated.
- Redouble efforts to provide basic nutrition training on the core messages for all public sector staff.

6.2 CONCLUSION

Scotland’s current national dietary profile is still unacceptable and the pace of improvement too slow. With obesity levels rising fast, the case for step change is strong. There is already a strong commitment to cross-government action to improve health and sustainability, as well as a strong political will to achieve economic, social and health improvements in a devolved Scotland. Forging alliances across government and civil society, and at national, local and international level, are essential. To shift the entire food system in a more health-enhancing direction will take time. The task
moving forward may appear daunting but the panel believes that Scotland has much in its favour to help tackle the problems, not least a political commitment to health improvement and sustainable development goals, with the foresight and courage to take legislative measures where necessary. As a small nation in Europe, Scotland has the opportunity to lead the way on food and nutrition policy, building on the lessons learned over the past 10 years.
## Appendix 1: Policy statements relevant to food and health, 1990–2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Body</th>
<th>Publication title</th>
<th>Type of document</th>
<th>Purpose [comment]</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1991</td>
<td>Scottish Office</td>
<td><em>Health Education in Scotland</em></td>
<td>Policy statement on health education</td>
<td>Set reduction targets for key causes of death, e.g. coronary heart disease, cancer</td>
</tr>
<tr>
<td>1992</td>
<td>Scottish Office</td>
<td><em>Scotland’s Health: a Challenge to Us All</em></td>
<td>Policy statement</td>
<td>Scotland’s poor health record in need of action; coincided with publication of Health of the Nation by Department of Health in England</td>
</tr>
<tr>
<td>December 1993</td>
<td>Scottish Office</td>
<td><em>Scotland’s Health: a Challenge to Us All: the Scottish Diet</em></td>
<td>James Report</td>
<td>Set 70+ targets [including 40+ dietary targets]; SDAP created</td>
</tr>
<tr>
<td>1993</td>
<td>Scottish Office</td>
<td>Consultation document on the Scottish Diet report</td>
<td>Consultation</td>
<td>Consultation on what to do</td>
</tr>
<tr>
<td>November 1994</td>
<td>Scottish Office</td>
<td><em>Scottish Diet Action Plan working party created</em></td>
<td>Creation of structure</td>
<td>Translate James report into actions</td>
</tr>
<tr>
<td>1996</td>
<td>Scottish Office</td>
<td><em>Eating for Health: a Diet Action Plan for Scotland</em></td>
<td>Chaired by Health Minister</td>
<td>Targets to 2005 to change consumer demand, food supply, training and education, influences on diet</td>
</tr>
<tr>
<td>1998</td>
<td>HM Government</td>
<td><em>Food Standards Agency – A Force for Change</em></td>
<td>White Paper, leading to Act</td>
<td>Outlined plans and purpose for establishment of FSA and FSA Scotland</td>
</tr>
<tr>
<td>2000</td>
<td>Scottish Executive</td>
<td><em>Our National Health: a Plan for Action, a Plan for Change</em></td>
<td>Action plan</td>
<td>Set out in more detail how the broad commitments in <em>Towards a Healthier Scotland</em> would be achieved</td>
</tr>
<tr>
<td>2001</td>
<td>Scottish Executive</td>
<td><em>A Forward Strategy for Scottish Agriculture</em></td>
<td>Agricultural policy</td>
<td>Rural development, farming, environment, competitiveness [nothing on health except safety]</td>
</tr>
<tr>
<td>2001</td>
<td>Food Standards Agency Scotland</td>
<td><em>Strategic Plan 2001–2006: Putting Consumers First</em></td>
<td>Plan for the new FSA regarding safety and nutrition</td>
<td>General duty to help consumers improve their dietary health led to the strategic framework for FSA on nutrition, to reduce inequalities and promote long-term dietary improvement</td>
</tr>
<tr>
<td>2002</td>
<td>Scottish Executive</td>
<td><em>Building a Better Scotland</em></td>
<td>Spending review</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>Scottish Executive</td>
<td><em>Improving Health in Scotland – The Challenge</em></td>
<td>Strategic framework for health improvement policy</td>
<td>Set health vision to 2020; new framework for health improvement; four pillars [early years, teenage transitions, workplace, communities] and seven special focus programmes, including diet/healthy eating</td>
</tr>
<tr>
<td>2003</td>
<td>Scottish Executive</td>
<td><em>Organic Action Plan</em></td>
<td>Action plan</td>
<td>Goal to produce 70% of Scottish needs by doubling acreage and home-grown produce</td>
</tr>
<tr>
<td>2003</td>
<td>Scottish Executive</td>
<td><em>A Strategic Framework for Scottish Aquaculture</em></td>
<td>Strategic framework</td>
<td>Most emphasis on sustainability but fish consumption specified among ‘healthier eating options’; created Healthy Seafood Eating task force</td>
</tr>
</tbody>
</table>

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Appendix 2: Food and health improvement infrastructure and workforce in Scotland

CHEX, Community Health Exchange; CMO, Chief Medical Officer; CoSLA, Convention of Scottish Local Authorities; FSAS, Food Standards Agency Scotland; HI, Health Improvement; HPS, Health Protection Scotland; ISD, Information and Statistics Division; LGIS, Local Government Improvement Service; LTS, Learning and Teaching Scotland; NES, NHS Education for Scotland; QIS, Quality Improvement Scotland; SCC, Scottish Consumer Council; SCDC, Scottish Community Development Centre; SCVO, Scottish Council for Voluntary Organisations; SHPSU, Scottish Health Promoting Schools Unit; VHS, Voluntary Health Scotland.
Appendix 3: Dietary change in Scotland, 1996–2004

This Appendix provides a summary of the information reviewed by the panel regarding dietary trends over the period 1996–2003/04, before receiving the FSAS report on dietary targets by Wrieden and colleagues.195 The panel reviewed evidence from a number of sources over the course of 2005/06 as part of its deliberations.

DATA AVAILABLE ON DIETARY TRENDS IN SCOTLAND

For the *The Scottish Diet* (1993) report, data on the intakes of foods and nutrients in Scotland were gathered from a variety of sources. These sources included:

1. the Dietary and Nutritional Survey of British Adults (1986/87) (Scottish sample n = 190)
2. annual Household Budget Surveys conducted by the Ministry of Agriculture Fisheries and Food (1990)
3. data from the Scottish Heart Health Study
4. data from the Scottish MONICA study
5. data from the Cardiovascular Epidemiology Unit in Dundee (1984–1986)
6. data produced by Safeway based on food purchases by region, taken from a number of commercial data sources
7. data prepared for the British Nutrition Foundation Task Force (1992) (for fatty acid intakes)

*The Scottish Diet* report was assembled using data that was primarily obtained up to 1990, with some additional evidence of reductions in the intakes of fruit and vegetables, bread and potatoes from 1990 to 1992. The SDAP targets were based on the evidence collected for this report; however, progress to SDAP targets is now measured using 1996 data, to allow for the inclusion of National Food Survey (NFS) data (from 1994) on eating outside the home and because a standardised method to calculate food consumption and nutrient intake from NFS data has been established for data from 1996 onwards.

In 2005/06, in part to contribute to the present review, a paper was commissioned from the working group on Monitoring Scottish Dietary Targets to provide population trends over the last 10 years for the food and nutrient targets specified in the SDAP, broken down by demographic and socioeconomic indicators. The panel is very grateful to the FSAS and Wrieden and her colleagues whom the FSAS commissioned.

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Appendix 3 Dietary change in Scotland, 1996–2004

to prepare this detailed and comprehensive report, which has now been published.\textsuperscript{196}
This report summarises current food consumption and nutrient targets from a number of key sources:

2. National Diet and Nutrition Surveys (NDNS) of young people aged 4 to 18 years (1997) and adults aged 19 to 64 years (2001, \( n = 123 \))
3. Scottish Health Surveys (SHS) of adults aged 16 to 64 years (1995), and children aged 2 to 15 years and adults aged 16 to 74 years (1998 and 2003)

\textbf{ARE THESE DATA ADEQUATE FOR MEASURING PROGRESS IN REACHING SCOTTISH DIETARY TARGETS?}

Data used in this review were taken from four types of survey, all of which have their limitations. The NFS/EFS provide robust data on a large population group in Scotland over a 14 day period; however, this survey looks at food purchases and not food intakes, and does not measure the intakes of specific individuals. The timescale of data collection, sample size (approximately 600 households in Scotland) and annual reporting are strengths of this survey, but it cannot tell us about food intakes among population subgroups, may underestimate food wastage and may become less generalisable over time as the response rate for participation goes down. However, these data are presented here as the most robust measurement of potential dietary change at the national level.

The NDNS programme provides detailed individual intake data from seven day weighted studies of adults. The first NDNS survey in 1986/87\textsuperscript{197} provided data for The Scottish Diet report, and can indicate the number of consumers of a particular food group, as well as average (mean and median) intakes. More recently, data were collected from children and young people (1997)\textsuperscript{198} and from adults (2001/01).\textsuperscript{199} The disadvantage of these studies is that the Scottish sample size was small – typically less than 200 people – and data were not collected north of the Caledonian Canal for financial reasons. Although the 1986/87 data were collected well before the start of the SDAP and the 2000/01 survey occurred several years before the 2005 target date, these data can provide some background information on the proportions of consumers of different food items, which sheds some light on changing population trends and adds additional information to the NFS/EFS data.

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Data from the SHS\textsuperscript{200} have also been reviewed here. This survey collected data from a nationally representative sample of adults in 1995, 1998 and 2003 and therefore provides useful information on changes in the self-reported frequency of consumption of some foods. In addition, data were collected from children (aged 2–15 years) and adults (aged 65–74 years) in 1998, which provided some insight into age-related dietary differences. Whilst there is an additional emphasis in the most recent survey on fruit and vegetable intakes, the SHS has also changed the food groups that are included in the questionnaire, making direct comparisons over time more difficult.

Finally, data from the HEPS were reviewed.\textsuperscript{201} This survey provides an annual assessment of health improvement and has been carried out since 1996. HEPS interviews around 1800 adults (aged from 16 to 74) throughout Scotland each year, and provides some limited data on knowledge and attitudes to healthy eating, particularly fruit and vegetable consumption. The trend data this survey provides can indicate perceptions of eating among the population, which can highlight the effectiveness of nutrition messages.

Data from smaller studies within Scotland can also provide evidence of dietary change; a review of existing findings from the West of Scotland Twenty-07 study\textsuperscript{202} has been compiled as part of this review to provide a perspective on changes in diet and food access over the last 10 years at the level of the community/local environment.

A more detailed review of the data sources can be found in Wrieden et al. (2006). The SDAP targets are presented in Table 14.

PROGRESS IN REACHING SDAP FOOD TARGETS

Table A3.1 summarises in more detail the changes in the intakes of different food groups for which there were SDAP food-based targets. Data for the period from 1996 to 2004 has been assembled from the NFS (up to 2000) and EFS (from 2001) studies.\textsuperscript{203} The methodology change between these two studies may be responsible for some of the perceived intake changes.

**Fruit and vegetables**

Taking all of the available intake data into consideration, it appears that there has been little overall change in the total average fruit and vegetable intake in Scotland since the SDAP target was set. There has been a reduction in the amount of vegetables consumed and an increase in the amount of fruit and fruit juice. Further analysis shows that women consume more fruit and vegetables than men at all levels of deprivation except the lowest. Intakes of fruit and vegetables are substantially lower in groups in which deprivation is highest.

Appendix 3  Dietary change in Scotland, 1996–2004

Table A3.1 Changes in total average food intakes, a 1996–2003/04

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>All fruit and vegetables</td>
<td>249.1</td>
<td>260.8</td>
<td>258.1</td>
<td>247.7</td>
<td>233.6</td>
<td>256.7</td>
<td>262.8</td>
<td>245.8</td>
</tr>
<tr>
<td>Fruit (excluding juice)</td>
<td>90.3</td>
<td>97.2</td>
<td>91.3</td>
<td>90.5</td>
<td>88.5</td>
<td>90.2</td>
<td>94.8</td>
<td>93.7</td>
</tr>
<tr>
<td>Fruit juice</td>
<td>36.4</td>
<td>39.8</td>
<td>41.4</td>
<td>36.7</td>
<td>33.5</td>
<td>44.0</td>
<td>44.3</td>
<td>39.1</td>
</tr>
<tr>
<td>Vegetables (excluding baked beans)</td>
<td>119.8</td>
<td>121.5</td>
<td>122.5</td>
<td>118.1</td>
<td>109.1</td>
<td>109.3</td>
<td>110.3</td>
<td>102.6</td>
</tr>
<tr>
<td>Baked beans</td>
<td>2.6</td>
<td>2.3</td>
<td>2.9</td>
<td>2.5</td>
<td>2.5</td>
<td>11.5</td>
<td>13.6</td>
<td>10.4</td>
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<td>Fresh potatoes</td>
<td>99.0</td>
<td>89.0</td>
<td>78.1</td>
<td>84.9</td>
<td>83.6</td>
<td>79.1</td>
<td>70.3</td>
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<td>Processed potatoes</td>
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<td>38.6</td>
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<td>36.9</td>
<td>36.2</td>
<td>37.3</td>
<td>36.5</td>
</tr>
<tr>
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<td>132.9</td>
<td>131.6</td>
<td>122.2</td>
<td>127.5</td>
<td>122.0</td>
<td>126.0</td>
<td>124.2</td>
<td>116.3</td>
</tr>
<tr>
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<td>26.6</td>
<td>22.9</td>
<td>23.7</td>
<td>19.3</td>
<td>21.5</td>
<td>22.4</td>
<td>19.7</td>
</tr>
<tr>
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<td>99.3</td>
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<td>102.7</td>
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<td>96.2</td>
</tr>
<tr>
<td>All breakfast cereals</td>
<td>18.2</td>
<td>18.2</td>
<td>18.9</td>
<td>16.5</td>
<td>15.8</td>
<td>18.1</td>
<td>18.1</td>
<td>17.7</td>
</tr>
<tr>
<td>Wholegrain/high-fibre cereals</td>
<td>9.8</td>
<td>9.9</td>
<td>9.7</td>
<td>8.0</td>
<td>7.6</td>
<td>9.3</td>
<td>9.5</td>
<td>9.4</td>
</tr>
<tr>
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<td>84.5</td>
<td>75.5</td>
<td>83.0</td>
<td>68.4</td>
<td>77.6</td>
<td>73.3</td>
<td>75.2</td>
</tr>
<tr>
<td>Oil-rich fish</td>
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<td>36.0</td>
<td>36.0</td>
<td>36.7</td>
<td>31.4</td>
<td>28.4</td>
<td>32.0</td>
<td>32.1</td>
</tr>
</tbody>
</table>

From NFS/EFS data.

Data from Scottish NDNS participants collected in 1986/87 (n = 190) and 2000/01 (n = 131) indicated that the number of individuals consuming all types of fruit, with the exception of fruit canned in syrup, has gone up, particularly the number consuming bananas. Conversely, the number consuming some vegetable groups, such as peas, baked beans and other vegetables, has gone down. These data indicate changes in purchasing trends for different food items and support NFS data showing a reduction in vegetable consumption.

These changes in the intakes of some fruit and vegetable groups may be partly explained by the entry into the purchasing population of young people who have had very poor fruit and vegetable experiences. The NDNS study of 4 to 18-year-olds, conducted in 1997,\(^{204}\) reported that, whilst 94% of Scottish boys and 91% of Scottish girls ate chips during the recording period, only 20% of boys and 26% of girls ate any green leafy vegetables. Scottish boys and girls were significantly less likely to eat green leafy vegetables or green beans than those in England and Wales, with boys also less likely to eat salad or raw vegetables, and girls peas. This legacy may have an impact on current fruit and vegetable intake data.

A study of overall spending on fruit and vegetables in Scotland (2000/01–2003/04) including children’s expenditure and based on a sample of 2210 households) showed that, compared with the UK average, Scottish households spent less on fresh fruit, dried fruit and nuts, fresh vegetables and potatoes. Overall, the average weekly expenditure on fresh fruit and fresh and preserved/processed vegetables was £5.30 in Scotland, compared with £6.30 in the UK as a whole (and £7.40 in the south-east).\(^{205}\)

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Data collected between 1995 and 1998 as part of the SHS showed an increase in the reported consumption of fruit and vegetables by adults, from 2.2 portions per day to 2.9 portions per day. This increase is probably explained by the inclusion of fruit juice in the 1998 survey; it had not been included previously. Data from the 2003 survey showed that women ate 3.2 portions of fruit and vegetables a day, compared with 3.0 portions for men. Around 1 in 10 people claimed to have eaten no fruit or vegetables in the preceding 24 hours and around one-fifth claimed to eat five portions or more. The largest intakes were reported by those aged from 55 to 64 years, and the lowest intakes were among those over 75 and those between 16 and 24. In terms of the choice of fruit and vegetables, women were more likely to eat fruit, dried fruit, vegetables and salad. Vegetable and fruit consumption generally increased with age, fruit juice consumption was uniform across all age groups and salad was more likely to be consumed by those under 65 years.

The 2003 SHS showed strong relationships between fruit and vegetable consumption and deprivation indices, employment type and household income. Lower consumption was associated with semi-routine and routine work, being in the lowest quintile for income and living in the most deprived environments, whereas higher consumption was associated with living in more affluent areas and having higher incomes and managerial and professional jobs. These differences were particularly noteworthy among those aged over 65 in Scotland, compared with the same age group in England.

The HEPS provides data on the reported consumption of five or more portions of fruit and vegetables a day and trends over time between 1996–2004. These data are likely to reflect people’s perceptions of their diets as much as actual intakes. HEPS data suggest that there has been both an increase in the number of people reporting the consumption of five or more portions of fruit and vegetables a day (from 18% in 1996 to 33% in 2005) and a reduction in the number of people claiming to eat no fruit or vegetables a day (from 43% in 1996 to 27% in 2004). In 2004, the average intake of fruit and vegetables a day was 3.6 portions, increased from 2.8 portions in 1996, and reported consumption was higher among women (39% claimed to eat five or more portions a day compared with 27% of men), older respondents and those from higher socioeconomic groups. This survey did not record a decline in perceived fruit and vegetable intakes amongst those aged from 65 to 74; 38% of this group reported that they ate at least five portions per day. Over time, the numbers from the greatest areas of deprivation who reported eating five portions or more a day increased only slightly less significantly than those in the least deprived areas. One-fifth of those in deprived areas now claim to eat five or more portions a day, which may signify a real change in the perception of these foods, even if actual intakes are not this high in reality.

Data from the West of Scotland Twenty–07 dataset showed increases in the weekly consumption of fruit across all social classes between 1991 and 2000, and those in higher social classes, skilled manual and non-manual groups also increased salad intakes. No significant differences were found for vegetable intakes and few respondents overall met the SDAP target for fruit and vegetable consumption. The consumption of potatoes was significantly reduced among all but the highest social class group in this survey. Respondents from lower social classes appeared to increase their overall fruit consumption at a more marked rate than those in higher social classes, although, overall, the higher social class groups ate a better diet. Increased access to fruit in deprived areas through community action projects was hypothesised to have made a contribution to this reported change in consumption.
Appendix 3 Dietary change in Scotland, 1996–2004

People in Scotland do self-report eating more fruit and vegetables. This may be a reflection of actual increases in consumption that have not yet been observed in the national survey data. In January 2006, sales of fresh fruit and vegetables were reported as the only growth market in food sales by the Scottish Retail Consortium. Increases in the reported intakes of fruit and vegetables may also reflect an increase in the variety of fruit and vegetables consumed rather than larger quantities. There may also still be some confusion over what types of commodities constitute fruit and vegetables in the ‘five a day’ recommendation, and what quantity constitutes a ‘portion’. Market research data suggest that fruit consumption will continue to increase as the trend for consuming convenience foods and concerns over health influence consumers, but that consumption of potatoes and other vegetables is likely to continue a downward trend. The consumption of frozen vegetables, prepared vegetables and salads is also likely to increase, as consumer trends suggest there is an increased demand for foods that require little preparation.

Potatoes

The reduction in the overall intake of potatoes by 25%, instead of the SDAP target of an increase of 25%, appears to reflect a reduction in the number of potato consumers rather than in the amount eaten by those who did consume them. In total, 15% of Scottish adults did not eat nonfried or processed potatoes during the seven day NDNS recording period (2001). Data from the NDNS survey of 4 to 18-year-olds, collected in 1997, showed that a similar number (86%) of Scottish children consumed potatoes during the survey week. It may be the move away from unprocessed potatoes by younger consumers, in particular, that has made this target difficult to achieve. Analysis of the EFS (2001–2004) by the Scottish Index of Multiple Deprivation (SIMD) showed that consumption of fresh potatoes was highest in the most deprived quintile, where more fresh potatoes are used to make homemade chips. The least deprived households reported average intakes of potatoes of only 55g per week – almost half of the amount consumed, on average, in 1996.

Bread

Data from the NFS/EFS shows that both the average bread consumption and the intakes of brown and wholemeal bread have gone down over the past 10 years. Analysis of the EFS (2001–2004) by the SIMD showed that consumption of brown/wholemeal bread was highest in the least deprived quintile, but that total bread consumption was highest in the most deprived quintiles. Data from the SHS showed that the proportion of the population who reported eating at least two slices of bread a day decreased from 90% of men and 82% of women in 1995 to 85% of men and 70% of women in 2003. There has also been a decline in the proportion of women who eat two slices of wholemeal bread, from 35% in 1995 to 27% in 2003; however, there has been no change for men.

Data from the West of Scotland Twenty–07 study showed that, between 1991 and 2000, those from the higher social classes increased their intake of white bread. No other significant changes were observed but decreases in the intake of bread of

Data available: www.brc.org.uk
all types were noted in most social classes. Data from the NDNS suggest that the number of consumers of white bread has increased and the number of consumers of wholemeal and brown breads have decreased. Increase in white bread intake may reflect an increase in the purchase of speciality white breads.

**Breakfast cereals**

Whilst NFS/EFS data suggest little change in total intakes of cereals, the number of people consuming cereals and higher fibre cereals does appear to have increased. Analysis of the EFS (2001–2004) by the SIMD showed that consumption of all types of breakfast cereals was highest in the least deprived quintile. From SHS data, there appears to have been no consistent change since 1995 in the frequency or type of cereal consumed for either men or women. About 42% of men and 44% of women aged from 16 to 64 years reported eating breakfast cereals of any variety in 1995 compared with 43% and 45%, respectively, in 2003. The number who reported eating higher fibre breakfast cereal remained fairly constant between 1995 and 2003, at about 23% of men and 26% of women.

In the West of Scotland Twenty-07 study, those in all but the lowest social classes appear to have significantly increased breakfast cereal intake between 1991 and 2000, with those in the lowest social class group increasing intakes of sugary breakfast cereals. There was a significant increase in the consumption of wholegrain cereals among skilled manual workers but only some increase among the higher social class groups. Data on the number of consumers of breakfast cereal in the NDNS also show an increase in the numbers consuming all types of cereal.

**Oil-rich fish**

NDNS data (including canned tuna) suggest that more people ate oil-rich fish in 2000/01 than in 1986/87, whereas data from the NFS/EFS suggest that purchases of oil-rich fish have been static between 1996 and 2004. Analysis of the EFS (2001–2004) by the SIMD showed that consumption of oil-rich fish was highest in the least deprived quintile. In a reanalysis of data from the West of Scotland Twenty-07 study, it was reported that those from the highest social group, those from skilled non-manual occupations and those from the lowest social class group all increased their intake of oil-rich fish, with half of all respondents in this study achieving the SDAP target for oil-rich fish consumption.

Data from the SHS show a decrease in the proportion of the population who reported eating white fish at least once a week, from 54% in 1995 to 44% in 2003 among men and from 53% to 40% over the same timescale in women. Fish consumption is highly associated with age, so this may reflect a cohort effect and a reduction in the consumption of fried white fish in particular. In the 2003 survey, subjects were asked if they ate oil-rich fish once a week or more, and approximately 20% of adults across all social class groups claimed to do so. Reported consumption rates were higher among those in less deprived households (28% of men and women in the least deprived quintile reported eating oil-rich fish once a week compared with 17% of...
Appendix 3 Dietary change in Scotland, 1996–2004

men and 15% of women in the most deprived quintile). In the 2003 children’s survey, specific questions were asked about the frequency of consumption of white fish, oil-rich fish and canned tuna. About 33% of children reported eating white fish at least once a week, whereas fewer than 10% of children reported eating oil-rich fish this frequently. Almost 20% ate tuna weekly. Girls were greater consumers of tuna and boys of white fish.

Data from household food panels show that 60% of Scottish households buy fish at least once a year; this implies that 40% of Scottish households do not buy fish to eat at home. Intakes of herring and mackerel are low and stagnant, and consumer perceptions of these as a ‘poor’ food, as well as a dislike of heads, tails, bones and skin, are significant barriers to increasing consumption.210

The general consensus from all of the data examined is that the SDAP food targets have not been achieved in 2005 and the panel is doubtful that these will be met in the newly extended timeframe of 2010.211

PROGRESS IN REACHING NUTRIENT-BASED TARGETS

More detailed breakdowns of changes in nutrient intakes over the past 10 years, taken from NFS/EFS data, are shown in Table A3.2.

Fat

Comparisons of EFS data for 2000/01 with NDNS data collected in 2001 from 123 people in Scotland show some differences in average nutrient intakes, with lower total energy, fat (35% of food energy), saturated fat (13.3% of food energy) and NME sugar intakes (10.9% of energy) seen in the weighted NDNS study. This may reflect under-reporting in this study or poor assessment of waste in the EFS study. Without other comparable NDNS data to examine trends, the NFS/EFS data remain the most valid for looking at trends over time but should be viewed with some caution. Small changes in the percentage of energy obtained from fat were observed between 1996 and 2004 but this is likely to be caused by a swing in the sugar–fat seesaw, as intakes of NME sugars increased. Intakes of saturated fat, complex carbohydrates and fibre appear to have remained relatively steady according to this data set. Analysis of the EFS (2001–2004) by the SIMD showed that the most deprived quintiles consume more processed meats and sausages and more whole milk; however, no significant differences in fat and saturated fat intake were noted by deprivation. The higher intakes of fat from meat products and milk are likely to be balanced out by higher intakes of carbohydrate from bread and soft drinks, which are also consumed in significantly higher quantities by those in the most deprived areas.

Carbohydrates

There has been no change in the intake of carbohydrates in the form of starch and sugars from fruits, vegetables and milk. An increase in the intakes of these types

of sugars would have followed increases in the consumption of bread, potatoes, breakfast cereals and fruit and vegetables; however, such increases have not been observed. There has, however, been an increase in the amount of sugars consumed over the past 10 years, with the most deprived quintiles having the highest intakes of sugars: the proportion of energy intake provided by nMe sugars was significantly lower (13.9–15.3% of food energy) in the least deprived quintile compared with the three most deprived quintiles (15.7–17.2% of food energy). A target of the SDAP was to reduce the average intake of nMe sugars among children to 10% of food energy. The most recent available data on intakes of nMe sugars comes from the NDNS study of Scottish children aged from 4 to 18 years, which was published in 2000:

The average consumption of sugar-containing soft drinks in the most deprived households was nearly 300 ml per person per day, compared with 190 ml in the least deprived households. Intakes of other sweet foods, such as cakes, biscuits and confectionery, showed less variation by deprivation. In Scotland overall, soft drinks are the greatest contributor to sugar intakes, with confectionery being the second highest source and lager and beer the third.

Data from the EFS on the types of food that are consumed when eating out in Scotland (2001/02–2003/04) show an increase in the purchase of soft drinks over this period, with increases in both low calorie and non-low calorie carbonates and still drinks, as well as fruit juices. The average consumption of sugar-containing soft drinks in the most deprived households was nearly 300 ml per person per day, compared with 190 ml in the least deprived households. Intakes of other sweet foods, such as cakes, biscuits and confectionery, showed less variation by deprivation. In Scotland overall, soft drinks are the greatest contributor to sugar intakes, with confectionery being the second highest source and lager and beer the third.

### Table A3.2 Summary of NFS/EFS total nutrient intake data, 1996–2004.

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<td>79</td>
<td>79</td>
<td>76</td>
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<td>81</td>
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<tr>
<td>% energy</td>
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<td>37.8</td>
<td>37.9</td>
<td>37.4</td>
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<tr>
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<td>33</td>
</tr>
<tr>
<td>% energy</td>
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<td>69</td>
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<td>84</td>
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<tr>
<td>% energy</td>
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<td>14.1</td>
<td>15.7</td>
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<td>10</td>
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<td>135</td>
<td>138</td>
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<td></td>
<td></td>
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<td>8.2g</td>
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</tr>
</tbody>
</table>

*Data are expressed as units per person per week.*

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Appendix 3 Dietary change in Scotland, 1996–2004

The high consumption of soft drinks in Scotland is also highlighted in other surveys. Scottish households spent £3.60/week on chocolate and soft drinks in 2001/02–2003/04, compared with a UK average of £2.80. Data from the survey of Health Behaviour in School-aged Children,\(^{213}\) carried out in 2001/02, showed that Scottish 13-year-olds were the greatest consumers of sugary drinks among the cohorts studied, with 51.6% of boys and 44.9% of girls drinking sugary drinks daily. By comparison, in Finland, one of the other countries in this survey, only 11.3% of boys and 5.9% of girls reported drinking sugary drinks every day. Similarly, the consumption of sweets in Scotland in this study was also higher than that reported elsewhere, with almost half of all 13-year-old boys and girls eating sweets daily. The panel suggests that it is very unlikely that the target for reducing the intake of NME sugars among children will be met unless large reductions in soft drink and confectionery consumption can be achieved.

Data from the most recent National Dental Inspection\(^{214}\) show that there has been no meaningful improvement in dental health in Scotland since the late 1980s. The overall estimate of decay experience in five-year-olds in Scotland is 2.76 teeth, considerably higher than in England (1.47) and Wales (2.26). Within Scotland, those areas with the worst dental health among children are Argyll and Clyde, Greater Glasgow, Lanarkshire and the Western Isles, where five-year-olds have three or more teeth with decay experience. This can be compared with an average of just under one decayed tooth per child in fluoridated areas of Ireland. The authors of this report conclude that the impact of fluoride toothpaste has penetrated as far as possible, and that a more positive attitude to health is needed in Scottish society to make further impacts on Scottish dental health. Reducing sugar and soft drink consumption in Scotland will make a considerable contribution to improving dental health.

**Salt**

Urinary sodium output is the measure of choice for estimating dietary sodium. Data from 90 Scottish individuals, who completed a 24 hour urine sample as part of the 2000/01 NDNS,\(^{215}\) showed that salt intakes among adults in Scotland were higher than elsewhere in the UK. Average intakes were about 13.2 g per day for men and 8.2 g per day for women, compared with a national average of 9.5 g per day and a recommended intake of 6 g a day. It could be hypothesised that salt intakes will be higher in more deprived households who eat greater amounts of bread, processed meat and sausages and takeaway foods. However, there is currently little available data on salt intakes and sources of salt in Scotland, despite the importance of higher salt intakes as a risk factor for hypertension and heart disease.

**CONCLUSION**

The panel concluded that, for the most part, current dietary patterns appear to be making no move and, in some cases, they appear to be moving in the opposite direction to that desired by the SDAP. Based on current evidence, it is unlikely that...
substantial increases will be observed in the next five years unless there is a significant acceleration of policy initiatives to promote greater intakes of these commodities. Whilst it may well be that modest increases in some of the healthier food commodities are now taking place, and these may well be observed in changing food intake data over the next decade, it could be speculated that increases in the intake of healthy foods on some occasions are matched by increases in the intakes of higher fat, sugar and salt ones on other occasions, maintaining the status quo but with a general feeling of dietary improvement. The panel believes that, within the context of better food availability and access that has already been discussed in this report, clear and consistent ‘eat more’ messages, as well as ‘eat less’ messages, will be needed if any progress is to be made in achieving the targets.