



Policy options to prevent child obesity

**Stakeholder consultations
carried out in the context of the project on**

*Children, obesity
and associated avoidable chronic diseases*

led by the European Heart Network

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Background and Summary

Child obesity is increasing rapidly in virtually all the Member States of the European Union and in the wider European region. This is a relatively recent phenomenon, with little evidence of any change in the prevalence of childhood obesity before the early 1980s, and signs of a rapid increase in prevalence during the 1990s and early 2000s.

An obese child faces a lifetime of increased risk of various diseases, including cardiovascular disease, diabetes, liver disease and certain forms of cancer. Even during childhood, obesity increases the risk of these diseases, and is a significant cause of psychological distress.

At present, paediatric services have few treatment options available. Once a child is substantially overweight, successful weight loss is difficult to achieve, as it is for adults, and requires intensive health care resources. Prevention of obesity is to be preferred, for the child's sake as much as for the social and economic costs that otherwise ensue.

In March 2004, the European Heart Network (EHN) started a 32-month project on "Children, obesity and associated avoidable chronic diseases" (CHOB). The aim of the project is to contribute to tackling the obesity epidemic among children and young people. The first phase of the project, March 2004 to February 2005, concentrated on the marketing of unhealthy food to children, not because this is the only reason why children are getting fatter, but because it is clearly part of the problem and is of growing interest in European policy circles. Information was collected on the extent and nature of food marketing to children in 20 European countries and on existing measures (legislation, voluntary agreements, codes, interventions, etc) at national level with regard to counteracting the effects of food marketing to children. Phase two of the project, from March 2005 to November 2005, was dedicated to disseminating the results of the data collection which were published in a report on "The marketing of unhealthy food to children in Europe". During the last phase of the project, phase three, running from December 2005 to October 2006, a Europe-wide stakeholder consultation on policy options took place with a view to achieving consensus on a small number (five) of policy options to be achieved as priorities within the participating European countries as well as at a European level.

This report establishes the fact that the awareness of the problems is high and that various national and international measures are being proposed. It discusses the options available, tools for selecting policy options, international and national approaches as well as the results of the Europe-wide stakeholder consultations' assessment of policy options carried out in the framework of the CHOB project.

A large number of environmental (macro and micro) influences on diet, food and physical activity and a significant number of policies for preventing childhood obesity have been identified. Of these, the CHOB consultation focused on 20 policy options.

Notwithstanding the differing natures of the participating organisations and the different contexts in which the CHOB stakeholder consultations took place, there was considerable agreement on the top five priorities across countries. Overall, participants recognised the need for both upstream and downstream interventions. They also recognised the need for a combination of policies covering a range of different types of options: educational (for children, parents and professionals), informational (labelling, marketing), and modification of the physical environment and the food supply chain (including food services in schools etc.).

The ten policy options that scored highest in the consultations were:

- Food and health education: Include food and health in the school curriculum;
- Controlling sales of foods in public institutions: Controls on the provision and sale of fatty snacks, confectionery and sweet drinks in public institutions such as schools and hospitals;
- Controls on food and drink advertising: Controls on the advertising and promotion of food and drink products;
- Subsidies on healthy foods: Public subsidies on healthy foods to improve patterns of food consumption;
- Change planning and transport policies: Encourage more physical activity by changing planning and transport policies;
- Improve communal sports facilities: Improve provision of sports and recreational facilities in schools and communities;
- Improve training for health professionals: Improve training for health professionals in obesity prevention and diagnosing and counselling those at risk of obesity;
- Improved health education: Improved health education to enable citizens to make informed choices;
- Common Agricultural Policy reform: Reform of the EU's Common Agricultural Policy to help achieve nutritional targets;
- Mandatory nutritional information labelling: Mandatory nutritional information labelling for all processed food, for example using energy density traffic light system.

These are echoed in measures proposed by international organisations and by national task forces on obesity and national Government policies. In particular, food polices for schools, communal sports facilities/access to parks or green areas and restriction of TV advertising and marketing of unhealthy foods to children are concerns at all levels. Exploring ways of providing healthy foods to a larger segment of the population also features in several proposals, as does education of and information to children and parents about healthy living, including explaining the benefits of and promoting breast feeding.

Given the considerable agreement in the European Union on a select number of policy options, it is hoped that concerted action to put these in place can be achieved – and achieved as a matter of urgency.

1. Introduction

Child obesity is increasing rapidly in virtually all Member States of the European Union and in the wider European region. This is a relatively recent phenomenon, with little evidence of any change in the prevalence of childhood obesity before the early 1980s, and signs of a rapid increase in prevalence during the 1990s and early 2000s.

An obese child faces a lifetime of increased risk of various diseases, including cardiovascular disease, diabetes, liver disease and certain forms of cancer. Even during childhood, obesity increases the risk of these diseases, and is a significant cause of psychological distress.

At present, paediatric services have few treatment options available. Once a child is substantially overweight, successful weight loss is difficult to achieve, as it is for adults, and requires intensive health care resources. Prevention of obesity is to be preferred, for the child's sake as much as for the social and economic costs that otherwise ensue.

Due to awareness of these problems, various national and international measures are being proposed. The present document, prepared as part of the European Commission-supported European Heart Network project on "Children, obesity and associated avoidable chronic diseases", discusses the options available. The last section of this document (section 8) describes how the project has undertaken a Europe-wide assessment of policy options involving stakeholder consultation at both national and European level, in order to develop a set of guidelines for addressing childhood obesity.

2. International Approaches

2.1 World Health Organization

A recent meeting of WHO experts on child health (Kobe, June 2005)¹ made several recommendations which help to inform the present document. These included, in summary:

- Child obesity is best prevented by focussing on the promotion of child health. Positive health messages (encouragement towards healthy diets and plentiful physical activity) are preferred to messages which criticise or stigmatise those who engage in obesogenic behaviour, and also avoids the risk of malnourishment.
- Initiatives taken to promote child health / prevent obesity at local level (e.g. home and school) will be more successful if they are accompanied by initiatives taken to reduce obesogens in the environment (e.g. controls on food marketing, improved street safety).

- Child obesity is a global problem which varies according to local contexts. Solutions will require both global and local policies which reflect the context. In this sense, national governments are enablers of local policy and are players in determining global policy. National governments should be encouraged to develop obesity action plans, with a body commissioned to monitor progress.
- Policies to prevent obesity and promote health will require the participation of many sectors (e.g. education, transport, food supply, social welfare) and stakeholders (e.g. food manufacturers, fast food operators, school authorities, parents and children's representatives), and a process which includes these elements in the development of policy has a greater chance of success.

Furthermore, the World Health Assembly (Geneva 2004) agreed a Global Strategy on Diet, Physical Activity and Health² which called on all member governments:

- to draw up national guidelines on diet and physical activity and develop strategies for their promotion;
- to ensure that school policies and programmes support the adoption of healthy diets and physical activity, with health promotion in the curriculum, plentiful opportunities for physical activity, and controls on the promotion and availability of foods high in salt, sugar and fats;
- to ensure that health promotion information is accurate and balanced; marketing messages to children that encourage unhealthy dietary practices or physical inactivity should be discouraged;
- to ensure that food supply policies take account of the need to support healthy dietary patterns, and that transport, crime and planning policies support safe environments for physical activity.

The Assembly also agreed that civil society – such as non-governmental organisations – should be encouraged to put health on the political agenda, organise campaigns to stimulate action, urge governments to promote public health policies, and monitor progress to see that policies are implemented.

At the regional level, the WHO European Regional Office is developing a programme of work to support member states: assessing needs, developing national capacity, disseminating data and evidence-based policy proposals, promoting collaboration between stakeholders (including civil society networks), and organising a Ministerial Conference on counteracting obesity in late 2006. A meeting of experts in Athens, June 2005, discussed the interventions and support measures which the regional office could recommend (a draft paper, "Preliminary survey of evidence on interventions to prevent and control obesity", has been published by the Regional office³).

2.2 European Union

A role for non-governmental organisations has been echoed in the work of the EU Platform for Action on diet, physical activity and health which was launched in March 2005 by Markos Kyprianou, European Commissioner for Health and Consumer Protection. The Platform is an alliance of stakeholders concerned with obesity and health – including health promotion organisations as well as commercial operators – which the Commissioner called upon to work on anti-obesity measures, including consumer information, education, physical activity promotion, marketing and advertising, and food composition and availability.

Following this, the European Council of Ministers issued a Memorandum expressing strong support for national and European action to counter obesity and promote healthier diets and physical activity, in their June 2005 document *Council conclusions on obesity, nutrition and physical activity* (9803/05).⁴

The European Commission has also been supporting several research programmes designed to monitor current obesity prevalence levels, to examine options for best practice in obesity prevention, and to look at stakeholder views on measures to counter obesity.

Among the EC-supported projects is the “Children, obesity and associated avoidable chronic diseases” project, part-funded by the European Commission and coordinated by the European Heart Network. The objectives of the project are threefold:

- to measure and analyse the impact of food marketing to children and young people;
- to determine and consider policy options aimed at addressing obesity in children; and
- to complement activities and approaches at national level and stimulate concerted action.

The present document describes some of the processes which can be considered in order to develop policy options at local and national level, some of which may also affect European and global policy making. The document also describes examples of initiatives already underway or being proposed, in Europe and elsewhere.

3. Structuring the obesity-prevention programme

A programme for preventing child obesity will be shaped by local contexts and local possibilities, within a general framework. The International Obesity Task Force (IOTF) has developed a framework to assist in the development of local policy initiatives to promote healthy children’s weights, outlined below.

The local context will determine the priorities and their implementation. For example, in countries with significant recent economic change and newly developed industrial investment programmes – such as may be found in the transition economies of the former USSR and its satellites – special attention may need to be paid to the protection of traditional diets and food production methods, where these are considered especially health promoting or health protective. The same may apply in areas around the Mediterranean where dietary transitions are also being witnessed.

Transient and migrant populations will also merit special attention. They frequently experience social exclusion and powerlessness and may lack local supportive networks. The cultural and linguistic barriers they experience may lead to inadequate and inconsistent access to educational resources and to health care, and may result in poor compliance with preventive health services (e.g. child clinic services). The usual health promotion interventions may appear unworkable, so context-sensitive approaches are needed.

Within these contextual constraints and particular cultural conditions, a series of questions can be posed which help to structure the development of counter-obesity policies. An example of this has been developed by the International Obesity Task Force (IOTF) for use in the development of health policies in a variety of contexts.

3.1 The IOTF ‘Five Steps’ model

The IOTF model for developing policies to counter child obesity is based on asking five questions, which lead from one to the next. The questions are:

- *What is the extent of the problem?*
- *What can be modified and what can be targeted?*
- *In what settings can we intervene?*
- *Practically, what could we do?*
- *What are the best options among these?*

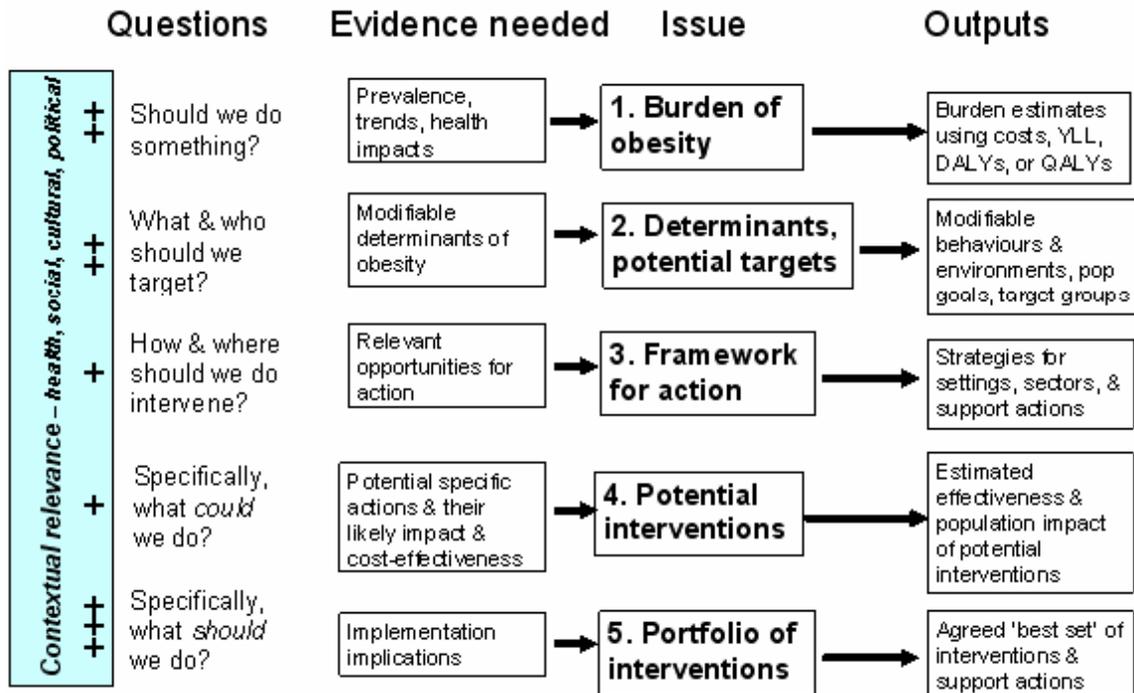
Within each of these questions, the framework identifies the types of evidence needed to help to answer the question, and the sort of answers that can be expected at each stage. A summary of the framework adapted from Swinburn et al. (2005) is shown in figure1 on the next page.⁵

The first two questions are familiar ones, in which evidence of the problem is collected and a case made for reducing the burden of disease. Most policy makers are now starting to accept that there is a problem and that various opportunities exist for modifying health behaviour and the environmental influences on health. The third question raises issues about the upstream and downstream settings for potential interventions, and the fourth and fifth questions then tackle the hardest part of the programme: choosing from the various options and setting priorities among them.

The fifth question should lead back to the second one so that the interventions can be reviewed in the light of the strategies that are selected. Care must be taken to ensure that the goals represent true health gains rather than statistical artefacts or goals set for policy convenience.

Figure 1

General framework for child obesity policy development



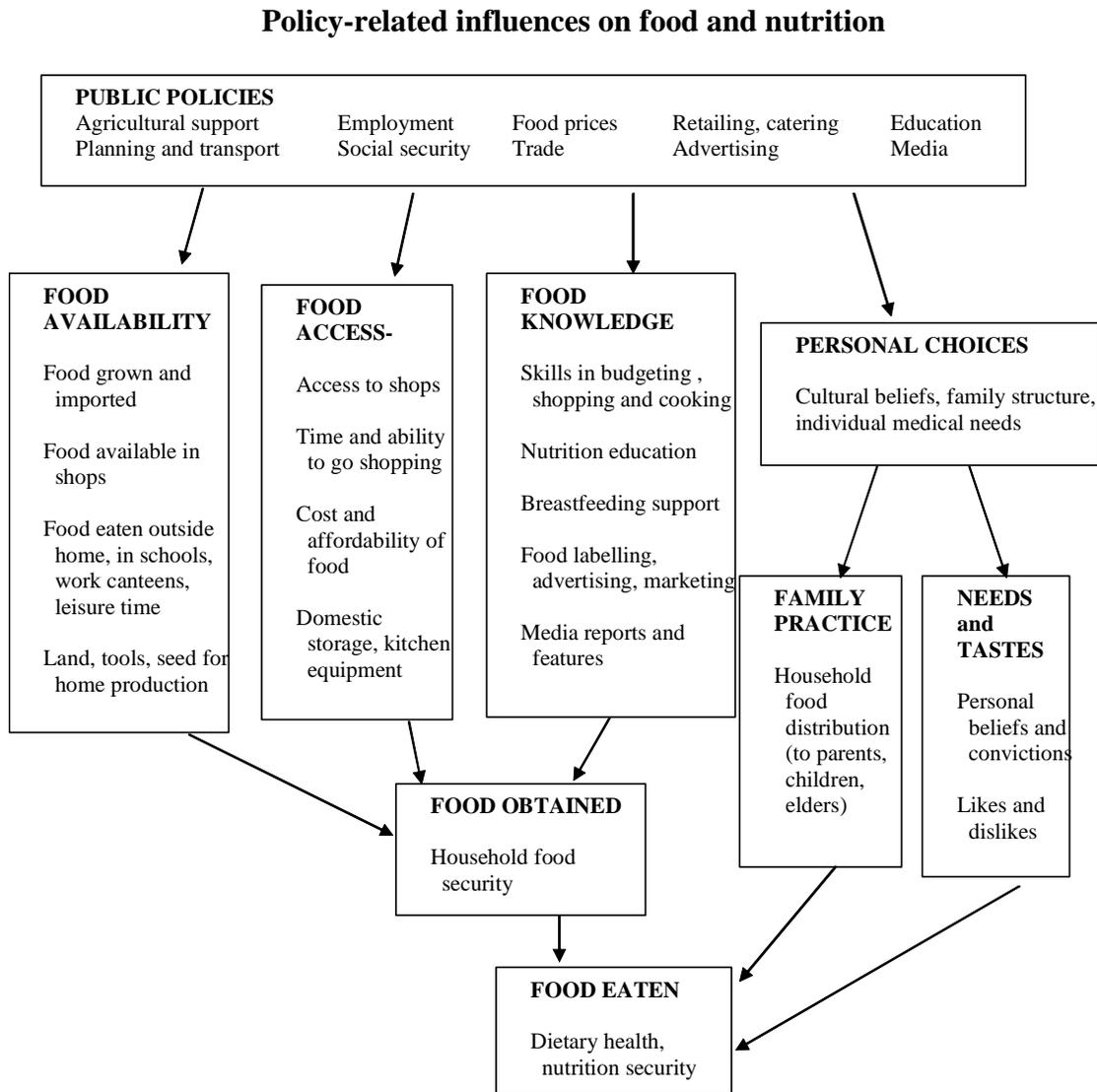
This approach can help to deal with problems about evidence. Some policy makers have been frustrated in their attempts to improve health when they cannot ‘prove’ that a suggested intervention would work. The approach shown in the diagram aims to develop a ‘portfolio’ of investment possibilities, in the way that a financial investment fund would look for a portfolio of investments that are likely to reap good returns. Instead of definitive proof, the choice is based on informed judgements, and these judgements need to be constructed from available evidence combined with the views of the stakeholders that are affected by the interventions.

The recommendations of the WHO expert group⁶ include the suggestion that successful policies are likely to involve the participation of a wide variety of sectors and stakeholders. The implication of this is that the selection and prioritisation of policy options should be undertaken in a forum that includes representatives of this broad constituency. It follows that a programme to develop policies should involve a consultative meeting, or series of meetings, to ensure that a wide range of stakeholders have a sense of inclusion in the process. The purpose of these meetings is to reach a

consensus view on (a) the sorts of policies that are feasible and appropriate, and (b) the policies which should be enacted most urgently, according to certain agreed criteria.

In order for such agreement to be reached efficiently and productively, some background preparation is needed. The next sections describe tools that may help to achieve this by structuring the approach to obesity prevention policies, and looking at ways in which they can be prioritised. The tools take into account individual lifestyle and individual choice, but also consider the contextual and social determinants of choice by considering how choices are affected by policies and actions taken before the choice is made. An example of the modelling of contextual influences on dietary intake has been described by the WHO Regional Office in the publication *Food and Health in Europe: A New Basis for Action*.⁷ This is shown in figure 2 below.

Figure 2

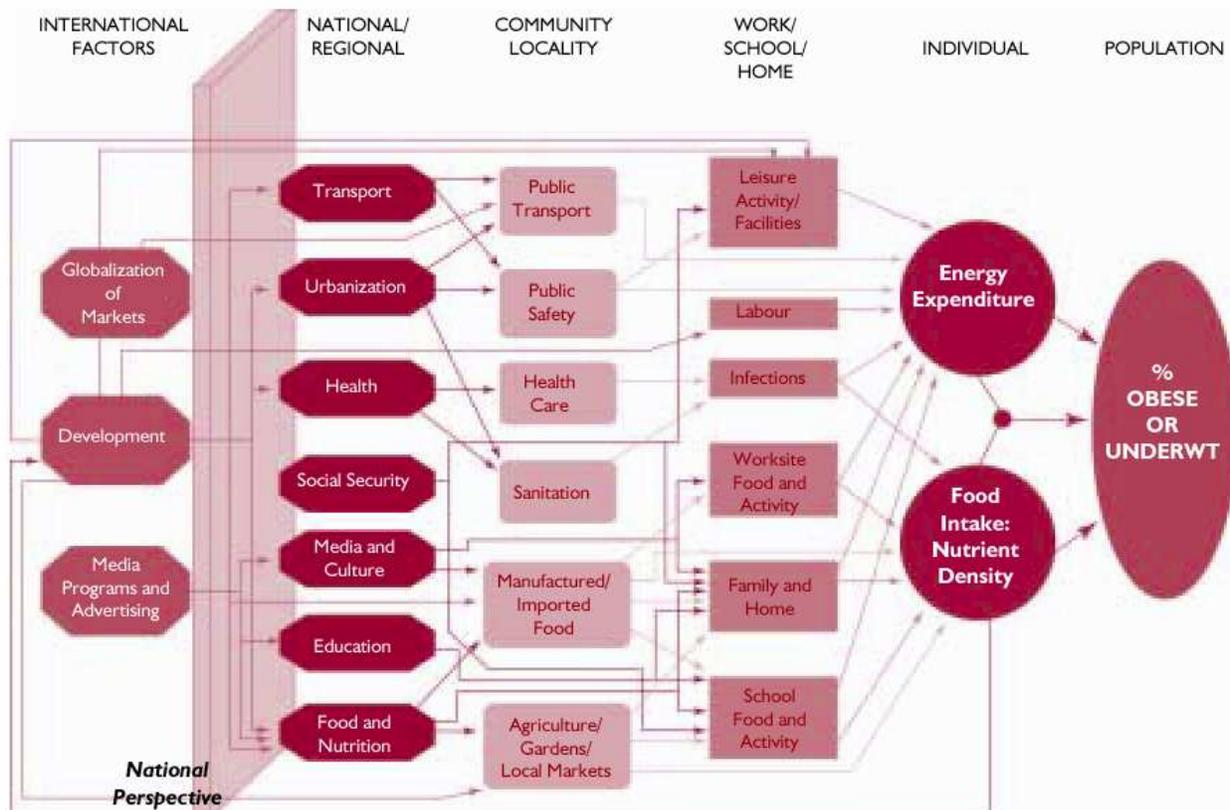


This form of modelling helps to identify ‘upstream’ (social, economic and political) factors that influence dietary choices and ‘downstream’ influences (knowledge, skills, personal preferences). It helps to sensitise policy makers to the question: “How can we make healthy choices the easier choices?” by encouraging them to look at the wider context in which choices are made. The same modelling approach can be taken for upstream and downstream influences on physical activity – for example looking at urban planning and zoning policies which make walking and cycling easier, fuel pricing policies which discourage the use of cars, crime reduction for ensuring streets that are safe for walking and playing, support for leisure facilities such as national parks and urban sports and recreation grounds, and so forth.

Consideration of these factors has led the IOTF to construct what is termed a ‘causal web’ which tracks the policy influences from an international level down to an individual level. These are illustrated as a flow chart from left to right in figure 3.

Figure 3

The IOTF ‘causal web’ of influences on population adiposity



3.2 Listing the policy options

For obvious practical reasons, most scientifically controlled, evaluated studies of actions to prevent child obesity have been undertaken in the school, clinic or family setting where child behaviour and body weight can be monitored most easily. The results of these formal trials have been disappointing: various systematic reviews have concluded that the effects of intervening in these contexts are weak and may not be long lasting.^{8 9 10} The main exceptions, in which greater success has been shown, are found where interventions have targeted children who are already overweight, using intensive programmes involving activity, education, dietary controls, counselling and parental involvement.

The evidence indicates that these intensive interventions can reduce adiposity in overweight children, but the costs – especially where these may include residential ‘camps’ – can be high, requiring trained staff and supporting services. The success of these forms of intervention demonstrates the importance of changing the children’s environment as a means of influencing their behaviour, rather than relying on education and instruction alone. The longer term effects have not been studied to determine whether children can maintain lower adiposity into adulthood.

Besides these scientifically-conducted studies, a wide range of interventions have been undertaken, in the community and without targeting individual children. Examples of such interventions are shown in the table below. Although these initiatives are not being evaluated, they do indicate what can be achieved in practical terms, using local community structures and local political processes. The table includes examples from around the world.

Unevaluated initiatives that may help prevent child obesity

<i>Localised policies</i>	<i>Example of country</i>
1% Or Less social marketing to reduce milk fat intake	USA
Agita Sao Paulo Programme: promotion of physical activity	Brazil
Pricing policy on healthy foods in Minnesota	USA
“Water is Cool in School” project against soft drink sales	UK
“Walking buses” active transport to school	UK
Child Friendly Schools, safe food, safe play	India
Vending machines banned in schools	Taiwan; Japan
Nutrition standards for school food shops	Greece; Brazil
School food shops/canteens cannot be run by fast food chains	Greece
School teaching: the mobile food museum	Mexico
School teaching: Peer-led, child-to-child health	Ecuador
Children teach parents, program for health	Ecuador
Student Health Brigades, includes vegetable gardens	Ecuador
Rural Health Motivators for maternal nutrition	Swaziland
Heart Healthy Lunches in kindergartens	Canada
Healthy Heart Awards for kindergartens	New Zealand

Fruit and vegetable eating will help get school swimming pool	UK
School milk bar replaces vending machines	UK
“Lets Beat Diabetes” cycleways, paths and parks programme	New Zealand
“Ever Active” school sports programme	Canada
Breakfast for Learning nutrition in schools project	Canada
Collectif Action Alternative en Obésité	Canada
“Reach for the Moon” game for cardiovascular teaching	Canada
Nutrition and Activity Awards, \$2000 to Healthy School Zones	USA
Project LEAN for schools, with “Bright Ideas” suggestions zone	USA
Supermarkets provide activity areas while parents shop	Sweden; Cambodia
Companies give advice to employees re their child’s overweight	Switzerland
15-minute work-out for school staff and pupils every morning	Cyprus
Subsidised use of sports centres for local schools	Hong Kong; UK
Eat More Live, resource kit for primary school teachers	New Zealand
Sport Waikato “Teddy Bear” project for fitness in under fives	New Zealand
Children leaving schools in cars must stay back 10 minutes	Wales (UK)
<i>Population-wide policies</i>	<i>Example of country</i>
Nutrition standards for school meals	Japan; Scotland; Crete
Monitoring authority for commercial material in schools	Germany
6 a day programme to promote fruit and vegetable intake	Denmark
Fighting Fat Fighting Fit, TV campaign	UK.
Controls on TV advertising to children	Sweden; Greece; Ireland
Tax on advertisements for soft drinks	France
Maternal leave to promote breastfeeding	Norway; Sweden
Baby Friendly Hospitals promoting breastfeeding	1000 hospitals in India
Ban on advertising unhealthy foods near schools	Brazil
Sales tax on sweet or fatty food (proposed)	Switzerland
Sales tax on ‘luxury’ foods	UK
Review the use of colouring additives in energy-dense foods	Cambodia

Source: IOTF collected material 2004-2005

4. Population-based policy options suitable for the European context

In this section we summarise a range of approaches being proposed in strategy documents supported by regulatory authorities, leading public health agencies and/or scientific or medical professionals.

Nearly all proposals include educational material for parents and children, along with school-based programmes for improving children’s health and nutrition knowledge, improving the provision of foods available in the school (either by broadening choices to include more healthy items or restricting the availability of unhealthy items) and increased physical activity classes.

Such policies, which act directly on children’s immediate environments, represent downstream or localised solutions that are designed to act on individual children or children in school classes. In the reports discussed below, recognition is also given to the role of upstream, society-wide, or population-based approaches which tackle obesogenic influences at an earlier stage in the causal pathway. These population-based approaches are summarised here (readers interested in the localised, school-based and family-based proposals should consult the relevant documents).

4.1. International Obesity Task Force

Following an expert meeting in Prague, 2004, the International Obesity Task Force published a document identifying around 80 proposals for preventing child obesity.¹¹ The options were categorised into policies relevant to the European Commission, those relevant to national governments, those for the food production, catering and retail sectors, and those for local governments and local school services. The full paper is reproduced in Appendix 2 of the present report.

Specific proposals at national and international level included:

European Commission options:

- Appoint an EC public health coordinator to oversee a comprehensive cross-departmental obesity prevention strategy engaging Member States, civil society and business as part of a new public health programme.
- Establish an independent public health agency to monitor progress on prevention of obesity, diabetes, cardiovascular disease and cancers, with powers to inspect the implementation of and compliance with prevention policies and to propose regulatory measures.
- Require health and obesity impact statements in all Commission policies (including agriculture, trade, education, media, transport).
- Introduce measures to control the marketing to children of foods with high energy density.
- Introduce a simplified food labelling scheme with clear symbols warning of high energy density, and extend food labelling requirements to include catering establishments.
- Review the technological need for organoleptic food additives (e.g. colourings and flavourings) used in energy-dense children’s food products.
- Support Member State initiatives to educate and inform parents and children about healthy lifestyles, and support healthy infant feeding practices and the promotion of breastfeeding.

Member state governmental options:

- Develop national nutritional targets, and develop food standards to help industry meet those targets.

- Conduct health audits of commercially sponsored materials for schools, clinics, etc.
- Support moves to make public sector catering the ‘gold standard’ for healthy eating.
- Ensure that school inspection criteria include appraisals of school health programmes, including food provision, physical activity provision, health and nutrition education.

Fiscal controls and market regulation options:

- Consider the application of sales taxes and other fiscal measures to support national nutrition targets, e.g. adding taxes to energy-dense foods, and using the revenue from these taxes to support measures for obesity prevention and health promotion.
- Consider the application of levies to recover the production subsidies for oils, sugars and dairy fats given under the Common Agricultural Policy.
- Subsidise the distribution and marketing of fruit and vegetables to children, and review tax exemptions given to the marketing of energy-dense foods to children.
- Use public procurement contracts to encourage a sustainable and expanding market for healthier food products.

Further options are detailed in Appendix 2, below.

4.2. Swedish National Institute for Health (2005)

The Public Health Institute in Sweden has launched a document called “Healthy Dietary Habits and Increased Physical Activity: the Basis for an Action Plan”¹² which includes key elements affecting child obesity:

“Apart from better information and awareness by consumers, action is needed on the part of society to reduce the availability and demand for soft drinks, sweets, ice cream, crisps, cakes and cookies and to increase those for healthy foods.”

The report recommends reducing by 50% the consumption of these food types.

The report notes these principles:

- The action plan should originate from the government and/or parliament.
- Health promotion concerning healthy dietary habits and increased physical activity should be institutionalised at the local and regional level in order to ensure coordination and continuity.
- All those affected by the action plan should have a participatory role.
- An action plan should not be designed as a wish list. It must also be possible to put the plan into practice. It is insufficient to merely suggest *what* is to be achieved, e.g. a healthy school meal; there must also be a description of *how* this can be achieved.

- Adequate resources should be guaranteed for advocacy, development and implementation. The implementation of an action plan requires continuity, structure, farsightedness and resources.
- Methods should be created for monitoring and evaluation during the implementation phase. Quantifiable targets should be continually evaluated.

Examples of actions to counter obesity in Sweden

<i>Policy area</i>	<i>Domain</i>	<i>Lead actor</i>	<i>Measure</i>
Housing	Local environment	Government	Government should introduce a specific programme and devote resources to refurbishing and renovating play areas so that they inspire play, movement, sport and outdoor education.
Consumer	Food sector	Government	Sweden should work at the EU level to ensure that TV food advertising targeted at children is banned throughout the EU.
Consumer	Food sector	Consumer Agency	Consumer groups should be funded to monitor the marketing of fatty and sugary foods directed at children.
Consumer	Schools	Consumer Agency	Material directed at young people about food marketing in relation to health should be produced.
Consumer	Schools	Municipal authorities	School authorities should adopt policies controlling the nature of commercial sponsorship.
Tax	Food sector	Government	An enquiry should investigate the scope for reducing fat and sugar intake through taxation.
Transport	Local government	Road Administration	The work of the Swedish Road Administration with children and young people in traffic should be given a high priority.
Sport	Local environment	Municipal authorities	Municipalities should ensure people have local sports facilities within 2.5 km, and basic facilities within 1 km of home, accessible by active or public transport.
Public health	Implementation	Board of Health and Welfare	A national database for monitoring children's height and weight. Data on breastfeeding from child healthcare records should be included in such a database.
Public health	Implementation	The National Institute of Public Health	A national committee should coordinate, implement and monitor the action plan for good dietary habits and increased physical activity focusing on obesity issues.

Additional measures that affect the food supply are also proposed, including:

- Data on food supply, food prices and marketing of certain food groups (fruit, vegetables, keyhole-labelled foods, sweets, crisps, soft drinks, cakes, cookies and ice cream) should be compiled annually and published in the Statistical Yearbook of Sweden.
- Public health impacts should be assessed and considered in relevant international negotiations and in particular regarding reforms to the EU Common Agricultural Policy. The effects of product support should be given particular consideration.

4.3. Irish Obesity Task Force (2005)

Appointed by the Republic of Ireland's Minister of Health and Children in 2004, the National Obesity Task Force was commissioned to develop a strategy to halt the rise and reverse the prevalence of obesity. This was published in May 2005.¹³

The report noted that:

“...Within the public sector the range of government departments with roles to play is very considerable. It includes the Department of Health and Children itself, Agriculture and Food, Finance, Arts, Sport and Tourism, Education and Science, Environment, Heritage and Local Government, Enterprise, Trade and Employment, Social and Family Affairs, Transport, Communications, Marine and Natural Resources, Justice, Equality and Law Reform.”

The report recommended a series of measures, including the following:

- All state agencies and government departments, as part of a health impact assessment, need to develop, prioritise and evaluate schemes and policies (including public procurement) that encourage healthy eating and active living, especially those aimed at children and vulnerable groups.
- Ireland should play an advocacy role within the European Union to reform policies relating to healthy eating and active living among those that govern activities relating to global trade and the regulation of marketing and advertising of food to children.
- Vending machines should be banned in primary schools. A clear code of practice in relation to vending machines in post-primary schools should be developed by industry, the Department of Education and Science and schools' representative bodies.
- A national, regularly reviewed code of practice must be developed in relation to industry sponsorship and funding of activities in schools and local communities.

- Every child should receive a safe and active passage to school through the provision of safe walkways, cycleways or transport.
- The Department of Social and Family Affairs should review social welfare (assistance) payments to take account of the relatively high cost of healthy foods for socially disadvantaged groups.
- The Department of Justice, Equality and Law Reform should ensure that grant recipients under the Equal Opportunities Childcare Programme comply with the statutory requirements in relation to healthy eating and active living.
- The Department of Arts, Sports and Tourism should coordinate with the Department of Education and Science on the shared use of sports and physical activity facilities between schools and communities.
- The Department of Enterprise, Trade and Employment, the Department of Health and Children, together with the private sector and consumer groups, should immediately take multi-sectoral action on the marketing and advertising of products that contribute to weight gain, in particular those aimed at children.
- The food and drinks manufacturing industry, the retail sector, the catering industry and the suppliers to these should promote research and development investment in healthier food choices.
- The food and drink industry should be consistent in following the lead of those who have already abandoned extra large value individual portion sizes.
- Local Authorities in partnership with local communities and the Gardai [police] should ensure the provision and maintenance of safe and accessible green spaces for physical activities.
- The private leisure industry should be encouraged to make its facilities more accessible to lower socio-economic and minority groups through partnership with local communities, local authorities and health boards.

4.4. Spanish Ministry of Health (2005)

The Spanish National Obesity Strategy, *Estrategia NAOS*, produced by the Ministry of Health and Consumer Affairs in 2005¹⁴ includes the following:

“...The diet of Spanish children and adolescents is characterised by an excess of meat, cured meats, milk products and high energy foods, including manufactured cakes and fizzy drinks (rich in fats and sugars, respectively) and by a deficit in the intake of fruit, vegetables and cereals.

“...Another cause of obesity is [a lack of] physical activity... the latest causes of which are living in cities, new technologies, passive leisure and increased access to transport.”

Proposals include:

- The creation of an Obesity Observatory to measure progress in the prevention of obesity, to specify objectives and the time required to achieve them, to evaluate measures, compare results and reject interventions without impact and prioritise successful ones, and to monitor adherence to the different self-regulatory agreements.
- The creation of new parks, gardens and sports areas through the collaboration of the autonomous communities and the town councils, orchestrated through the Spanish Federation of Towns and Provinces.
- Work groups will be set up in the autonomous and municipal areas, responsible for designing initiatives to improve spaces for practising exercise and physical activity, safe bicycle lanes, skating rinks, pedestrian lanes. These groups should include the participation of management representatives from the town council, town planning department, leisure and sport activities, teachers etc.
- Entertainment businesses, toy manufacturers and advertisers will be asked to collaborate in the search for common initiatives aimed at promoting games requiring physical activity.
- In school catering, an agreement has been drawn up with leading caterers and members of the Spanish Federation of Associations Given to Social Catering (FEADRS) that they will not use oils rich in saturated or trans fatty acids when frying, and will carry out children’s workshops to foster educational measures aimed at the promotion of a varied and balanced diet.
- In agreement with the Spanish National Association of Automatic Distributors (ANEDA) school vending machines will not be located in those areas easily accessible to pupils from infant and primary education.
- Advertising will be removed from vending machines in order to avoid encouraging the consumption of certain products, and will be replaced by stickers containing messages promoting a healthy diet.
- The food industry will sponsor sporting events, promote sport, provide material and encourage physical activity, especially for children and young people.
- The food industry undertakes to aim to obtain the gradual reduction of the calorie content of food products on the market and to investigate technological solutions enabling this.

- The food industry will study the use of portions to discourage excessive calorie consumption.
- The food industry will develop a self-regulating code to control the publicity and marketing of food and drink aimed at children under twelve, defining the hours when advertisements can be transmitted, the presentation mode of the products and the promotion, information and nutritional education that can be made.
- Caterers undertake to gradually reduce, as supplies allow, the saturated fat content of foods, and to replace animal fats with vegetable fats where this is possible, and to reduce both the saturated and trans fatty acid content of fats and oils used for frying.
- Caterers will undertake not to encourage the consumption of huge individual portions.
- Health care workers will promote breastfeeding in Primary Care Centres.
- The Ministry of Health and Consumer Affairs will set up a mechanism that enables the evaluation of the potential impact of the food industry's self-regulatory mechanisms, and which "can be completed with the development of the necessary regulatory measures".

4.5. Danish Ministry of Health (2003)

In 2003, the Danish National Board of Health published its *National Action Plan Against Obesity*,¹⁵ which included a number of proposals regarding child obesity prevention:

The aim in relation to children's diet is to reduce the number of children who consume more energy from fat and sugar, e.g. through sweets, snacks and soft drinks, than is recommended (from the age of three a maximum of 10% of energy should stem from sugar and a maximum of 30% from fat). At the same time the number of children who meet the recommended intake of fibre should be increased, e.g. through eating wholemeal products and 300 to 500 grams of fruit and vegetables per day depending on age.

Develop and implement food policies for day care and schools to secure healthy food services and to meet learning objectives for nutrition and home economics. Strengthen the requirements and standards for teacher training in home economics.

Ensure that vending machines with sweets and soft drinks are not placed in schools or educational institutions for adolescents.

Introduce stricter rules for TV advertising and marketing that target children.

Adopt and implement policies for physical activity in day care, schools and out-of-school care, such as providing suitable playgrounds and indoor areas for physical activity, and

ensuring adequate staff numbers to make physical education, sports and excursions possible.

Adopt traffic policies to encourage active transport to and from day care, school, out-of-school care, and sports and leisure associations: establish car-free zones near schools; establish safe foot and cycle paths separated from car traffic near schools.

Adopt and implement policies against bullying of overweight children and adolescents in day care, schools and out-of-school care.

Establish guidelines for municipal health services with a view to the monitoring of children's height and weight.

4.6. Other policy documents

Other policy documents within the European Union include:

- The UK White Paper *Choosing Health*, which identified several approaches to tackling obesity and specified a national target “to halt, by 2010, the year-on-year increase in obesity among children under 11 in the context of a broader strategy to tackle obesity in the population as a whole”.¹⁶ This was followed by a review published by the UK National Audit Office on the measures being implemented to achieve this target.¹⁷
- A document from the French government-funded body INSERM, whose expert advisory group published “Child Obesity: Screening and Prevention” in 2000.¹⁸
- A document from the UK Faculty of Public Health entitled “A Tool Kit for Developing a Local Strategy to Tackle Overweight and Obesity in Adults and Children” in 2005.¹⁹
- The European Commission Green paper on “Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases”.²⁰ This document will lead to an EU strategy on diet, physical activity and health in 2007.

In addition, several important documents have been published in the USA, Canada and Australia. Further details on the context and content of these reports are given in Appendix 3, below. The reports include:

- The US Institute of Medicine report “Preventing Childhood Obesity: Health in the Balance” (2005).²¹ (Further details are given in Appendix 3.) The American Obesity Association has also made a set of recommendations for child obesity prevention²² as has the American Pediatric Association.²³

- A Canadian review of obesity prevention policies²⁴ and a Canadian systematic review of prevention initiatives.²⁵ The Ontario Nurses Association has also published a set of Guidelines for the prevention of child obesity.²⁶
- A document from the New South Wales, Australia government, outlining their policy proposals for child obesity prevention,²⁷ and a more in-depth look at prevention policy development methods, prepared for the New South Wales government by the University of Sydney Centre for Public Health Nutrition.²⁸ (Further details are given in Appendix 3.)

5. Tools for policy development

The last two decades have seen the development of several useful tools to encourage local and national health promotion campaigns in general, and to develop obesity prevention campaigns in particular. Examples of general tools for participatory health policy making include Health Impact Assessment, Community Mapping and various other action-research approaches. Tools for exploring and reaching agreement among stakeholders include Multi-criteria Mapping, Public Juries, Focus Groups and Delphi iterative consensus building. The development of ‘best investment’ portfolios for health promotion generally has been described,²⁹ and can be applied to obesity prevention strategies (see below).

Tools more specifically related to the development of obesity prevention policies include the ANGELO model (Analysis Grid for Environments Linked to Obesity) which provides a matrix for considering various dimensions in the environment which may be acting to promote obesity. This can be used to raise awareness about the upstream and downstream influences on diet and physical activity in a structured manner.

The initial distinction is between environments that impinge directly on the individual – the immediate setting or ‘micro-environment’ – and environments that are more widely experienced throughout a population – the policy-set macro-environments. Within each of these two principle categories there are four levels: the physical, the economic, the political and the socio-cultural. This matrix, shown below, can be applied to diet and to physical activity.

Matrix of factors in the environment

Micro-environmental	Macro-environmental
<i>Behavioural settings such as homes, schools, communities</i>	<i>Societal sectors such as food and agriculture, education, media, government, public health or health care</i>
Physical	Physical
Economic	Economic
Policy/Political	Policy/Political
Socio-cultural	Socio-cultural

Adapted from Egger and Swinburn (1997).³⁰

A matrix such as this can then be used to raise awareness of the various obesogenic influences in the environment by requiring the cells within the matrix to be filled in with examples. For example, ‘street crime’ is an obesogenic influence acting on physical activity levels, in the ‘physical environment’ section of the micro-environment. A national crime prevention policy is an influence acting in the political sector, within the macro-environment.

An example of a micro-environmental matrix (for diet-related obesogens) and a macro-environment matrix (for physical activity-related obesogens) are shown below:

Examples of micro-environmental influences on food and diet

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • Location and type of food stores • Vending machines placement and products 	<ul style="list-style-type: none"> • Pricing policies • Freely available school water fountains 	<ul style="list-style-type: none"> • Family rules related to meals • School teaching curriculum for nutrition or cookery 	<ul style="list-style-type: none"> • Traditional foods on school menus • Use of celebrities for product promotion

Examples of macro-environmental influences on physical activity

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • Automobile industry sales and marketing • Easy access to coast, national parks, lakes etc 	<ul style="list-style-type: none"> • Subsidies for public transport provision • Fuel taxes, road use taxes 	<ul style="list-style-type: none"> • National curriculum for physical education • Building controls on stairs and elevators 	<ul style="list-style-type: none"> • Traditional leisure-time activities • Sports promotion in the media

The ANGELO model provides an easily-understood framework to highlight potential upstream causes of obesity. It leads on to questions about how these upstream causes themselves are created, and how they might best be controlled – for example, how the built environment or the food environment is produced. In the case of food, it is possible to consider the food chain from the farm, through processing and distribution to marketing, retailing and catering and final consumption. This in turn throws up a range of potential areas for discussion: agricultural policy, for example, which may encourage the production of certain types of food commodity (dairy, beef, vegetable oil, sugar) and discourage others (the removal of small farms, the loss of orchards, the destruction of fish, fruit and vegetables) or the effect of a transition from subsistence agriculture to cash cropping. Although apparently unrelated to obesity, such policies affect the relative

availability of different foods and their relative prices, both of which are major determinants of dietary patterns.

A similar approach can be taken to the built environment experienced by a community and the driving forces that shaped its production and use, and the resulting influences on the physical activity levels enjoyed by the members of that community.

A more detailed completion of an ANGELO matrix, based on proposals from various sources suitable for European Union Member States is given in Appendix 1.

It can be recognised that the evidence basis for public health policies is rarely ideal and, indeed, cannot be expected to provide ‘proof’ in the sense that a pharmaceutical trial might prove efficacy through randomised placebo groups and intervention groups kept in isolation from confounding factors. Public health promotion in its widest sense has to rely on the balance of available evidence rather than proof ‘beyond doubt’. On the balance of evidence and experience, a list of possible interventions can be drawn up, and from these priority actions can be decided.

6. Deciding the best options: choosing an ‘investment portfolio’

Preventive health interventions, particularly relating to food and physical activity, can be described not as costs to the nation but as investments to promote health. This is very important because there is new evidence that health is a crucial factor affecting the working capacity and GDP of a nation. There is also growing evidence that a high-quality diet provided to mothers and infants permanently affects the long-term intellectual capacity of the children. This economic approach to investments is a crucial feature which has been neglected by the medical profession/public health community for too long.

When considering obesity prevention options it is increasingly useful to simulate a *financial investment portfolio*. An investment portfolio in financial terms typically includes a mixture of ‘safe’ low-return, reliable savings schemes and ‘risky’ potentially high-return gambles. Similarly, we can describe options for health improvement and obesity prevention in terms of a mixture of reliable actions that have low returns in terms of preventing obesity, and more risky, but potentially more effective options.

In health promotion, the predicted return on investment can be measured in terms of expected health gains and other desired outcomes. The risk can be measured in terms of the likelihood of success, with several components:

- a) the expected effectiveness;
- b) the expected reach across different population groups;

- c) the degree of penetration of the effect within a population; and
- d) the sustainability of the intervention through time.

This approach can be summarised in a ‘promise’ table (Table 1, in which the risk element is displayed in two dimensions, one summarising the likelihood or certainty of effectiveness and one summarising the likely population impact.

Table 1

A ‘promise’ table for determining investment risk and gain

	Potential population impact		
Certainty of effectiveness	Low	Medium	High
Low	Least promising	Less promising	Promising
Medium	Less promising	Promising	Very promising
High	Promising	Very promising	Most promising

Source: Swinburn Gill and Kumanyika 2005 ³¹

The resulting investment ‘promise’ ranges from least (low certainty, low impact) to most (high certainty, high impact). An intensive intervention within a small group might be a good investment in terms of certainty of effectiveness, as it can be expected to result in changes in behaviour and other outcomes. However, the overall return may only be small to moderate as it affects only a small number of people, and will thus have only a slight impact on the health status of the community as a whole.

An example of applying this scheme to early childhood (pre-school) interventions is shown below in Table 2, based on analyses using the available evidence.

Table 2

Example of an investment approach to pre-school initiatives (Australia)

	Investment potential			
	Very promising <i>(High gain, Moderate uncertainty)</i>	Promising <i>(Moderate gain, moderate uncertainty)</i>	Promising <i>(High gain, high uncertainty)</i>	Some promise <i>(Moderate gain, high uncertainty)</i>
<i>Potential interventions</i>				
Training of childcare staff regarding healthy weight and promoting physical activity.				Yes

Educational programmes for parents of pre-school children: what foods to provide, how to encourage physical activity.			Yes	
Awards and incentives to encourage child carers' adherence to nutrition guidelines			Yes	
Kindergarten and pre-school programmes to target food service, nutrition and activity		Yes		
Introduce a specific regime of exercise into childcare and kindergarten settings			Yes	
Work with carers to include activity and nutrition policies in after-school care	Yes			
Develop specific after-school services for children with an existing weight problem				Yes
Develop a vacation programme for young children and their parents	Yes			
Work nationally for the development, implementation and monitoring of food service and physical activity policies	Yes			
Develop community capacities to support families with young children	Yes			

Source: Adapted from Gill et al. 2004³²

The development of these approaches and the use of these analytical tools are currently being researched in a series of projects undertaken in conjunction with the World Health Organization.³³ The experience obtained from these projects may prove helpful to the development of programmes against child obesity in Europe.

Modelling work undertaken by the State of Victoria, Australia, has indicated that some community programmes are not cost-effective at achieving weight control (although they may have other beneficial outcomes) while measures designed to reduce TV viewing, soft drink consumption or the exposure of children to advertising of fatty and sugary products appear to be more likely to achieve an impact for relatively little cost. The table below shows estimates of the likely cost of the various approaches in terms of reduced numbers of DALYs (Disability Adjusted Life Years – a measure of population health impairment) and the gross cost of the interventions per DALY saved.

Cost-effectiveness modelling for child obesity prevention

Analyses by Dept of Human Services, Melbourne.³⁴

Intervention	BMI reduction per child (kg/m ²)	Population health gain (DALYs saved)	Gross cost per DALY saved*
Walking School Bus schemes	0.03	30	\$0.3m-0.8m
TravelSMART active transport scheme	0.04	50	\$0.2m
Active After School Communities	0.002	450	\$90k
GP-family program for overweight children	0.25	510	\$32k
Multi-faceted school-based without active PE	0.14 - 0.31	1 600	\$20-40k
Orlistat therapy for obese adolescents	0.86	450	\$14k
Surgical gastric banding for obese adolescents	13.9	12 000	\$10k
Multi-faceted school-based including active PE	1.1	8 200	\$7k
Targeted family-based program	1.7	4 700	\$4k
Health education to reduce TV viewing	0.45	6 700	\$3k
Health education to cut soft drink consumption	0.13	5 300	\$3k
School program targeting overweight children	0.52	1 500	\$3k
Reduction of TV advertising to children	0.17	37 000	under \$5

* Australian dollars (\$1 = €0.60 approx)

7. Reaching consensus on priority actions

In Europe over the last decade there has been a gradual move towards basing policy, wherever possible, on evidence. The phrase ‘evidence-based policy’ has become a strong theme especially in health services, where reviews of different surgical and pharmaceutical approaches to disease treatment can be significantly changed following reviews of the scientific evidence, based on controlled trials, with interventions and placebos.

However, health promotion and changes in individual and social practices are not easily examined on the basis of controlled trials and are therefore not easily evaluated using systematic reviews of the scientific literature. The traditional approach has been to gather opinions based on experienced practitioners and to reach a consensus of the leading experts. This is sometimes referred to as ‘eminence-based’ policy.

A difficulty with the practical implementation of anti-obesity measures is that policies are not adopted by governments on the basis of pure science, expert agreement or even financial investment criteria. Pressures are put upon government agencies, legislative bodies and other key policy makers from a variety of interest groups, which will influence the policy-making judgements. It is therefore essential that the various needs and demands of such interest groups are accounted for in a comprehensive model for preventing child obesity.

In addition to ensuring that the views of interest groups are taken into account, it is also necessary to consider the views of those who are being targeted – i.e. those involved in delivering a programme of action (such as community workers, health staff, teachers, parents) and those receiving the benefits from the programme (primarily children and their representatives). The value of involving participants in the development of policies has been recognised for several years, and was enshrined in the Ottawa Charter adopted by member governments of the World Health Organization in 1986. The Charter states “Health promotion is the process of enabling people to exert control over the determinants of health and thereby improve their health”³⁵ not only as individuals but also as social groups, through, for example, education and economic advancement and the development of social capital to create health-supportive environments.

Effectively, this broadens the policy-making arena to include a wide variety of ‘stakeholders’ who have a perspective on what should be done. Examples of stakeholders concerned with physical activity or food and diet are shown in the box below:

Examples of stakeholders with an interest in child obesity prevention

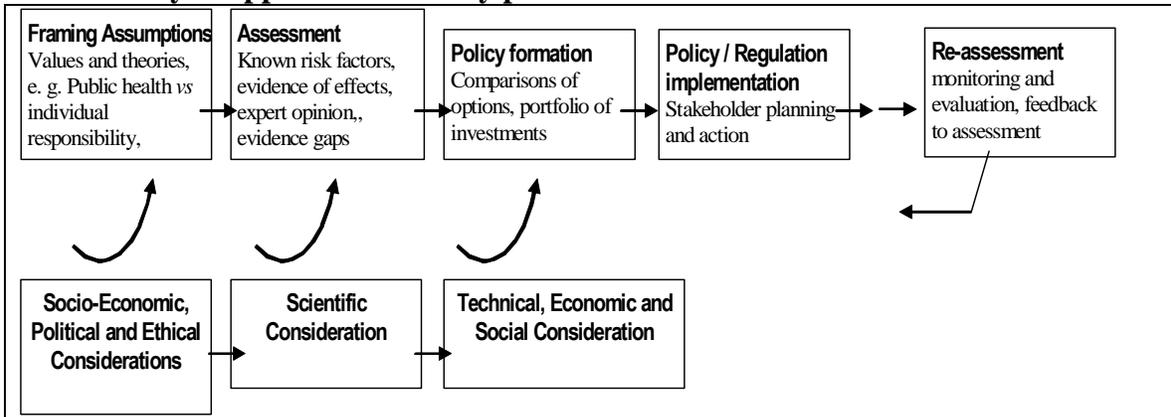
- Children, children’s organisations
- Parents, family members engaged in child care, other child carers
- Health service providers, health professionals
- Health advocacy bodies, NGOs
- School staff, including teachers, managers, school boards, catering staff
- Local and national government departments (e.g. health, education, transport etc.)
- Retailers, supermarket chains
- Fast food restaurant owners, managers, staff, mobile caterers
- Fast food suppliers, catering suppliers
- Vending machine operators
- Manufacturers of foods, food ingredients, food additives
- Primary food producers, food transporters and processors
- Food packaging manufacturers, label designers
- Advertising and marketing agencies
- TV, telecom and print media providers and regulators
- Internet service providers and regulators
- Video and computer games manufacturers
- Transport authorities, traffic controllers
- Crime prevention and public safety agencies
- Building designers, architects
- Leisure, recreation and parks authorities
- Sports facility providers, sport events sponsors
- Rural tourism providers, marketers and authorities
- Family practitioners, health promotion staff
- Pharmaceutical and surgical suppliers
- Health insurers

- Insurers against liability claims, re-insurers
- Specialist law firms
- Investment banks and financial investment advisers

From the material presented above it is possible to summarise the process needed to develop policies for obesity prevention. The logical steps in this process can be delineated, and can be likened to models for risk assessment in combination with those for health impact analysis. This has been illustrated for general interventions for risk reduction in an analysis by WHO, and is illustrated in figure 4 below.

Figure 4

A risk analysis approach to obesity prevention



Adapted from WHO 2004 ³⁶

The starting point can be a scoping exercise which helps to set the assumptions (framing assumptions) on which agreement can be reached: this consists of summarising the known problems and the likely risk factors which are leading to these problems, adding expert opinion, incorporating any evidence for the success of interventions, and also looking at the potential harm of interventions – stigmatising individuals, encouraging eating disorders – if there is evidence for these, too.

The techniques for raising awareness and understanding include the use of ANGELO modelling, and can be elaborated using the techniques of health impact assessment (see www.who.int/hia/en) or more structurally addressed using multi-criteria mapping methods. These methods allow non-scientific factors, including cultural values, ethics and political concerns, to be absorbed into the model. Scientific input is also assumed, especially in the identification of evidence needs and the relationship between risk factors and effects. Technical expertise is also needed in the policy formation stages, especially if regulation is required.

Examples of questions that explore the framing assumptions

- Should individuals be liable for their own health behaviour? (Plus: Does this include children, and how young?)
- Can parents be expected to control what happens in school? Or on TV programmes?
- Does it cost more to eat a healthy diet? (Plus: Why are some healthy foods not popular with children? How could they be made more popular?)
- Should governments tax some foods, or subsidise some foods? (Plus: What does the CAP do for food prices?)
- Should insurance companies charge higher health premiums for overweight people? Should fitness clubs be provided by health agencies?
- Should food companies be told what recipes to use in their products? (Plus: Should colouring additives be allowed for sugary drinks aimed at young children?)

Examples of other questions asked in the scoping exercise

- Are children eating more food from fast food outlets than, say, 20 years ago?
- What sort of food products are advertised during children's TV? And what techniques are advertisers using?
- What food products are promoted especially for children, based on food label criteria? What diets do they encourage?
- Are children watching more hours of TV than they did, say, 20 years ago? How do families use TV?
- Are streets actually more dangerous than they were, say, 20 years ago? Has traffic increased, or crime?
- Which population groups are most likely to show higher levels of obesity among children? Is this linked to socio-economic status, race, urbanisation?

The material generated in the scoping exercise can then be used as part of the risk assessment modelling. For example, the material may be mapped into flow diagrams (using, for example, the causal web diagram from IOTF and the map of influences on food choices from the WHO, both illustrated earlier) to enable upstream and downstream relationships to be brought into the process as dynamic influences upon each other. This will also help to identify gaps in knowledge and may help participants to explore their values and assumptions. Stakeholder participation in this part of the process helps to improve their understanding of the public health concepts involved in population-wide interventions and can help to prevent participants from holding overly-simplistic attitudes on, for example, victim blaming ("it's their own fault if they get fat") or naïve health promotion ("just give consumers the information and they will make the right choices").

The aim at this stage is to ensure that stakeholders are equipped to participate in the development of ‘risk management’ strategies, i.e. in the agreeing and implementing of obesity prevention policies. Once some agreement has been reached on the upstream factors which may be in need of attention, then the more difficult part of the process begins. This involves making decisions about the most appropriate means of achieving change – through voluntary measures or legislation, through initiatives led by government or local authorities or NGOs or commercial interests – as well as resolving questions of funding and providing resources for the intervention activities, and developing the capacity to undertake these activities.

Examples of criteria by which various anti-obesity options can be judged

- Will the option have an immediate impact on levels of obesity? Or a longer-term impact?
- Does it cost much (and which section of society bears that cost)?
- Is it sustainable or will it need repeated resource inputs?
- Does it engage the public, across most population groups?
- Is it fair and equitable?
- Will it be opposed (by whom?) or ignored (by whom)?
- Could the options cause harm? Could the options have additional social benefits?

One procedure for developing policy options is to borrow from business models and consider just two criteria: one which looks at the strengths versus the weaknesses of an option, and one which looks at the opportunities and threats which make the option viable. This is known as a SWOT (Strength, Weakness, Opportunities, Threats) analysis. As can be seen, it leaves out several valuable criteria. A more informed approach would be to attempt to rate options on more criteria, and to summarise these using the ‘investment portfolio’ concept – which judges the likely overall ‘promise’ of different options and compiles a set of promising options with different levels of risk and dividend, as suggested earlier.

Throughout the process, stakeholder involvement and consensus building is required to ensure the risk assessment and risk management stages can achieve practical effects in the implementation or communication stages, i.e. that policies will be supported and can be effectively implemented. The techniques outlined, using stakeholder analysis and action-research methods, may be effective, but the science is still developing. Meanwhile there is mounting pressure to respond to the immediate health threat through community and governmental action.

8. Consensus statements

One of the objectives of the European Commission-funded “Children, obesity and associated avoidable chronic diseases” (CHOB) project is to find consensus statements on policies to tackle child obesity at national and European level, which can feed into pan-European action and guidelines to combat childhood obesity. As part of the fulfilment of this project, a series of stakeholder meetings have been organised by participating EHN member organisations in several EU Member States.

8.1. Background and methodology

The framework for the series of meetings was set by (i) the first phase of the CHOB project, which involved member organisations in the collection of information on the current activities relating to childhood obesity prevention, and (ii) a parallel EC-funded programme which is analysing the opinions of stakeholders on obesity prevention across nine Member States (the PorGrow project, coordinated by the University of Sussex³⁷).

Significant synergy was created between the two projects when they came together at a meeting held on 11-12 October 2005, organised by the European Heart Network with the national coordinators of the CHOB project and with the participation of Professor Erik Millstone, director of the PorGrow project. The purpose of this meeting was to inform national coordinators of the PorGrow project and to develop a set of tools which they could use for undertaking their own stakeholder consultations to develop national consensus.

The PorGrow project

PorGrow stands for Policy Options for Responding to Growing Challenges from Obesity in Europe. The project is designed to map the positions taken by stakeholders in respect of policies to counter obesity. The PorGrow project should increase understanding of the acceptability of various types of policy and views on how such policies may work in practice, based on structured interviews with 20 main groups of stakeholders, in each of nine countries: the UK, Finland, France, Spain, Italy, Cyprus, Greece, Hungary and Poland.

The stakeholder groups in the PorGrow project are representatives of:

- the farming industry;
- food processing companies;
- large commercial catering chains;
- large food retailers;
- small ‘health’ food retailers;
- public sector caterers (e.g. school meal providers);

- consumer groups;
- senior government policy makers in health ministries;
- senior government policy makers in finance ministries;
- public health professionals;
- town and transport planners;
- the life insurance industry;
- commercial sport or fitness providers;
- school teachers;
- members of expert nutrition/obesity advisory committees;
- health journalists;
- the advertising industry;
- the pharmaceutical industry;
- public health non-governmental organisations;
- public interest sport and fitness NGOs;
- trades unions.

PorGrow compiled a list of 20 policy options relating to adult and child obesity prevention, and stemming from a variety of approaches and settings for health interventions. These were derived from literature searches and expert opinion. The 20 options used in the PorGrow interviews were:

- Change planning and transport policies
- Improve communal sports facilities
- Set controls on food and drink advertising
- Control sales of foods in public institutions
- Mandatory nutritional information labelling
- Subsidise healthy foods
- Tax obesity-promoting foods
- Improve training for health professionals
- Reform Common Agricultural Policy
- Improve health education
- Introduce controls on food composition
- Set incentives to improve food composition
- More obesity research
- Require healthier catering menus
- Include food and health in school curriculum
- Increased use of medication to control body weight
- Increased use of synthetic fats and artificial sweeteners
- Create new governmental body to coordinate policies relevant to obesity
- Control of marketing terms such as 'diet', 'light', 'lite'
- Increase use of physical activity monitoring devices

The results of the PorGrow project are available on the PorGrow website on <http://www.sussex.ac.uk/spru/1-4-7-1-8.html>.

Tools for national coordinators

At the October 2005 meeting the national coordinators had available to them a background paper developed by Tim Lobstein, Childhood Obesity Coordinator at the International Obesity Taskforce and European coordinator for the International Association of Consumer Food Organizations, outlining the various approaches to policy development and giving examples of national policies and areas in which policies were lacking. (That paper forms the basis for the material presented in sections 1 to 7 of the present document.) The 20 options used for the PorGrow project covered many of the aspects raised in the background paper, and these 20 options – adapted specifically to reflect childhood obesity prevention – were considered appropriate for use in the development of consensus statements at national level. Further details of the policy options are given in the Annex 1.

The PorGrow methodology (multi-criteria mapping) involves scoring the options under different conditions, according to various criteria, and with the criteria weighted for their importance. An important feature of this approach is that the criteria used to judge the options can differ between the different participants, and can reflect each participant's judgements on what is important in policy development. Based on their scoring of the options, the options can be ranked, and the top-ranking options discussed as being commonly agreed by consensus as the most strongly supported, and the bottom-ranking options agreed as the least strongly supported.

A simplified version of this approach to policy mapping was discussed at the meeting and trials were carried out among the national coordinators. In the 'scenarios' the judgement of the options was restricted to one (two scenarios – 'optimistic' and 'pessimistic' – were permitted in the PorGrow project). The number of criteria which each participant could use was reduced to three (it was unlimited in the PorGrow programme). The weighting methods were kept to a simple allocation procedure. The selection of criteria for making the judgements was reduced to seven possibilities (they were unlimited in the PorGrow programme, although combined into similar clusters for analysis). The seven criteria were:

- **Efficacy** - will it have an impact on obesity?
- **Cost** – is it worth paying this?
- **Reach** – will enough children be affected?
- **Inequalities** – does it help low-income families?
- **Sustainability** – will it last?
- **Side effects** – are there social benefits?
- **Acceptance** – will it be popular?
- **Feasibility** – can it be implemented?

Thus there was an agreed methodology for structuring the national stakeholder meetings, which ensured a degree of comparability across the countries. The procedures to be developed were agreed at the meeting as follows:

- National Coordinators were to set up meetings with like-minded NGOs or existing obesity platform members. EHN was to do the same at European level.
- At these meetings the 20 policy options were to be presented and explained to the participants involved. It was agreed that participants would be representatives of an organisation, and not speak in their own personal name at the meeting.
- The policy options were to be evaluated by participants according to any three from the list of seven criteria (above).
- Once the three criteria had been selected, participants were to score each policy option on a scale of 1 to 20.
- Participants would be asked to weight their three chosen criteria, using 10 points to be distributed over all the criteria used.
- The score of each policy option per criteria would then be multiplied by the weighting for that criterion and a combined score given by each participant for each of the 20 policy options involved.
- On the basis of these scores, individual participants identified their top five priorities for policy options. A discussion was then held during the meeting, to arrive at a list of five priority options that could have the support of all members of the participants at the meeting. Where possible, a list of the five least-supported options would also be discussed.

8.2. Outcomes of the stakeholder consultations

8.2.1. Context

One European-level and 14 national meetings were organised by the coordinators of the CHOB project. All the meetings at European and national level took place between November 2005 and April 2006. These meetings are part of the third phase of the CHOB project.

The outcome of the meetings reflects the knowledge available and the thinking which prevailed at the time of the consultation. It also reflects the political context which was present in each country at the time of the consultation, which explains why different options were more or less popular in one country and not in another.

The priority options selected in each country reflect the positions of all organisations that participated in the process. For the European meeting, participants at the meeting focused on options which could be achieved at EU level. Some important options, such as

“improve communal sports infrastructure”, are a matter for local competence and therefore scored lower in the European list of priorities.

Participating organisations were asked to come up with a list of five priority actions, out of the list of 20. It should be noted however, that these 20 priorities were already narrowed down from a list of around 150 environmental (macro and micro) influences on diet and food and physical activity and almost 80 policies for preventing childhood obesity. If a country, therefore, did not select a particular option among the top five, it should not be interpreted as a sign that this option is not considered important. The results of the consultations represent a snapshot which reflects the current thinking in each of the different countries which participated in the process. This may reflect the fact that at the time of the consultation, a particular action is not among the top five priorities because a country has already focused on this priority in the past and has moved on from there, for example, or because the current political, social or economic environment in a country does not yet make it possible to move a particular policy option higher up the agenda.

Notwithstanding the different natures of the participating organisations and the different contexts, there was considerable agreement on the top five priorities. Overall, participants recognised the need for both upstream and downstream interventions. They also recognised the need for a combination of policies covering a range of different types of options: educational (for children, parents and professionals), informational (labelling, marketing), and modification of the physical environment and the food supply chain (including food services in schools etc.). ‘Technological fixes’ such as pedometers, medication and artificial sweeteners were generally rejected as insufficient to deal with a major public health issue such as obesity, although they may have specific roles in certain circumstances.

The ten policy options that scored highest in the consultations were:

- Food and health education: Include food and health in the school curriculum
- Controlling sales of foods in public institutions: Limit the provision and sale of fatty snacks, confectionery and sweet drinks in public institutions such as schools and hospitals
- Controls on food and drink advertising: Controls on the advertising and promotion of food and drink products
- Subsidies on healthy foods: Public subsidies on healthy foods to improve patterns of food consumption
- Change planning and transport policies: Encourage more physical activity by changing planning and transport policies
- Improve communal sports facilities: Improve provision of sports and recreational facilities in schools and communities
- Improve training for health professionals: Improve training of health professionals in obesity prevention and diagnosing and counselling those at risk of obesity
- Improved health education: Improved health education to enable citizens to make informed choices

- Common Agricultural Policy reform: Reform of the EU’s Common Agricultural Policy to help achieve nutritional targets
- Mandatory nutritional information labelling: Mandatory nutritional information labelling for all processed food, for example using energy density traffic light system.

More detailed information on the outcome of each of the meetings is given below. For each of the meetings the following information is given:

- Stakeholders involved in the process;
- Judgement criteria used by participants;
- List of top five priorities;
- List of intermediate priorities;
- List of lower priorities (if available).

8.2.2. Meeting at European level

Stakeholders that participated in the meeting were:

- World Health Organization, represented by John Martin;
- European Public Health Alliance, represented by Tamsin Rose;
- International Association of Consumer Food Organisations, represented by Tim Lobstein;
- International Obesity TaskForce, represented by Neville Rigby;
- European Association for the Study of Obesity, represented by Kate Baillie;
- European Heart Network, represented by Susanne Logstrup;
- International Paediatrics Association, represented by Manuel Moya;
- EuroHealthNet, represented by Clive Needle.

Criteria used were (the figure indicates the number of times a criterion was selected by participants):

Efficacy	7
Feasibility	4
Inequalities	4
Sustainability	3
Reach	2
Side effects	2
Cost	2

High current priorities for policy options agreed by consensus were:

- Controlling sales of foods in public institutions;
- Controls on food and drinks advertising;
- Mandatory nutritional information labelling;
- Common Agricultural Policy/Subsidies for healthy foods;
- Improved training for health professionals.

Intermediate priority options were:

- Change planning and transport policies;
- Improve communal sports facilities;
- Taxes on obesity-promoting foods;
- Improve health education in the media;
- Controls of food composition;
- Incentives to improve food composition;
- Provide healthier catering menus;
- Improve food and health education;
- Substitutes for fat and sugar.

Lower priority options were:

- Medication for weight control;
- Physical activity monitoring devices;
- Control of marketing terms;
- New government body;
- More obesity research.

8.2.3. Meetings at national level

8.2.3.1 Austria

Stakeholders involved in the process were:

- European Childhood Obesity Group (ECOG), represented by Kurt Widhalm;
- Fund for a Healthy Austria, represented by Rita Kirchler;
- Forum Nutrition Today, represented by Marlies Gruber;
- GIVE – Department for Health Education, represented by Andrea Lehner;
- Association of the Nutritionists of Austria, represented by Sonja Reiselhuber;
- Salzburg Obesity Academy Foundation, represented by Elisabeth Ardelt-Gattinger;
- Austrian Ministry of Health, represented by Lilly Damm und Martina Gerhartl.

Criteria used were:

- Efficacy
- Sustainability
- Feasibility

High current priority options were:

- Increase teaching in schools about food and health education (There is a trend in Austria toward reducing physical activity hours during the day, although everybody knows the opposite should happen);
- Improve health education in the media and community (importance in influencing family eating habits);
- Improve communal sports facilities;
- Improve training for health professionals;
- Controlling sales of foods in public institutions.

Intermediate priority options were:

- Controls on food and drinks advertising;
- Mandatory nutritional information labelling;
- Change planning and transport policies;
- Controls of food composition;
- Incentives to improve food composition;
- Provide healthier catering menus;
- Physical activity monitoring devices;
- Control of marketing terms;
- New government body;
- More obesity research.

Lower priority options were:

- Medication for weight control;
- Substitutes for fat and sugar;
- Taxes on obesity-promoting foods;
- Reform of the Common Agricultural Policy;
- Subsidies on healthy foods.

8.2.3.2 Belgium

Stakeholders involved in the process were:

- University of Ghent, Prof. Ilse De Bourdeaudhui;
- University of Ghent, Prof. Lea Maes;
- University of Leuven, Prof. Greet Vansant;
- Free University of Brussels, Prof. Hebbelinck;
- Catholic University of Leuven, Federation of Food Industry, Prof. Johan De Reyker;
- Flemish Association of Dietitians, Chris Provoost;
- Scientific Association of the Flemish GPs, Dr Andre Franck;
- Nutricare, Hilde Schutyzer;
- OIVO, Ingrid Vanhaevre;
- Federation of Food Industry, Wim Van Wassenhoven.

Criteria used were:

- Efficacy
- Feasibility
- Sustainability

High current priority options were:

- Mandatory nutritional information labelling;
- Food and health education;
- Controls on food and drink advertising;
- Improving training for health professionals;

- Subsidies on healthy foods.

Intermediate priority options were:

- Controlling sales of foods in public institutions;
- Change planning and transport policies;
- Improve communal sports facilities;
- Taxes on obesity-promoting foods;
- Controls of food composition;
- Incentives to improve food composition;
- Substitutes for fat and sugar;
- Medication for weight control;
- Control of marketing terms;
- More obesity research.

Lower priority options were:

- New government body;
- Physical activity monitoring devices;
- Incentives for healthy catering menus;
- Improved health education in the media and community;
- Common Agricultural Policy reform.

8.2.3.3 Denmark

Stakeholders involved in the process were:

- Children's Board, Lene Hansen;
- Team Denmark, Stig Eiberg;
- Danish Cancer Society, Jytte Halkjær;
- Danish Diabetes Foundation, Anni Rasmussen;
- Pupils Board, Alexander Petersen;
- Danish Society for Child Health, Annette Storr Poulsen;
- Danish Board for Teachers of Home Economics, Ulla Hedegaard;
- Danish Board for Teachers in Physical Activities, Jytte Thormann;
- Bente Cortzen.

Criteria used were:

- Efficacy
- Reach
- Sustainability

High current priority options were:

- Two mandatory physical activity lessons per day in all schools (new option);
- Free healthy meals in schools (new option);
- Food and health education in schools;
- Change planning and transport policy;

- Subsidies on healthy foods.

Intermediate priority options were:

- Controlling sales of foods in public institutions;
- Controls on food and drinks advertising;
- Mandatory nutritional information labelling;
- Common Agricultural Policy;
- Improve training for health professionals;
- Improve communal sports facilities
- Taxes on obesity-promoting foods
- Improve health education in the media
- Incentives to improve food composition
- Physical activity monitoring devices
- Control of marketing terms
- More obesity research

Lower priority options were:

- Controls of food composition
- Provide healthier catering menus
- Medication for weight control
- Substitutes for fat and sugar
- New government body

8.2.3.4 Estonia

Stakeholders involved in the process were:

- Eesti Tarbijakaitseamet / Estonian Consumer Protection Board; Reili Kivilo, Specialist;
- Eesti Tarbijakaitsealiit / Estonian Consumers Union; Linda Läänesaar, Director;
- Eesti Lasteaetnike Liit / Union of Kindergarten Teachers of South Estonia; Silviija Mõttus, Assistant Director;
- Eesti Perearstide Selts / Estonian Association of Family Physicians; Diana Ingerainen, Member of the Board;
- Põllumajandusministeerium / Ministry of Agriculture, Food and Veterinary Department; Katrin Lõhmus, Senior Specialist;
- Riigikogu, Sotsiaalkomisjon / The Parliament of Estonia, Social Affairs Committee; Marko Pomerants, Member of Social Affairs Committee;
- Saue vallavalitsus / Saue Parish Government; Mati Tartu, Governor.

Criteria used were: (the figure indicates the number of times a criterion was selected by participants):

- Efficacy 7
- Reach 5
- Sustainability 4
- Feasibility 3

- Acceptance 1
- Inequalities 1

High current priority options were:

- Improve food and health education
- Improved health education in the media and community
- Change planning and transport policies
- Subsidies on healthy foods
- Improve training for health professionals

Intermediate priority options were:

- Controlling sales of foods in public institutions
- Controls on food and drinks advertising
- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve communal sports facilities
- Taxes on obesity-promoting foods
- Controls of food composition
- Physical activity monitoring devices
- Control of marketing terms
- More obesity research

Lower priority options were:

- New government body
- Medication for weight control
- Incentives to improve food composition
- Substitutes for fat and sugar
- Incentives for healthier catering menus

8.2.3.5 Finland

Stakeholders involved in the process were:

- Cancer Society of Finland, represented by Matti Rautalahti;
- Association of Clinical and Public Health Nutritionists in Finland, represented by Sointu Lassila;
- Finnish Center for Health Promotion, represented by Elina Savola;
- Mannerheim League for Child Welfare, represented by Arja Puska;
- Finnish Heart Association, represented by Marjaana Lahti-Koski.

Criteria used were:

- Efficacy
- Feasibility
- Reach

High current priority options were:

- Improve training for health professionals
- Control sales of foods in public institutions
- Multi-professional networking (new option)
- Improve food and health education
- Increase resources in health care (new option – in principle, Finland has a good health care system for obesity prevention among children and young people, but because of lack of resources it does not operate well)

Intermediate priority options were:

- Controls on food and drinks advertising
- Mandatory nutritional information labelling
- Common Agricultural Policy
- Subsidies on healthy foods
- Change planning and transport policies
- Improve communal sports facilities
- Taxes on obesity-promoting foods
- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Provide healthier catering menus
- Substitutes for fat and sugar
- Medication for weight control
- Physical activity monitoring devices
- Control of marketing terms
- New government body
- More obesity research

8.2.3.6 Germany

High current priority options were:

- Improved communal sports facilities
- Control of marketing terms
- Improved food and health education
- Controls on food and drink advertising
- Controlling sales of foods in public institutions

Intermediate priority options were:

- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve training for health professionals
- Subsidies on healthy foods
- Change planning and transport policies
- Taxes on obesity-promoting foods

- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Provide healthier catering menus
- Substitutes for fat and sugar
- Medication for weight control
- Physical activity monitoring devices
- New government body
- More obesity research

8.2.3.7 Iceland

Stakeholders involved in the process were:

- Institute of Public Health;
- Surgeon General Office - Chief Medical Officer.

Criteria used were:

- Efficacy
- Feasibility
- Sustainability

High current priority options were:

- Controlling sales of food in public institutions
- Improve communal sports facilities
- Change planning and transport policies
- Subsidies on healthy foods
- Improve food and health education
- Controls on food and drinks advertising

Intermediate priority options were:

- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve training for health professionals
- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Control of marketing terms
- New government body
- More obesity research

Lower priority options were:

- Physical activity monitoring devices
- Medication for weight control
- Incentives for healthier catering menus

- Substitutes for fat and sugar
- Taxes on obesity-promoting foods

8.2.3.8 Ireland

Stakeholders involved in the process were:

- INDI, Margot Brennan;
- National Youth Council of Ireland, Nadine Crotty;
- Food Safety Authority of Ireland, Dr Muireann Cullen;
- Dept of Preventative Medicine, St. Vincents Hospital, Kirsten Doherty;
- HSE Northern Area, Dr Nazih Eldin;
- Irish Nurses Organisation, Kathy Foy-Newman;
- Safefood/Food Safety Promotion Board, Marita Hennessy;
- HSE South Eastern Area, Susan Higgins;
- Irish Heart Foundation, Yvonne Kelly;
- Irish Heart Foundation, Janis Morrissey;
- Irish Heart Foundation, Maureen Mulvihill;
- National Heart Alliance Coordinator, Catherine Laffan;
- Institute of Public Health, Owen Metcalfe;
- Health Promoting Hospitals Network, Ann O' Riordan;
- Irish Sports Council, Bernie Priestley;
- Health Promoting Hospitals Network, Zita Sweeney;
- National Youth Council of Ireland, Lynn Swinburne;
- Irish Creamery Milk Suppliers Association, Dominic Cronin;
- Dr Steevan's Hospital, Public Health Medicine, Catherine Hayes;
- National Dairy Council, Ann Nugent, Dietitian;
- Obesity Clinic Loughlinstown Hospital, Alison Quinn;
- Barnardos, Fiona Ryan.

Criteria used were:

- Efficacy
- Feasibility
- Sustainability

High current priority options were:

- Controlling sales of food in public institutions
- Improve communal sports facilities
- Change planning and transport policies
- Controls on food and drink advertising
- Subsidies on healthy foods

Intermediate priority options were:

- Mandatory nutritional information labelling
- Common Agricultural Policy

- Improve training for health professionals
- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Improve food and health education
- Control of marketing terms
- New government body
- More obesity research

Lower priority options were:

- Physical activity monitoring devices
- Medication for weight control
- Incentives for healthier catering menus
- Substitutes for fat and sugar
- Taxes on obesity-promoting foods

8.2.3.9 Italy

Stakeholders involved in the process were:

- Cremona's Child Obesity Group (medical group), represented by Dr Sophie Testa;
- Altroconsumo (major consumer association), represented by Ms Emanuela Bianchi;
- Italian Heart Foundation, represented by Prof. Andrea Peracino;
- Region Lombardia "Health General Direction" (government institution), represented by Dr Luigi Magnoli;
- UPA (major advertiser association), represented Mr Giulio Malgara;
- ALT Italian Association against Thrombosis, represented by Dr Lidia Rota Vender.

Criteria used were (the figure indicates the number of times a criterion was selected by participants):

- Efficacy 6
- Cost 5
- Acceptance 3
- Sustainability 1
- Feasibility 1
- Side effects 1

High current priority options were:

- Food and health education in schools (favoured by 6 out of 6 participants)
- Improved communal sports facilities (favoured by 5 out of 6 participants)
- Improved health education in the media and community (favoured by 5 out of 6 participants)
- Controlling sales of foods in public institutions (favoured by 4 out of 6 participants)
- Controls on food and drink advertising (favoured by 4 out of 6 participants)

Intermediate priority options were:

- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve training for health professionals
- Change planning and transport policies
- Controls of food composition
- Incentives to improve food composition
- Provide healthier catering menus
- Control of marketing terms
- New government body
- More obesity research

Lower priority options were:

- Physical activity monitoring devices
- Subsidies on healthy foods
- Substitutes for fat and sugar
- Medication for weight control
- Taxes on obesity-promoting foods

8.2.3.10 *The Netherlands*

Stakeholders involved in the process were:

- Nutrition Centre;
- Netherlands Institute for Sports and Physical Activity;
- Netherlands Institute for Health Promotion and Disease Prevention;
- Consumer Organisation.

Criteria used were:

- Efficacy
- Feasibility
- Reach

High current priority options were:

- Controls on food and drink advertising
- Controlling sales of foods in public institutions
- Improved food and health education
- More obesity research
- Improve communal sports facilities: schools, playgrounds

Intermediate priority options were:

- Common Agriculture Policy reform
- Mandatory nutritional information labelling
- Physical activity monitoring devices
- Control of marketing terms

- Provide healthier catering menus
- Improve health education in the media
- Change planning and transport policies

Lower priority options were:

- Improve training for health professionals
- Subsidies on healthy foods
- Taxes on obesity promoting foods
- Incentives to improve food composition
- Medication for weight control
- New government body
- Controls on food composition

8.2.3.11 Norway

Stakeholders involved in the process were:

- Norwegian Cancer Society;
- Norwegian Diabetes Association;
- The Norwegian Association of Heart and Lung Patients;
- Norwegian Association of Asthma and Allergy.

Criteria used were:

- Efficacy
- Sustainability
- Inequalities

High current priority options were:

- Subsidies on healthy foods
- Changing planning and transport policies
- More physical education in school (new option)
- Food and health education
- Taxes on obesity-promoting foods
- Controlling sales on food in public institutions

Intermediate priority options were:

- Controls on food and drinks advertising
- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve training for health professionals
- Improve communal sports facilities
- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Provide healthier catering menus

- Substitutes for fat and sugar
- Medication for weight control
- Physical activity monitoring devices
- Control of marketing terms
- New government body
- More obesity research

8.2.3.12 Slovenia

Stakeholders involved in the process were:

- Ministry of Health;
- Ministry of Labour, Family and Social Affairs, Social Affairs Directorate;
- The National Education Institute of the Republic of Slovenia;
- Institute of Public Health of the Republic of Slovenia;
- Municipal Community Ljubljana, Department of Health and Social Welfare;
- Faculty of Education;
- Nutritionists Chamber;
- Slovene Consumers' Association;
- Institute of Public Health Ljubljana;
- Paediatric Clinic;
- College of Nursery Studies;
- Ledina Primary School;
- Medical Chamber of Slovenia;
- CINDI Slovenia;
- Olympic Committee of Slovenia;
- Slovenian Diabetes Association;
- Slovenian Heart Foundation.

Criteria used were:

- Efficacy
- Feasibility
- Sustainability

High current priority options were:

- Improve food and health education in schools
- Improved health education in the media
- Controls on food and drink advertising
- Subsidies on healthy foods
- Controlling sales of foods in public institutions

Intermediate priority options were:

- Mandatory nutritional information labelling
- Common Agricultural Policy
- Improve training for health professionals

- Change planning and transport policies
- Improve communal sports facilities
- Taxes on obesity-promoting foods
- Controls of food composition
- Incentives to improve food composition
- Control of marketing terms
- More obesity research

Lower priority options were:

- Provide healthier catering menus
- Physical activity monitoring devices
- New government body
- Substitutes for fat and sugar
- Medication for weight control

8.2.3.13 Sweden

Stakeholders involved in the process were:

- The Swedish Heart Lung Foundation(SHLF), represented by Janina Blomberg Aldebo;
- National Food Administration(NFA), represented by Annica Sohlström, Head of the Nutrition department;
- The National Institute of Public Health(NIPH), represented by Liselotte Schäfer Elinder, Head of the Department of health behaviour and Johan Faskunger;
- Stockholm County Council (SCC), represented by Eva Callmer;
- Stockholm Consumer Cooperative Society (SCCS), represented by Louise Ungerth, Head of Consumer and Environment.

Criteria used were:

- Efficacy
- Inequalities
- Sustainability

High current priority options were:

- Common agriculture policy reform
- Change planning on transport policies;
- Health Communication to parents at for example maternity clinics and children's health care centres (new option)
- More obesity research
- Health education on nutrition and physical activity and supporting environments in schools (new option)

Intermediate priority options were:

- Controlling sales of foods in public institutions
- Controls on food and drinks advertising

- Mandatory nutritional information labelling
- Improve training for health professionals
- Subsidies on healthy foods
- Improve communal sports facilities
- Taxes on obesity-promoting foods
- Improve health education in the media
- Controls of food composition
- Incentives to improve food composition
- Provide healthier catering menus
- Improve food and health education
- Substitutes for fat and sugar
- Control of marketing terms
- New government body

Lower priority options were:

- Medication for weight control
- Physical activity monitoring devices

8.2.3.14 UK

Stakeholders involved in the process were:

- British Heart Foundation, S. Shaffelburg;
- Faculty of Public Health, C. Parkin;
- Royal Institute of Public Health, A. Maryon Davis;
- South Asian Health Foundation, J. Zaman;
- Royal College of Physicians, P. Kopelman;
- Diabetes UK, N. Marsland.

Criteria used were:

- Feasibility
- Efficacy
- Inequalities
- Sustainability
- Cost
- Reach
- Acceptance

High current priority options are:

- Changing transport and planning policies
- Controlling sales of foods in public institutions
- Improve communal sports facilities
- Common agriculture policy reform
- Improve training for health professionals

Intermediate priority options:

- Controls on food and drinks advertising
- Mandatory nutritional information labelling
- Subsidies on healthy foods
- Improve health education in the media
- Incentives to improve food composition
- Provide healthier catering menus
- Improve food and health education
- Substitutes for fat and sugar
- Control of marketing terms
- More obesity research

Lower priority options were:

- New government body
- Taxes on obesity-promoting foods
- Medication for weight control
- Physical activity monitoring devices
- Controls on food composition

8.3. Conclusions of the outcome of the meetings

Stakeholders involved in this exercise can be grouped in the following categories:

- Health NGOs (cardiovascular disease, cancer, diabetes);
- Nutrition organisations;
- Government departments (health, education, nutrition, agriculture);
- Children's organisations;
- Pupils' organisations;
- Teachers' organisations;
- Parents' organisations;
- Consumer organisations;
- Universities and academics;
- Research institutes;
- Sports organisations;
- Doctors, nurses, hospital organisations;
- Food industry (only involved in a limited number of countries).

The **criteria** selected to judge the options were as follows (out of European meeting and 14 national meetings reported):

- Efficacy (will it have an impact on obesity?): 13 out of 14 countries + European meeting have this among top three criteria.
- Sustainability (will it last?): 9 out of 14 countries have this among top three criteria.

- Feasibility (can it be implemented?): 8 out of 14 countries + European meeting have this among top three criteria.
- Reach (will enough children be affected?): 4 out of 14 countries have this among top three criteria).
- Inequalities (does it help low-income families?): 2 out of 14 countries + European meeting have this among top three criteria.
- Cost (is it worth paying this?): 1 out of 14 countries has this among top three criteria.
- Acceptance (will it be popular?): 1 out of 14 countries has this among top three criteria.

8.3.1. General principles

Notwithstanding the different contexts in which these meetings were held at national level, there was considerable agreement on the **priority options**. Overall, participants recognised the need for a combination of policies covering a range of different types of options: educational (for children, parents and professionals), informational (labelling, marketing), and modification of the physical environment and the food supply chain (including food services in schools etc.). ‘Technological fixes’ such as pedometers, medication and artificial sweeteners, were generally rejected as insufficient to deal with a major public health issue such as obesity, although they may have specific roles in certain circumstances.

In terms of the criteria used to evaluate the options, it was clear that there was little evidence by which to justify the **efficacy** of any option. There were very few examples of successful obesity prevention strategies targeting children anywhere in the world and hence most evaluations must be based on expert opinion. Most initiatives would be untested, and would need monitoring, evaluation and review and re-design – and there is a need for this to be done on a consistent and organised basis.

Besides efficacy, **sustainability** was considered an important element by many participants, and this was reflected in the dismissal of options such as pedometers and medication as suitable for dealing with child obesity prevention. Changes to built environments were likely to be highly sustainable, whereas taxes and incentives on various foods might be too transient and open to other pressures to be able to have a consistent effect. **Feasibility** included concerns of acceptability: for example, improvements in school food services should be undertaken with children’s and parents’ participation to ensure full acceptability. Free school meals for all (priorities by the group in Denmark) require financial feasibility, while fiscal measures, such as taxes on obesogenic foods, may require political feasibility.

Participants also expressed concerns over **reach** and **inequalities**. These are important aspects where children from lower income groups, immigrant groups and ethnic minority populations are at greater risk of obesity and prevention measures are most required – which is the case in much of western and central Europe. As noted earlier, measures to prevent obesity which are constrained by costs to the family may discriminate against disadvantaged groups and increase health inequalities. ‘Reach’ includes the concept that

some children within a given population may be less sensitive to intervention measures than others – they may not ‘hear the message’ – and this problem is exacerbated when policies rely on individuals making changes to their behaviour. The preferred approach is to ensure that the policy mix includes a range of population-wide measures which affect all members and do not create any financial barriers to implementation.

8.3.2. High current priority options

- ***Food and health education: Include food and health in the school curriculum***

Was a priority in 12 out of 14 countries; Sweden extended this to “Health education on nutrition and physical activity and supporting environments in schools”.

Health education is seen by nearly all participants as necessary and capable of being improved. It fits well with a ‘consumer choice’ model of health, which describes health outcomes in terms of individual lifestyles. Health education in schools has sometimes been neglected in favour of more ‘academic’ subjects. With a view to ensuring that the option is sustainable it was argued that such education must be provided on a continuous basis. It was observed that nutrition education has been cut in some countries and that some teachers would like to have it back on the curriculum; it should be linked to improved health education for professionals. This option was favoured as a ‘whole school approach’, i.e. it is not enough just to provide food and health education in schools but rather it is also necessary, for example, to have standards for food available at school, and to provide sufficient physical education lessons and possibilities for physical activity throughout the school day. Moreover, the education should be expanded to include parents.

It should be noted, though, that the health education approach can lead to increased inequalities in the health outcome if the forms of lifestyle being promoted are not accessible to those on low incomes. It can also lead to a sense of failure if the attempts to adopt healthy lifestyles are not successful.

- ***Controlling sales of foods in public institutions: Controls on the provision and sale of fatty snacks, confectionery and sweet drinks in public institutions such as schools and hospitals***

Was prioritised by 10 out of 14 countries and by the European-level meeting.

This option focuses on the provision of food to children through schools and other institutions such as leisure centres and pre-school kindergartens and nurseries. There was acknowledgment of the ‘Jamie Oliver’ effect, in which a celebrity chef’s publicity helped to bring pressure on politicians by expressing what had been a concern of parents for some years. A policy should cover the meals services (where these are provided) as well as snack sales, vending machines, water fountains etc.

Vending machines posed problems in several countries and a number of countries allowed vending machines in primary schools (Estonia, Slovenia, Hungary, Greece, Finland, Belgium and Ireland). Some countries argued that the availability of healthy options in vending machines had not been too difficult to achieve.

It was observed that it would be beneficial if policies on controlling sales of foods in schools could be extended to cover foods sold in the vicinity of the school as well.

Children should participate in formulating these policies so that they ‘own’ the resulting changes. It may also be useful to involve parents, who may oppose them otherwise.

High levels of standards for food and drinks in schools may require European-level action.

- ***Controls on food and drink advertising: Controls on the advertising and promotion of food and drink products***

Was prioritised by 7 out of 14 countries and by the European-level meeting.

At national level there are various marketing codes and regulations designed to protect children, which are widely seen as failing to achieve their objective. Cross-border broadcasting undermines national controls, and a European-wide set of standards may be more appropriate. Self-regulation is seen by many consumer and health organisations as inadequate in preventing the repeated promotion of inappropriate diets to children. Such codes usually fail to cover the wide variety of marketing methods now aimed at children, including Internet and mobile phone marketing, cross-branding, sports sponsorship and other media which affect children’s choices, and do not address the sheer volume of advertising. Media training may help older children resist some marketing messages, but this is not reliable as most marketing is designed to work at sub-conscious levels.

It should be noted that there is concern also about advertising/commercial communications being brought to children via materials used by schools, for example exercise books, sponsored by soft drinks companies, and branded equipment, for example sports kit branded with fast food company logos.

- ***Subsidies on healthy foods: Public subsidies on healthy foods to improve patterns of food consumption***

Was prioritised by 7 out of 14 countries (Norway mentions both subsidies on healthy foods and “taxes on obesity-promoting foods”) and by the European-level meeting.

Fiscal interventions are considered by some to be a useful measure for adjusting market distortions. Taxes on obesogenic foods are linked to taxes on tobacco products as a means of deterring consumption. However, taxes are criticised for penalising those with the lowest incomes, for whom food costs are a large element of total expenditure, and subsidies on healthy foods are then seen as a better option. Taxing unhealthy food runs

the risk of encountering other health problems if alternative substances are used instead of, for example, sugar. Subsidies could be allocated as direct price reduction, or subsidies offered to distributors or to growers – an example in Norway is subsidised transport so that people in remote areas could buy fruit and vegetables at the same prices as residents of well-supplied areas. The assumption is made that changes in diets induced through these measures would lower child obesity rates.

- ***Change planning and transport policies: Encourage more physical activity by changing planning and transport policies***

Was prioritised by 7 out of 14 countries.

This was seen as acting at the environmental level, encouraging all children to increase their active transport (such as cycling to school) and active leisure (such as playing in the streets and parks). It was recognised that there may be high financial costs if the built infrastructure required substantial change (e.g. creating pedestrian precincts).

Comments from Denmark underlined the importance of physical activity being part of everyday life and society's responsibility in providing the supportive environment for uptake, such as providing bike lanes. The UK stressed the importance of safe routes to schools.

- ***Improve communal sports facilities: Improve provision of sports and recreational facilities in schools and communities***

Was prioritised by 7 out of 14 countries, although in Norway and Denmark it is expressed as increase physical education in schools (new option).

Sports facilities are an appealing option and may bring benefits to children in general, although some children may be more attracted than others. The definition of 'sports' should be wide, including a range of activities which may appeal to children with increased body weight, such as self-defence classes, dance classes and dance parties, skills training and other approaches which do not require a high level of fitness for enjoyable participation. Activity facilities, such as play facilities in playgrounds and parks, should also be included. School sports facilities could be extended to out-of-school hours for community use.

Three of the countries had this amongst their top five priorities. In Denmark the discussion is focusing on more physical education lessons in schools, so that 'sports' are available to all children, not only to those who are already taking part. In Ireland, the concept of communal sports facilities was extended to include all leisure time activities. The main problem is lack of resources. In the UK, the discussion is focusing more on access to sports facilities rather than availability of sports facilities, e.g. how to reach lower income classes, less advantaged groups, different cultural groups, etc.

- ***Improve training for health professionals: Improve training for health professionals in obesity prevention and diagnosing and counselling those at risk of obesity***

Was prioritised by 5 out of 14 countries, and by the European-level meeting.

Health professionals may require training and support of various sorts, including how to recognise and diagnose obesity risk in infancy, childhood and adolescence, how to offer advice to families without appearing prejudiced or patronising, and how to involve their professional organisations in lobbying for preventive services. Health professionals can have an influence on their clients and may influence their clients' health behaviour through appropriate guidance.

Belgium, Estonia, Finland, Iceland and Slovenia all expressed concern that little if anything on nutrition is included in the curriculum of health care professionals and that nutrition is not considered important in medical education. A lack of cooperation between nutritionists, dieticians and health care professionals was also noted.

As with school-based health education, there are limits to the likely success of this approach for children in an obesogenic environment. The European-level meeting recognised that training for health professionals had a cross-border element in the mutual recognition of qualifications and the free movement of professionals, and that criteria for training may require coordinated European-wide support.

- ***Improved health education: Improved health education to enable citizens to make informed choices***

Was prioritised by 4 out of 14 countries.

This option focuses on the wider role of health education in the community at large rather than through school-based teaching. Options here include the media, including the use of popular TV shows (e.g. soap operas) to convey health messages and stories of people attempting to change their lifestyles. This approach has been tried in Finland as part of the public health campaign to reduce heart disease. The approach is sometimes referred to as 'social marketing' which in its simplest form attempts to use commercial marketing methods for socially beneficial purposes, but which in its fuller form includes a range of methods for changing cultural norms and targeting opinion makers, legislators and commercial operators who set those norms.

Estonia suggested that there was a need for targeted education, for instance on reading nutrition labels.

- ***Common Agricultural Policy reform: Reform of the EU's Common Agricultural Policy to help achieve nutritional targets***

Was prioritised by 2 out of 14 countries and by the European-level meeting.

Sweden and the UK were the only two countries that together with the EU level had reform of the CAP amongst their top five priorities. But certain aspects of the CAP were uniformly condemned, such as the promotion of full-fat dairy products and the destruction of fruit and vegetables.

The UK argued that reform of the CAP is considered an upstream policy option, where a small change could have a large effect. Feasibility of this option was seen as a barrier in most countries.

- ***Mandatory nutritional information labelling: Mandatory nutritional information labelling for all processed food, for example using energy density traffic light system***

Only in Belgium and at EU level was this option amongst the top five priorities.

It was considered that mandatory nutrition labelling which was easily understood was an important part of the mix of policies needed to prevent childhood obesity – as well as a number of lifestyle related diseases. Labelling is a valuable adjunct to increasing consumer education as it allowed consumers to exercise informed choices. There was a need for much clearer, simpler and consistent labelling to make the choices quick and easy, such as a front-of-pack traffic light scheme, which in turn required agreement on nutrient profiling. An EU-wide approach including front-of-pack simplified labelling was seen as the optimal solution.

- ***Other high priority options***

These were prioritised in one country only. Most of these additional options were “new options”, i.e. options that were added to the list of 20 options in individual countries. These additions give a clear indication of the particular priorities which may concern individual countries in Europe:

- Denmark – Free healthy meals in schools (new option);
- Denmark – Two mandatory physical activity lessons per day in all schools (new option);
- Finland – Multi-professional networking (new option);
- Finland – Increase resources in health care (new option);
- Germany – Control of marketing terms;
- Norway – More physical education in schools (new option);
- Norway – Taxes on obesity-promoting foods;
- Sweden – Health communication to parents e.g. at maternity clinics, children’s health centres (new option);
- Sweden and the Netherlands – More obesity research.

8.3.3. Lower priority options

When it comes to **lower priority options**, the options below featured most frequently:

- ***New government body: Create new governmental body to coordinate policies relevant to obesity***

There was concern that another government body would not be popular, as governmental bodies are not always highly regarded.

Ireland believed it was a high priority option.

It was noted that there may have been stronger support for a new body if this was non-governmental or an independent public health authority able to hold government to account: to monitor policy implementation, evaluate outcomes and make policy proposals.

- ***Physical activity monitoring devices: Increase the availability and use of pedometers or other physical activity monitoring devices, with physical activity targets***

Although simple to use and likely to generate interest in activity, these devices were seen as lacking sustainability and too ‘gimmicky’ to lead to consistent behavioural change.

- ***Provide healthier catering menus: Encouragement and incentives for caterers to provide healthier menus***

Incentives are better organised through the market – both through supplier pricing and consumer demand – rather than by intervention in menu and recipe designs. Incentives such as award schemes may have a useful role in improving choice, e.g. in the workplace and school, but are unlikely to influence children eating at commercial catering outlets, such as fast food shops.

- ***Medication for weight control: Increased use of medication to control body weight***

This was not seen as a preventative measure but a form of treatment for those already obese. Furthermore, medication on a continuing basis was considered undesirable, especially for children.

- ***Substitutes for fat and sugar: Increased use of synthetic fats and artificial sweeteners***

There was little evidence that the sales of sweet or fatty products with a low calorie content had led to an actual reduction in overall calorie consumption, and indeed such products may have increased consumers’ taste for sweet and fatty foods generally. The

'artificial' nature of the substitutes was considered by some to add to the health risks. The presence of such foods did not help to get children to eat healthful diets.

References

- ¹ WHO Expert Consultation, Kobe, 20-24 June 2005. Draft recommendations (unpublished).
- ² WHO Global Strategy in Diet, Physical Activity and Health. Resolution WHA57.17 of the World Health Assembly, Geneva, May 2004 (see <http://www.who.int/entity/dietphysicalactivity/strategy/eb11344/en/>).
- ³ Preliminary survey of evidence on interventions to prevent and control obesity: Draft working paper for a policy review on obesity. WHO Regional Office for Europe: Copenhagen 2005. (Details from the WHO Regional Adviser for Nutrition and Food Security, Dr Francesco Branca fbr@euro.who.int.)
- ⁴ http://europa.eu.int/comm/health/ph_determinants/life_style/nutrition/documents/ev_20050602_en.pdf
- ⁵ Swinburn, B., Gill, T., Kumanyika, S. Obesity prevention: a proposed framework for translating evidence into action. *Obesity Reviews* 2005;6:23-33.
- ⁶ WHO Expert Consultation, Kobe, 20-24 June 2005. Draft recommendations (unpublished).
- ⁷ Food and Health in Europe: A New Basis for Action. Copenhagen: WHO Regional Office for Europe, 2004.
- ⁸ NHS Centre for Reviews and Dissemination. The prevention and treatment of childhood obesity. *Effective Health Care Bulletin* 2002; 7(6).
- ⁹ Campbell, K., Waters, E., O'Meara, S., Kelly, S., Summerbell, C. Interventions for preventing obesity in children. Cochrane Database Systematic Review 2, 2002: CD001871.
- ¹⁰ Lobstein, T., Baur, L., Uauy, R. Obesity in Children and Young People: A Crisis in Public Health. *Obesity Reviews* 2004; 5 (S1), 1-104.
- ¹¹ Lobstein, T., Baur, L. Policy options for the prevention of child obesity. Report of an IOTF workshop held at the European Congress on Obesity, Prague 2004. *European Journal of Public Health* 2005; in press.
- ¹² Anon. Healthy dietary habits and increased physical activity: the basis for an action plan. National Institute of Public Health, Stockholm, 2005. (See <http://www.fhi.se/upload/ar2005/rapporter/healthydietaryhabitsphysicalactivitysummary0502.pdf>.)
- ¹³ National Taskforce on Obesity. *Obesity: The Policy Challenges*. Dublin, 2005.
- ¹⁴ Ministry of Health and Consumer Affairs. Strategy for nutrition, physical activity and prevention of obesity (Estrategia NAOS), English version. Madrid, 2005.
- ¹⁵ National Action Plan Against Obesity: Recommendations and Perspectives (Short version). External working group under the National Board of Health, Center for Health Promotion and Prevention. Copenhagen: 2003. http://www.sst.dk/publ/publ2003/National_action_plan.pdf
- ¹⁶ Department of Health. *Choosing Health: Making healthy choices easier* Public Health White Paper. London: The Stationery Office, 2004.
- ¹⁷ National Audit Office. *Tackling Child Obesity – First Steps*. Report by the Comptroller and Auditor General. London: The Stationery Office, 2006.
- ¹⁸ Obésité, dépistage et prévention chez l'enfant. Edition INSERM 2000. An English summary is provided at <http://www.childhoodobesity.net/Obesity%20Synthesis.pdf>.
- ¹⁹ A Tool Kit for Developing a Local Strategy to Tackle Overweight and Obesity in Adults and Children. K. Swanton. London: Faculty of Public Health and National Heart Forum, 2005 in press.
- ²⁰ Green Paper on "Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases", COM(2005) 637 final of 8 December 2005.

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- ²¹ Preventing Childhood Obesity: Health in the Balance. Koplan, J.K., Liverman, C.T., Kraak, V.I. (eds.). Committee on the Prevention of Obesity in Children and Youth, Institute of Medicine of the National Academies. Washington: The National Academies Press, 2005.
- ²² American Obesity Association, website advice May 2002: <http://www.obesity.org/subs/childhood/prevention.shtml>
- ²³ Policy Statement: Prevention of Pediatric Overweight and Obesity. Committee on Nutrition, American Pediatric Association, *Pediatrics* 2003; 112 (2): 424-430. <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;112/2/424>
- ²⁴ Effectiveness of Physical Activity Enhancement and Obesity Prevention Programs in Children and Youth. H. Thomas, City of Hamilton, McMaster University and Health Canada, 2004. See <http://www.hc-sc.gc.ca/iacb-dgiac/arad-draa/english/rmdd/finalreport/ethomas.html>.
- ²⁵ Flynn, M., McNeil, D., Maloff, B., Mutasingwa, D., Wu, M., Ford, C., Tough, S. Reducing obesity and related chronic disease risk in children and youth: a synthesis of evidence with 'best practice' recommendations. *Obesity Reviews* 2005; in press.
- ²⁶ Primary Prevention of Child Obesity: Nursing Best Practice Guidelines. Registered Nurses Association of Ontario. Toronto, 2005. http://www.rnao.org/bestpractices/PDF/BPG_childhood_obesity.pdf
- ²⁷ NSW Department of Health. Prevention of Obesity in Children and Young People, NSW Government Action Plan 2003-2007. Sydney: NSW Department of Health, 2003.
- ²⁸ Gill, T., King, L., Webb, K. *Best options for promoting healthy weight and preventing weight gain in NSW*. New South Wales Department of Health, 2005 <http://www.cphn.mmb.usyd.edu.au/resources/FinalHealthyWeightreport160305.pdf>.
- ²⁹ Hawe, P., Shiell, A. Preserving innovation under increasing accountability pressures: the health promotion investment portfolio approach. *Health Prom Aug.* 1995; 5: 4-9.
- ³⁰ Egger, G., Swinburn, B. An 'ecological' approach to the obesity pandemic. *BMJ* 1997; 315: 477-80.
- ³¹ Swinburn, B., Gill, T., Kumanyika, S. Obesity prevention: a proposed framework for translating evidence into action. *Obesity Reviews* 2005; 6: 23-33.
- ³² Gill, T., King, L., Webb, K. *Best options for promoting healthy weight and preventing weight gain in NSW*. New South Wales Department of Health, 2005 (<http://www.cphn.mmb.usyd.edu.au/resources/FinalHealthyWeightreport160305.pdf> accessed 25 May 2005).
- ³³ See, for example, the WHO Obesity Prevention in Communities programme at Deakin University, Victoria, Australia: <http://www.research.deakin.edu.au/performance/pubs/reports/database/dynamic/docs/covstory.php>.
- ³⁴ Department of Human Services. *ACE-Obesity: Assessing Cost-Effectiveness of obesity interventions in children and adults - summary of results*. State of Victoria, Melbourne, 2006. www.health.vic.gov.au/healthpromotion/downloads/ace_obesity.pdf and Haby MM, et al, *International Journal of Obesity* 30, 1463-1475, 2006
- ³⁵ Ottawa Charter, 1986. See <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/index.html>, accessed 20 April 2005.
- ³⁶ WHO. Food and health in Europe: a new basis for action. Robertson, A., Tirado, C., Lobstein, T., Jermini, M., Knai, C., Jensen, J.H., Ferro-Luzzi, A., James, W.P.T. (eds.) WHO Regional Publications, European Series No 96. Copenhagen: World Health Organization Regional Office for Europe, 2004.
- ³⁷ See <http://www.sussex.ac.uk/spru/1-4-7-1-8.html>.

Appendix 1:

Policy option descriptions, based on the PorGrow study.

1. Change planning and transport policies: Encourage more physical activity by changing planning and transport policies

Architects and planning authorities, in conjunction with transport policy makers and the local community, could design, or re-design, residential, recreational and working areas to encourage people to make greater use of public than private transport, and to walk or cycle more frequently and/or longer distances. Transport policies and town planning could provide improved facilities for walking and cycling. Local authorities could prioritise improving conditions for pedestrian travel to school and plan for the use of streets as social spaces rather than just for parking and driving.

2. Improve communal sports facilities: Improve provision of sports and recreational facilities in schools and communities

The development and improvement of sporting and recreational facilities for young people and the wider community through the provision of accessible and adequate facilities. A wide and diverse range of physical activities might be offered in schools, beyond traditional forms of physical education. These might include a wider range of games as well as dance and gymnastic activities, swimming, athletics and outdoor and adventurous activities.

3. Controls on food and drink advertising: Controls on the advertising and promotion of food and drink products

Policy attention could be given to promotional activities targeting shopping and eating habits, especially those aimed at children. This would include statutory regulations restricting the ways in which obesity-promoting foods can be advertised and promoted. These restrictions refer especially to advertising and promotion targeted at children, particularly during and after children's television programmes, and the use of celebrities and characters or presenters from children's programmes in the advertising and promotion of food and drink products.

4. Controlling sales of foods in public institutions: Controls on the provision and sale of fatty snacks, confectionery and sweet drinks in public institutions such as schools and hospitals

Healthy eating initiatives are undermined when consumers, including children, encounter catering outlets and vending machines selling obesity-promoting foods in public institutions, particularly schools, health centres and hospitals. Controls could be introduced to ensure that catering outlets and vending machines in public institutions sell only healthy foods; this would improve the quality of their provision and reinforce healthy eating messages.

5. Mandatory nutritional information labelling: Mandatory nutritional information labelling for all processed food, for example using energy density traffic light system

The rules governing the ways in which food and drink products are labelled could be changed to make it easier for consumers to know how well or poorly individual products might contribute to their health. Clearer and simpler labelling could, for example, include an energy density ‘traffic light’ system, with high energy density products labelled in red, low density products labelled in green, and intermediate products labelled yellow. Nutritional information panels could be made more useful and legible. This would apply to all packaged foods and drinks. Such a system might make it easier for consumers to make healthy choices, and also provide incentives for food and beverage producers to reassess the composition of their products.

6. Subsidies on healthy foods: Public subsidies on healthy foods to improve patterns of food consumption

Change food prices to influence peoples’ decision-making in favour of healthier foods by introducing subsidies to lower the prices of healthy foods, making them more affordable.

7. Taxes on obesity-promoting foods: Tax changes to alter patterns of food consumption, and to reduce consumption of obesity-promoting foods

Change food prices to influence people’s dietary choices by increasing the price of obesity-promoting foods, including those high in fat and sugar. Methods for increasing the price of obesity-promoting foods could include a ‘fat tax’, or extending Value Added Tax to cover some dairy foods, fast food and sweet food.

8. Improve training for health professionals: Improve training for health professionals in obesity prevention and diagnosing and counselling those at risk of obesity

Health professionals may contribute to reversing the trend of the obesity epidemic, but only if they have the requisite skills, training and knowledge. Improving the skills and training of health professionals should enable them to be more effective in helping their patients to avoid obesity or to respond appropriately to their changing weight.

9. Common Agricultural Policy reform: Reform of the EU’s Common Agricultural Policy to help achieve nutritional targets

The European Common Agricultural Policy is currently contributing to the over-production of foods that are rich in calories and fats. Moreover, policies designed to diminish those surpluses, such as subsidised sales of surpluses to the food processing industry, are contributing to the over-use of those ingredients in processed foods, and consequently their over-consumption. The Common Agricultural Policy might be reformed to contribute to, and to reinforce, public health policies regarding obesity. Incentives to over-produce those foods that are already being over-consumed could be

significantly reduced. Subsidies on sales of obesity-promoting ingredients to the food processing industry could be phased out. Incentives could be introduced to increase or maintain production and distribution of foods that could more effectively contribute to improving public health and diminishing the risk of obesity.

10. Improved health education: Improved health education to enable citizens to make informed choices

Health education would be improved to provide citizens with more information and an improved understanding to help them more effectively to control their weight. This would include setting out clearly the health risks associated with being overweight or obese, and also highlighting those nutritional and lifestyle patterns that are most beneficial to weight control. These enhanced health education initiatives would use a broad range of forms and media, using not just leaflets and talks but also individual and community activities.

11. Controls on food composition: Controls on composition of processed food products

Governments would set health-focused compositional standards for processed food products. They might stipulate, for example, minimum amounts of fruit in jams and meat in sausages, and/or set maximum limits on the amounts of added fat and sugar in particular types of products.

12. Incentives to improve food composition: Incentives to improve food composition

The food industry could be given incentives to reformulate foods to provide healthier alternatives with a lower energy density (i.e. less fat, carbohydrates and sugars), and with increased nutrients. The incentives might include subsidies on healthier ingredients, and taxes on ingredients that are already being over-used and over-consumed. The introduction of new labelling requirements or options could also provide appropriate incentives. Governments could also publicly praise those companies that are making the most progress, and identify those making the least progress.

13. More obesity research: More research into obesity

More research into obesity would improve our understanding of how obesity could more effectively be prevented and treated. Research would address key areas of uncertainty and ignorance that could inform actions and policies. Such research might address issues concerning the benefits of physical activity as well as the causes and consequences of adopting particular dietary and life-style patterns, as well as social science research on why people find it so hard to control their weight.

14. Provide healthier catering menus: Encouragement and incentives for caterers to provide healthier menus

People are increasingly eating meals outside the home in a variety of catering outlets; customers should be able to choose to eat healthily when eating out. Caterers can provide healthier food by: expanding the availability of healthier choices, for example offering low fat and low calorie sauces and dressing. They could also adopt healthier food preparation, cooking and serving practices, for example trimming fat from meat before cooking, reducing the amount of fat and sugar used in cooking, and allowing customers to add as much or as little as they wish of sauces, dressing and fat spreads.

15. Food and health education: Include food and health in school curriculum

In some countries, school curricula do not include food and nutritional health education. Schools and colleges can play an important role by helping children and young people to learn how to be healthy, and to appreciate the importance of food for health. Children need to learn to recognise and appreciate healthy dietary practices. They also need to learn how to prepare food healthily, and should learn about nutrition as well as understanding and interpreting food labelling and advertising.

16. Medication for weight control: Increased use of medication to control body weight

Pharmaceutical companies are developing and marketing drugs to help people control their body weight by various means. Drugs can be used, for example, to limit the absorption of dietary fat, or to block receptors believed to play a role in appetite and food cravings. Others contain hormones that induce the feeling of being full up and not wanting to eat more.

17. Substitutes for fat and sugar: Increased use of synthetic fats and artificial sweeteners

Several food processing and chemical companies have developed, and are developing, synthetic fat substitutes, as well as new artificial sweeteners to replace dietary fats and sugars. If consumers ingest foods and beverages containing increasing quantities of artificial sweeteners and fats, they may be able reduce the calories in their diets. Governments and the European Commission could encourage those developments, for example by seeking to ensure that maximum permitted levels of usage are set sufficiently high to enable increased usage and consumption.

18. New government body: Create new governmental body to coordinate policies relevant to obesity

Responsibility for responding to the epidemic of obesity in most European countries is divided and fragmented across several government departments and agencies. If, in each country, there were a new single body with overall responsibility for leading and

coordinating policies related to the issue of obesity, concerning both food and non-food issues, then those policy responses would be more systematic and effective. The new body could set targets for reductions in the incidence of obesity, and monitor, report on and evaluate progress and the effectiveness of policy initiatives.

19. Control of marketing terms: Control the use of marketing terms such as ‘diet’, ‘light’, ‘lite’

Regulations could be introduced to restrict the conditions under which terms such as ‘diet’, ‘light’ and ‘lite’ may be used in the marketing and labelling of food products. Those regulations should diminish the extent to which consumers make poorly informed judgements about the significance of what they buy and eat. When nutritional information is unclear or misleading, this could encourage the purchase of a product which a consumer would not buy if it were clearly labelled as ‘high in fat’ or calories. Improved controls might improve the match between how products are labelled and how shoppers and consumers understand those labels.

20. Physical activity monitoring devices: Increase the availability and use of pedometers or other physical activity monitoring devices, with physical activity targets

While people may be provided with targets for the amount of physical activity, such as walking, that they should aim to do to help control their weight, it is often difficult for them to know whether or not the targets are being met or even exceeded. Monitoring devices such as pedometers are small, inexpensive electronic devices that can be attached to a person’s wrist or waist to measure levels of physical activity. If people had access to such devices they could monitor their levels of physical activity, and estimate whether they were sufficient, or whether they needed to take more exercise. Such monitoring devices have the potential to increase awareness of sedentary behaviour and thus promote physical activity, and have been shown to do so. Governments could preferentially distribute such devices to population groups potentially vulnerable to obesity that might not otherwise buy or use them.

Appendix 2:

A detailed example of the ANGELO model for Europe

The ANGELO model helps to place various policy options into categories. It can be used as an educational and awareness-raising tool, encouraging participants to think about what can be put into the various elements of a matrix.

The basic structure is:

Micro-environmental	Macro-environmental
<i>Behavioural settings such as homes, schools, communities</i>	<i>Societal sectors such as food and agriculture, education, media, government, public health or health care</i>
Physical	Physical
Economic	Economic
Policy/Political	Policy/Political
Socio-cultural	Socio-cultural

Within each of the cells it is possible to consider elements which relate to diet and elements which relate to physical activity. In the main document (above) we gave several examples of elements placed in the matrix. We also discussed numerous examples of policies being proposed or adopted by various EU Member States and others, all of which could be placed in the matrix.

In this appendix we are attempting to perform that task: to put many of the policy options from the European context into the matrix format. This can be used to develop judgements (for example using criteria such as practical feasibility, likely effectiveness, population reach and resource costs) so as to identify a mixture of priority and favoured options that have some chance of success – i.e. a portfolio of promising investments. Ideally, these judgements will be made in a democratic and inclusive forum, involving the deliverers and the beneficiaries of the proposed policies.

The matrix is divided into four sections concerning, respectively, micro- and macro-environments, and their influences on food/diet and on physical activity.

Examples of micro-environmental influences on food and diet

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • Location and type of food stores and street markets • Vending machines located in school corridors • Attractive school lunch canteens, food and menu displays • Well-placed drinking water fountains • Schools offer breakfast to children arriving early • Sweets and snacks located by supermarket check-outs • Sugary cereals and candy at child's height in supermarkets, shops • Health promotion leaflets in child clinics, supermarkets, schools 	<ul style="list-style-type: none"> • Prices of foods in local food stores and markets • School vending machine pricing policies • School canteen menus: relative prices of different options • Free salads/fruit with main dish (schools, fast food cafes, etc.) • Free drinking water; fill-your-own-bottle • Industry sponsorship of healthy diets promotion materials 	<ul style="list-style-type: none"> • Shopkeeper's willingness to stock fresh vegetables • Ban on soft drinks in school vending machines • School curriculum includes nutrition and cookery • Bottled water allowed in classrooms • No ice cream vans near schools or parks • No sweets allowed in schools • Published school food and drink policies and programmes 	<ul style="list-style-type: none"> • Use and support of local shops and street markets • Parents campaign against school vending machines • Traditional foods on school menus; try-before-you-buy offers • Involve parents in school canteen menu development • 'Water is cool' campaigns • Promote healthy body images, do not stigmatise fat body images • Improve quality of 'lunch box' and child-portioned products

Examples of micro-environmental influences on physical activity

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • Local child-friendly public swimming pools • Safe zones (street crossings, cycleways, paths) around schools • All-weather playground equipment provided • Town congregation area for promenading • Leisure centre provides safe, private changing rooms • Dance and music centres in schools and clubs • Provide sports areas for self-defence training • Kindergartens/ child carers include physical activity every hour • Supermarkets provide supervised play areas while parents shop • No TVs used in schools unless needed for lessons 	<ul style="list-style-type: none"> • Child discounts for access to swimming pools • Staff paid to monitor crossing, accompany walking buses • Funds for playground equipment and surfacing, roofing • Fines and fees to discourage town-centre driving • No charge for changing room lockers • Low cost entry to school/club dances and concerts • Low cost entry to self-defence and sports coaching clubs • Play areas in low-cost crèches and clubs for parents and preschool children • Provide free pedometers to children • Provide low-cost or free bicycles to children 	<ul style="list-style-type: none"> • Local health service support for children's leisure centres • Children in cars must leave school 10 minutes after others • Longer school breaks scheduled, more use of playtime • Define traffic-free zones to encourage walking, socialising • Introduce sports etc. that do not require change of clothes • School opens on Saturday evening for dance clubs • Schools open after school and evenings for sports and self-defence clubs • Published school activity policies and programmes 	<ul style="list-style-type: none"> • Saturday 'swimathons' and recreational festivals in leisure centres • Campaigns to use and improve walking routes and walking buses • Games and coaching used to make playtime attractive • Evening 'promenade' for younger people to meet • Mixed changing; supervised changing • Encourage music clubs; music skills sharing and coaching • Engage girls in confidence building through self-defence • School staff join morning work-outs • Lifts/elevators to be labelled 'for people with disabilities'

Examples of macro-environmental influences on food and diet

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • All schools built and equipped with kitchen and dining areas • Vending machines removed from elementary schools • Limits to number of fast food outlets per 1000 population • Limits to advertising near to schools • Breastfeeding encouraged in public places • Baby-friendly maternity wards encourage breastfeeding 	<ul style="list-style-type: none"> • Low-cost school food provided to all pupils, free for welfare pupils • Fundraising for schools to include nutritional criteria • Health-promoting schools get awards, financial grants • Incentives for employers to encourage breastfeeding at work • No price incentives for large portions for fast food outlets, soft drinks • Free fruit scheme for school children • Taxes on advertising of soft drinks • Food advertising is not a tax-deductible expense for food businesses • Small taxes on sweet or fatty foods • Pricing of super-sized portions (e.g. candy, popcorn and cola at cinemas) • Tariffs on imported food should support healthful diets • Common Agricultural Policy should support moves to healthy eating • Family welfare should cover costs of healthy (and attractive) diets • Grants to industry to develop healthier food products 	<ul style="list-style-type: none"> • National nutrition standards for school food and drinks • Fast food chains, soft drinks etc. cannot be promoted in schools • Ban on advertising in schools, no commercial teaching materials • School inspections include food provision, nutritional standards • School inspection criteria for commercial materials • Child care funders should ensure services provide healthful food • Regulated servings/ portion controls for fast food outlets • Controls on marketing of energy-dense foods to children • Foods must show clear nutritional signposting • Catering chains (over 20 outlets) must display nutrition data on menus • A Code of Practice on industry sponsorship of school and community activities • Controls on colouring and flavouring agents allowed in energy dense foods marketed to children • Require nutrition 	<ul style="list-style-type: none"> • Schools seen as setting example for provision of high standards • Schools not dependent on commercial financial support • School staff eat with children, from same menus • Schools seen as free of commercial pressures on children • Breastfeeding promoted and accepted in public • Inducing children to unhealthy behaviour is condemned • Commercialisation of childhood is condemned • Children learn 'media literacy', understand power of advertising • Maternity staff should be trained to promote breastfeeding • Promotion of healthy items on children's fast food / restaurant menus • Routine food and nutrition sample surveys of children • Social marketing of healthy diets through popular media, soap operas etc. • Use of celebrities and youth role models to promote healthy diets • Promote healthy diets

	<ul style="list-style-type: none"> • Grants to farmers changing to fruit and vegetable production • Diet and nutrition counselling covered by health insurance schemes (on medical prescription) 	<p>impact statements for all new policies at national and EU level</p> <ul style="list-style-type: none"> • Develop national targets for diet and nutrition for children 	<p>and healthy body images, do not stigmatise fat body images</p>
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Examples of macro-environmental influences on physical activity

<i>Physical</i>	<i>Economic</i>	<i>Policy/ Political</i>	<i>Socio-cultural</i>
<ul style="list-style-type: none"> • Automobile industry sales, advertising • Air pollution levels, traffic-filled streets • Safe areas for walking, skating and cycling • Improved security for parks and public gardens • Stairs are as easy to find as lifts/escalators 	<ul style="list-style-type: none"> • Subsidies for public transport provision • Fuel taxes to discourage urban driving • Grants to local authorities for walkways, cycleways, zoning • Tax breaks for giving child health advice to employees with children • Grants to renovate play-spaces and parks • Police give free cycle and road safety training • Government should finance the marketing of active leisure facilities • Low cost and children-go-free public transport on weekends to national parks, coasts, lakes etc • Physical activity training covered by health insurance schemes (on medical prescription) 	<ul style="list-style-type: none"> • Planning policies to reduce urban driving • Pedestrian zoning requirements • National curriculum for physical education • Inspection criteria for child carers include play areas • Inspection criteria for schools includes playing areas, sports fields • Children must pass road-awareness and cycling proficiency tests • A Code of Practice on industry sponsorship of school sports • Child care funders should ensure services provide play activities • Activity impact statements for all new policies at national and EU level • Develop national targets for health, weight and physical activity for children 	<ul style="list-style-type: none"> • Media campaigns against car culture • Green cities movements • Traditional leisure-time activities • Sports promotion in the media • Building designs include gardens and play areas • Children's clinics should offer parent-child activity training • Social marketing of healthy lifestyles through popular media • Sports personalities and role models should lead 'active leisure' campaigns • Routine weight, health and fitness sample surveys of children • Promote fitness and activity, do not stigmatise fat body images

Appendix 3:

Report of an expert meeting on child obesity prevention, Prague, 2004

Policies to prevent childhood obesity in the European Union

T. Lobstein¹ and L.A. Baur²

European Journal of Public Health, 2005 Dec.;15(6):576-9.

Key Points

- * Europe is experiencing a dramatic increase in the number of overweight and obese school children.
- * Treatment is not a viable option, targeted prevention is helpful but inadequate, thus public health interventions are urgently needed.
- * With good evidence of effectiveness unavailable, interventions must be based on expert opinion.
- * A meeting of international specialists agreed a list of options for policy makers, reproduced here.

Background

A dramatic increase in the prevalence of overweight and obesity among children and adolescents in the Europe Union (EU) has occurred in the last twenty years, especially the last ten years. From recent surveys³, an estimated 18% of European school children (i.e. some 14 million children out of 77 million school children in the 25 EU Member States) are overweight, with an annual incidence of between 0.55% and 1.65%, i.e. more than 400 000 new cases every year. Among the overweight children, at least 3 million are estimated to be obese, and their number is rising by more than 85 000 each year. (Overweight and obesity are defined according to the criteria for children recommended by the International Obesity TaskForce (IOTF)⁴, based on age- and gender-specific BMI cut-off points equivalent to adult BMIs of 25 kg/m² and 30 kg/m² respectively.)

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³ Lobstein, T., Baur, L., Uauy, R. Obesity in children and young people: A crisis in public health. Report to the World Health Organization by the International Obesity TaskForce. *Obes Rev* 2004; 5 (Suppl 1): 5-104.

⁴ Cole, T.J., Bellizzi, M.C., Flegal, K.M., Dietz, W.H. Establishing a standard definition for child overweight and obesity worldwide: international survey. *BMJ* 2000; 320: 1240-43.

Overweight and obese children are at an increased risk of co-morbidities, including type 2 diabetes, fatty liver disease, and endocrine and orthopaedic disorders⁵. Overweight children enter adulthood with a raised risk of adult obesity of up to 17-fold (after adjusting for parental obesity)⁶, and adult obesity in turn carries an increased likelihood of metabolic and cardiovascular diseases, certain cancers and a range of other disorders including psychiatric problems⁷. Even if subsequent weight loss is achieved and maintained, there is evidence that mortality rates are higher among those adults who had been obese as adolescents⁸.

Prevention approaches

If obesity could be effectively treated in childhood this might reduce subsequent disease risk and health service costs. However, effective treatment for the majority of obese children and adolescents remains elusive. Management protocols involving behaviour modification, family support and lifestyle change are difficult to put into practice and may require the input of multi-disciplinary professional teams⁹. Lifestyle modification requires motivation and active participation by the family and young person and is a particular challenge as the child grows into adolescence. Yet obesity in adolescence is a major risk factor for adult obesity and its co-morbidities. There is an urgent need, therefore, to focus on obesity prevention.

The evidence base for effective prevention of child obesity is poor. A Cochrane systematic review conducted in 2001 found only ten trials that were sufficiently large and of sufficient duration and sufficient quality to be included in the review¹⁰, all of which involved children who were already overweight. Three out of the four long-term studies that combined dietary education and physical activity interventions resulted in no difference in their effect on overweight. In two studies of dietary education alone, a multimedia action strategy appeared to be effective but other strategies did not. The one long-term study that focussed on physical activity resulted in a slightly greater reduction in overweight in favour of the intervention group, as did two short-term studies of physical activity. The reviewers acknowledged the difficulties researchers face when attempting to control the relevant variables and to introduce the necessary preventive measures in a consistent, uniform manner in school or family settings.

⁵ Lobstein, T., Baur, L., Uauy, R. Obesity in children and young people: A crisis in public health. Report to the World Health Organization by the International Obesity TaskForce. *Obes Rev* 2004; 5 (Suppl 1): 5-104.

⁶ Hauner, H. Transfer into adulthood. In Kiess, W., Marcus, C., Wabitsch, M. (eds.) *Obesity in Childhood and Adolescence: Pediatric and Adolescent Medicine Vol 9*. S. Karger AG: Basel, 2004, pp. 219-28.

⁷ World Health Organization. *Obesity: Preventing and managing the global epidemic*. Report of a WHO Consultation. WHO Technical Report Series no. 894. WHO: Geneva, 2000

⁸ Must, A., Jacques, P.F., Dallal, G.E., Bajema, C.J., Dietz, W.H. Long-term morbidity and mortality of overweight adolescents. A follow-up of the Harvard Growth Study of 1922 to 1935. *N Engl J Med* 1992; 327: 1350-55.

⁹ Bauer, B., Maffeis, C. Interdisciplinary outpatient management. In Burniat, W., Cole, T., Lissau, I., Poskitt, E.M.E. (eds.) *Child and Adolescent Obesity: Causes and Consequences; Prevention and Management*. Cambridge University Press: Cambridge, 2002, pp 361-376.

¹⁰ Campbell, K., Waters, E., O'Meara, S., Kelly, S., Summerbell, C. Interventions for preventing obesity in children. *Cochrane Database of Systematic Reviews* 2002; 2: CD001871.

Other literature reviews^{11 12 13} of European and North American papers have suggested that the chances of successful prevention at the community level are increased if measures are broad-based and well integrated into children's lives, such as:

- * healthy school policies involving school cafeterias, vending machines and snack bars, plentiful school-based physical activity classes and recess activities;
- * classroom health education linked to the school's food and activity practices;
- * links between school practice and home and community activities;
- * prolonged interventions rather than short-term ones, involving adults and children, at school and at home;
- * the involvement of all children, not just some, using techniques sensitive to the cultural, ethnic and gender characteristics of the children.

A review of interventions designed to encourage healthy eating patterns in children also suggested that a 'whole school' approach is better than a targeted or piecemeal intervention strategy, and that access and affordability issues need further research¹⁴. A 'whole school' approach is one which integrates the various opportunities for health promotion in the school, including classroom teaching, physical activity sessions, canteen food choices and vending machine sales. It involves children, staff and parents, and can extend health promotion through school-family and school-community links.

Other investigators have suggested that hours spent watching television may be strongly associated with weight gain in childhood¹⁵, although whether this is due to the concomitant sedentary behaviour, or a tendency to consume snack foods while watching television, or the effects of advertising of energy-dense foods during television programmes, is not clear.

¹¹ Micucci, S., Thomas, H., and Vohra, J. The Effectiveness of School-Based Strategies for the Primary Prevention of Obesity and for Promoting Physical Activity and/or Nutrition, the Major Modifiable Risk Factors for Type 2 Diabetes: A Review of Reviews. Public Health Research, Education and Development Program, Effective Public Health Practice Project. City of Hamilton: Hamilton, Ontario, 2002 [http://www.hamilton.ca/phcs/ephpp/Research/Full-Reviews/Diabetes-Review.pdf, accessed 22 June 2004].

¹² Lytle, L.A., Jacobs, D.R., Perry, C.L., Klepp, K.-I. Achieving physiological change in school-based intervention trials: what makes a preventive intervention successful? *Brit J Nutr* 2002; 88: 219-21.

¹³ Casey, L., Crumley, E. Addressing Childhood Obesity: The Evidence for Action. Canadian Association of Paediatric Health Centres: Ottawa, 2004. [http://www.caphc.org/childhood_obesity/obesity_report.pdf, accessed 22 June 2004].

¹⁴ Shepherd, J., Harden, A., Rees, R., Brunton, G., Garcia, J., Oliver, S., Oakley, A. *Young People and Healthy Eating: A systematic review of research on barriers and facilitators*. EPPI-Centre, University of London. EPPI-Centre: London, 2001 [http://eppi.ioe.ac.uk/EPPIWebContent/hp/reports/health_eating01/healthy_eating_yp.pdf, accessed 22 June 2004].

¹⁵ Lobstein, T., Baur, L., Uauy, R. Obesity in children and young people: A crisis in public health. Report to the World Health Organization by the International Obesity TaskForce. *Obes Rev* 2004; 5 (Suppl 1): 5-104.

Furthermore, television watching may be symptomatic of other factors which encourage weight gain but which are even harder to study in controlled trials. Interventions are needed which can manipulate, for example, the relative availability of different food products in local retail shops, or the level of safety in streets or parks which might affect play activities. There have been no trials of the effects of removing local fast food outlets, or the provision of safe cycling schemes for children, in terms of reducing the prevalence or risk of obesity. Environmental risk factors, or ‘obesogens’¹⁶, and the societal forces that underpin them, such as growth in road traffic, urbanisation of populations or globalisation of food supplies¹⁷ [13], are not easily controlled for research purposes, although some natural variations can be exploited. These potential obesogens are widely distributed in the community, and affect the population at large. Policies concerning their appearance, modulation or removal are shaped at city, national or international level and involve interested parties, such as car users, fast food companies and advertising agencies.

Interested parties

The differing views of the interested parties, or stakeholders, may lead to challenges to the scientific basis and strength of evidence underlying policy proposals. The absence of strong evidence for obesity and overweight prevention will undermine the political will to make changes in local or national policy to alter a child’s environment. Policy makers may find it hard to support policies which limit, for example, commercial freedom or personal choice, without having compelling evidence for the benefit of these policies. Until such evidence becomes available, precautionary activities need to be undertaken based on the best available evidence supported by a consensus of scientific opinion. In this respect, professional practitioners with expertise in child obesity and related health problems have a significant role to play.

An opportunity for the expression of expert opinion in a scientific context arose at the 13th European Congress on Obesity, held in Prague, Czech Republic (26-29 May 2004). In a workshop on childhood obesity prevention conducted by the International Obesity TaskForce and attended by sixty specialists from 17 countries and several international organisations, a number of proposals were made for action at various levels of government and by relevant non-governmental organisations (see pages 81 – 84 of this document). These recommendations can be viewed as options for consideration, and reflect a precautionary approach to the problem of childhood overweight and obesity: namely the recommendations are unlikely to raise the risk of further ill health and are consistent with the promotion of health and well-being in the population.

¹⁶ Swinburn, B., Egger, G., Raza, F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Prev Med* 1999; 29: 563-70.

¹⁷ Kumanyika, S., Jeffery, R.W., Morabia, A., Rittenbaugh, C., Antipatis, V.J. Obesity prevention: the case for action. *Int J Obes* 2002; 26: 425-36.

Policies for preventing child obesity: Proposals from a workshop on childhood obesity, Prague, 28 May 2004, convened by the International Obesity TaskForce.

In recognition that

- *excess bodyweight is pandemic and affects increasing numbers of European children*
- *vulnerable groups are especially affected, reflecting social and ethnic inequalities*
- *the costs of obesity are borne by health services and by individuals, families and society*
- *prevention of excess bodyweight is addressed most effectively at a societal level*

and believing that

- *people of all ages have the right to a high standard of physical and mental health*
- *children have a right to protection from environments that jeopardise their health*
- *responsible adults have a duty to protect children from such environments*
- *regulators at all levels have a duty to assist in the protection of children*

this meeting urges the European Commission, Member State governments, relevant authorities and responsible parties to consider the options outlined below.

European Commission options:

- Appoint an EC public health coordinator to oversee a comprehensive cross-departmental obesity prevention strategy engaging Member States, civil society and business as part of a new public health programme.
- Establish an independent public health agency to monitor progress on prevention of obesity, diabetes, cardiovascular disease and cancers, with powers to inspect the implementation of, and compliance with, prevention policies and to propose regulatory measures.
- Require health and obesity impact statements in all Commission policies (including agriculture, trade, education, media, transport).
- Introduce measures to control the marketing to children of foods with high energy density.
- Introduce a simplified food labelling scheme with clear symbols warning of high energy density, and extend food labelling requirements to include catering establishments.
- Support the development of Member State nutritional targets, and the development of food standards to help industry meet those targets.
- Support the routine monitoring of children in the Community in respect of their dietary patterns, physical activity and anthropometric measures.

- Support primary research into the social and biological links to obesity and the public health strategies needed for prevention.
- Support Member State initiatives to educate and inform parents and children about healthy lifestyles, and support healthy infant feeding practices and the promotion of breastfeeding.
- Review the technological need for organoleptic food additives (e.g. colourings and flavourings) used in energy-dense children's food products.
- Review the Commission's practices regarding staff childcare facilities.

Member State governmental options:

- Create ministerial departments in Member State governments to collaborate with the EC public health coordinator and to ensure cross governmental obesity prevention strategies.
- Require health and obesity impact statements in all government policies (including agriculture, trade, education, media, transport, urban planning).
- Extend the formal monitoring of population diet, activity and anthropometric measures (height, weight, waist circumference, BMI) and include the annual sampling of child populations.
- Develop national nutritional targets, and develop food standards to help industry meet those targets.

- Conduct health audits of commercially sponsored materials for schools, clinics etc.
- Support moves to make public sector catering the 'gold standard' for healthy eating.
- Ensure that school inspection criteria include appraisals of school health programmes, including food provision, physical activity provision, health and nutrition education.
- Invest in the education of parents and children about healthy lifestyles including the value of breastfeeding of infants.
- Use public service media to promote healthy food choices and physical activity.
- Engage TV programme and computer games makers to ensure that entertainment products support healthy diets and active lifestyles.
- Provide resources to develop effective obesity management and prevention in primary health care settings, and in referral units and specialised centres of excellence.
- Encourage the distribution of fruit and vegetables to school children, e.g. from intervention stores held under the Common Agricultural Policy.

Fiscal controls and market regulation options:

- Consider the application of sales taxes and other fiscal measures to support national nutrition targets, e.g. adding taxes to energy-dense foods, and use the revenue from these taxes to support measures for obesity prevention and health promotion.
- Consider the application of levies to recover the production subsidies for oils, sugars and dairy fats given under the Common Agricultural Policy.
- Subsidise the distribution and marketing of fruit and vegetables to children, and review tax exemptions given to the marketing of energy-dense foods to children.
- Use public procurement contracts to encourage a sustainable and expanding market for healthier food products.
- Provide subsidies for public sector facilities that encourage physical activity, e.g. provide free school usage of swimming pools, provide low-cost child passes to activity centres.

- Consider an award scheme and vouchers for foods and activities which enhance health.

Industry and retail sector options:

Food industry:

- Develop a wide range of reformulated foods which are beneficial to dietary health.
- Develop healthier alternatives to confectionery, snacks and soft drinks for children.
- Reduce the use of organoleptic additives in energy-dense foods.
- Support controls on the promotion and marketing of energy-dense foods.
- Support simple and clear labelling measures to identify energy-dense foods, and to identify foods such as fruit and vegetables which should be consumed in greater quantities.
- Develop health-promoting ready-to-eat take-away and convenience foods.

Catering industry:

- Offer child size portions of restaurant main menu items, healthy ready meals and healthy convenience foods.
- Offer all restaurant customers smaller portion options with price incentives.
- Review school meal services and reformulate to improve nutritional profile of foods offered in schools.
- Provide children and parents with school meal details, including menus and nutritional profiles.

Retailers:

- Improve the distribution and availability of healthy food options, including fruit and vegetables.
- Ensure that households in low income areas have full access to healthier food options with no price disincentive.

All private sector employers:

- Provide healthful food and activity in staff childcare facilities.
- Review staff canteen policies, encourage smaller portions and healthier

options, especially in respect of younger customers.

- Provide health education material relevant to families with children.

Research and training options:

- Undertake research into obesity management strategies and evaluation techniques.
- Develop the evidence base for effective prevention and monitoring of planned initiatives, including reliable and standardised base-line data on diet and physical activity.
- Introduce training standards for paediatric health professionals to cover nutrition, physical activity and obesity management and the management of co-morbidities.
- Provide in-service training for primary care workers in obesity recognition and management.
- Monitor and report on media balance and accuracy regarding health promotion.
- Provide media awareness and public relations training for public health professionals.

Local government options:

- Appoint a senior officer in each local authority to be responsible for integrating anti-obesity programmes and related public health measures across departments.
- Evaluate all local policies for their obesity impact, including policies in health, education, transport, economic development, planning, urban design and retail development.
- Develop performance management measures for the promotion of physical activity and nutrition standards.
- Assess policies for children under care in health, education and social service facilities to ensure protection from environments and inducements prejudicial to the children's health.
- Promote more and safer walking and cycling routes, pedestrian zoning and cycle parking provision, and discourage short-journey car use.

- Require planning authorities to ensure that new or re-located public services, including schools and clinics, are sited where their clients and staff can reach them by walking, cycling and public transport.
- Limit the numbers of fast food outlets in urban areas.
- Create opportunities for activity in public areas; remove obstacles to free movement.
- Ensure parks and play areas are clean, secure, safe and freely available to children, especially near areas of high-density housing.
- Ensure further play, sport, fitness and recreation facilities are available at low cost.
- Review procurement policies to encourage the market for healthier foods.
- Ensure freely available public drinking water facilities.
- Make exercise facilities widely available at low cost, and free on prescription.
- Incorporate gyms and play areas into health centres.

School-based options:

- Identify schools as places to set high standards for the promotion of health and well-being.
- Develop school health policies to ensure adequate pastoral care for children, with a school food and health programme developed with children, staff, parents and health professionals.
- Prohibit inappropriate food and drink marketing in schools.
- Increase media literacy training in schools.
- Develop reward schemes for choosing healthy food and activity options at school.
- Ensure parents are aware of healthier food options offered to children at school, including canteen menus and snack products on sale.
- Review the use of vending machines and the types of foods and drinks promoted in vending machines.
- Provide free, clean drinking water fountains in central locations.
- Provide adequate sports and play equipment, provide play areas and sports fields.

- Support measures to encourage safe walking and cycling to and from school, including the provision of secure cycle racks in schools and traffic-calming measures near schools.
- Offer a wide range of physical activities in schools including e.g. dance, aerobics and self-defence.
- Improve changing room facilities to improve privacy; reduce the need for changing clothes to participate in activities.

- Train teachers in social and emotional competence and anti-bullying and anti-stigma techniques.
- Encourage schools to allow their facilities to be used for after-school activities and during non-school days; make the facilities available for family and community use.

Appendix 4:

Examples of options for child obesity prevention in New South Wales (Australia) and in the USA.

New South Wales (Department of Health) Australia, 2003

Following a government-convened Childhood Obesity Summit in September 2002, the New South Wales Ministry of Health, in conjunction with the Premier's office, produced an Action Plan to prevent obesity among children and young people.¹

The document notes:

“The environment in which we now live often discourages participation in physical activity. Short trips are increasingly being made in cars. Technological ‘labour saving devices’ reduce energy expenditure. Perceived issues of community safety can limit time spent outside the home, while the design of suburbs can influence people’s transport getting to school and work or shopping.

“...Research suggests that factors such as the availability of healthy food and play opportunities in the home, rules about play and television viewing and family meal structures are likely to be important influences on the development of children’s eating and physical activity behaviours. ... In addition, approximately 30,000 school-age children in NSW attend care before and after school in out-of-school hours care services. ... Over the past decade there appears to have been a trend to children becoming less active, particularly in the 3:00 p.m.-6:00 p.m. period after school.”

Population-based measures noted in the report include:

Action	Purpose
The NSW Government will convene forums involving key stakeholder groups to explore ways of working together to prevent childhood obesity.	Creating and maintaining strong partnerships with stakeholder groups will result in: <ul style="list-style-type: none">• Stronger and more sustainable approaches to tackling the causes of childhood obesity.• Coordinated strategies that reduce duplication of effort and use resources more effectively and efficiently.• Respect for the roles and responsibilities of partners.• Cross fertilisation of ideas and expertise.• Improved opportunities to reach the community

¹ NSW Department of Health. Prevention of Obesity in Children and Young People, NSW Government Action Plan 2003-2007. Sydney: NSW Department of Health, 2003.

	with important messages.
NSW Health will establish the NSW Centre for Overweight and Obesity. The Centre will draw together the extensive expertise of key researchers in NSW.	In monitoring overweight and obesity trends and evaluating services and programmes for their effectiveness, the Centre for Overweight and Obesity will provide invaluable information to the Government and others about the best ways to prevent overweight and obesity and help us understand whether our efforts are being successful.
NSW Health will bring together an Expert Taskforce to provide recommendations on overweight and obesity support services across the state.	Support and treatment services for overweight and obese children and young people are varied throughout NSW and can be limited. The recommendations of this Expert Taskforce will assist NSW Health in developing appropriate support and treatment services including education and training, clinical services, and evaluation and research.
NSW Health will increase the support available to women to breastfeed, including providing additional funding to the NSW Branch of the Australian Breastfeeding Association.	Women will be able to give their children a healthy start if their breastfeeding is supported. Increased funding will enable the Australian Breastfeeding Association to increase its support for breastfeeding women through its helpline.
NSW Health will reinforce breastfeeding policies and services and encourage health professionals to support breastfeeding.	Updated and consistent breastfeeding policies and services in NSW will improve breastfeeding support to women. Involving the Australian Breastfeeding Association, lactation consultants, family health services and obstetricians in reviewing policies will ensure this and further raise awareness within the health system of the importance of breastfeeding.
The Department of Sport and Recreation will modify the Active Communities Grants Scheme to increase the focus on preventing childhood obesity.	Project criteria for funding under the Active Communities Grants Scheme will now have a focus on preventing childhood obesity. This will help increase the number of projects aimed at preventing childhood obesity. The NSW Active Communities Grants Scheme aims to increase opportunities for people in NSW, particularly those from disadvantaged communities or under-represented groups, to participate in physical activity at the community level. Organisations are encouraged to develop innovative programmes that attract new participants to their sport or activity.
The Roads and Traffic Authority will maintain its commitment to building off-road cycleways wherever practicable. These off-road cycle paths will link resident areas to parks, schools, shopping centres, sports grounds and other local facilities.	More off-road cycleway networks will increase children and young people's opportunities for safe physical activity as they go about their day-to-day lives.

<p>The Roads and Traffic Authority support local government to develop and construct local cycleway networks. This includes funding assistance to councils for local network development and construction.</p>	<p>More local cycleway networks will increase children and young people’s opportunities for physical activity. Many of these council projects will provide safer access for students to ride their bikes to school and other destinations.</p>
<p>NSW Health will fund a Public Health Policy Officer position at the Local Government Association of NSW and the Shires Association of NSW.</p>	<p>The Public Health Policy Officer will work with Local Government to:</p> <ul style="list-style-type: none"> • increase the profile of public health and issues such as overweight and obesity in local government • identify areas where NSW Health and local government can collaborate to improve public health and the implementation of agreed strategies • increase the capacity for the Local Government Association of NSW and the Shires Association of NSW to lead and participate in the development and promotion of public health policies.

USA Institute of Medicine, 2004, and related initiatives

Several federal agencies have expressed concern over the rising levels of child obesity in the USA, where the prevalence rates are among the highest in the world with some 20 million school-age children (age 4-18) overweight or obese. According to the Centers for Disease Control:²

“The rapid rise of child obesity can only be explained by changes in the environment that have modified calorie intake and energy expenditure. Expenditure on foods prepared outside of the home now accounts for over 40% of a family’s budget spent on food. Soft drink consumption supplies the average teenager with over 10% of their daily caloric intake. The variety of foods available have multiplied, and portion size has increased dramatically. Fewer children walk to school, and the lack of central shopping areas in our communities means that we make fewer trips on foot than we did 20 years ago. Hectic work and family schedules allow little time for physical activity. Schools struggling to improve academic achievement are dropping physical education and assigning more homework, which leaves less time for sports and physical activity. Television viewing has increased. Neighborhoods are unsafe for walking, and parks are unsafe for playing.”

² Dietz, W.H. Statement before Committee on Health, Education, Labor, and Pensions Subcommittee on Public Health, U.S. Senate, May 21, 2002, reproduced in Department of Health and Human Services Centers for Disease Control and Prevention. Nutrition, Physical Activity, and Obesity Prevention Program: Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity and Other Chronic Diseases. Atlanta: CDC, undated. See http://www.cdc.gov/nccdphp/dnpa/pdf/guidance_document_3_2003.pdf accessed 20 April 2005

This document continues with a series of brief rationales and policy strategies in several specific areas: physical activity, fruit and vegetable consumption, breastfeeding promotion, television viewing reduction, and the use of social marketing techniques.

The US Surgeon General, Dr D. Satcher, wrote in 2001:³

“Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree they are right, but it is also a community responsibility. When there are no safe, accessible places for children to play or adults to walk, jog or ride a bike, that is a community responsibility. When school lunchrooms or office cafeterias do not provide healthy and appealing food choices, that is a community responsibility. When new or expectant mothers are not educated about the benefits of breast-feeding, that is a community responsibility. When we do not require daily physical education in our schools, that is also a community responsibility ... The challenge is to create a multi-faceted public health approach capable of delivering long-term reductions in the prevalence of overweight and obesity. This approach should focus on health rather than appearance, and empower both individuals and communities to address barriers, reduce stigmatization and move forward in addressing overweight and obesity in a positive and proactive fashion.”

Responding to this challenge, the Institute of Medicine of the US National Academies was requested by the US Congress to prepare an action plan targeted at the prevention of obesity in children and youth. The report, *Preventing Childhood Obesity*,⁴ states that the action plan should aim to reduce prevalence and incidence of obesity, reduce mean BMI levels, and improve the proportion of children meeting national dietary and physical activity guidelines while ensuring that children achieve physical, psychological and cognitive developmental goals.

The report suggests that steps on the way towards these long-term goals may be evaluated through intermediate goals such as:

- Increased number of children walking or cycling to school;
- Improved access to and affordability of fruits and vegetables for low income populations;
- Increased use of community recreation facilities;
- Increased play and physical activity opportunities;
- Increased number of products and advertisements that promote energy balance at a healthy weight;
- Increased availability of healthful products at retailers within walking distance of their customers;

³ U.S. Department of Health and Human Services. *The Surgeon General's call to action to prevent and decrease overweight and obesity*. Office of the Surgeon General, US Dept of Health and Human Services: Rockville, MD, 2001.

⁴ Koplan, J.P., Liverman, C.T., Kraak, V.I. (eds.). *Preventing Childhood Obesity: Health in the Balance*. Committee on Prevention of Obesity in Children and Youth. Institute of Medicine of the National Academies. Washington: National Academies Press, 2005.

- Changes in institutional and environmental policies to promote energy balance.

The recommendations include:

- The federal government should convene a high-level task force to ensure coordination of budgets, policies, programmes and priorities. This includes strengthening research and surveillance programmes, supporting grants for nutrition and physical activity programmes, reviewing federal assistance and agricultural support programmes and funding pilot nutrition assistance projects. Government should also develop nutrition standards for foods and beverages sold in schools.
- State and local governments should implement this through supporting and strengthening policies to promote increased opportunities for physical activity and healthful eating in communities, neighbourhoods and schools, and support agencies which promote and evaluate obesity prevention interventions. Local governments should also work with communities to expand the availability of and access to healthful foods.
- Industry should develop and promote products to encourage healthful eating and physical activity, with food product innovations that consider energy and nutrient density and portion size, more healthful options at fast food outlets, and recreation products that reduce sedentary behaviours.
- The US Food and Drug Administration should strengthen food labelling requirements to display the calorie content of a portion typically consumed at one eating occasion, and allow more flexibility in the use of health claims for products able to reduce obesity risk.
- Industry should develop guidelines to ensure that advertising and marketing minimises the risk of obesity in children and youth, developed at a government-convened conference and monitored by the Federal Trade Commission.
- The Department of Health and Human Services should develop a multi-media campaign providing information to parents, children and youth through diverse media.
- Local governments and developers should revise zoning and planning practices and prioritise capital improvement projects in order to expand opportunities for physical activity using recreational facilities, parks, play areas, sidewalks, cycle routes and safer streets and neighbourhoods, especially for the populations at the highest risk of obesity.

Further strategic proposals were made in a Bill introduced into the US Senate in 2004 by Senator Tom Harkin.⁵ This included:

- Grants for schools in lower income areas to teach diet and cooking skills and create healthy environments, including nutrition environments;
- Requirements that schools form ‘wellness’ policies, with stakeholder participation;
- Assistance from government to promote wellness policies;
- Nutrition standards for all foods sold in schools;
- Ban on marketing in schools of foods of low nutritional value;
- Grants to local authorities and agencies for programmes to reduce obesity, smoking or mental illness;
- Grants to promote health among people with disabilities;
- Requirements to enhance standards for the design of roads and junctions so as to promote safety for walkers and cyclists;
- Grants of 4% of local road budgets to enhance safety for walkers and cyclists;
- Nutrition labelling displays in all restaurant chains with 20 or more stores;
- Authorisation for the Federal Trade Commission to regulate marketing of foods or beverages to children under age 18;
- Authorisation for the government to ban advertising of food products in schools;
- (For tobacco advertising, the Bill disallows companies from setting the costs of advertising against allowable business expenses for tax);
- Provision for the cost of nutrition counselling to be refunded under Medicare.

Meanwhile, state school authorities and local school boards have introduced their own standards for food supplies. An example from the Seattle School Board is shown here:

Seattle School Board: Example of an intervention to improve school foods

The Seattle School Board has approved the following criteria for foods sold in their secondary schools from snack bars, vending machines and other outlets (excluding the school meals services for which separate criteria apply).⁶ ⁽⁶⁾

Nutrition

- Total fat content must be less than or equal to 30% of total calories per serving (not including seeds and nuts)
- Saturated fat content must be less than or equal to 10% of total calories per serving
- Sugar content must be less than or equal to 15 grams per serving (not including fresh, dried or frozen fruits and vegetables)

⁵ Harkin, T. HeLP America Act, S.2558. Introduced in Senate 22 June 2004. US Congress 2004. (See <http://thomas.loc.gov/home/search.html> for S.2558 in 108th session, accessed 20 April 2004.)

⁶ Anon. Press release: Seattle School Board Approves Comprehensive Suite of Nutrition Policies “Sales of Sodas and Junk Food Banned on School Campuses”. Seattle School Board, 4 September 2004. (See <http://www.seattleschools.org/area/news/x40903nr.xml> accessed 20 April 2005.)

Portion sizes

- Beverages (except water and milk): 12 oz. (330 ml) or less
- Snacks: 1.25 oz. (40 g) or less
- Cookies/cereal bars: 2 oz. (60 g) or less
- Bakery items: 3 oz. (85 g) or less
- Frozen desserts: 3 oz. (85 g) or less
- Yogurts: 8 oz. (220 g) or less
- Other items shall be no larger than the portions of those foods served as part of the school meal programs

Beverages

- No more than 15 grams of added sugar per serving
- No caffeine
- Beverages must also meet the nutrition guidelines for fat and saturated fat
- 100% fruit juice or beverages sweetened with 100% fruit juice are allowed as long as the portion size does not exceed 12 oz. (330 ml)
- Non-fat and 1% fat chocolate milk with greater than 15 g of added sugar per serving is allowed, but with a portion size limit of 116 oz. (450 ml)
- There is no serving size limit on bottled water
- All drinks other than milk must be priced at a higher level than water, for an equivalent size serving.