Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children

NICE guideline

First draft for consultation, March 2006

If you wish to comment on this version of the guidance, please be aware that all the supporting information and evidence is contained in the full version.

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Introduction

Guidance aims

This is the first national guidance on the prevention, identification, evaluation, and management of overweight and obesity in adults and children in England and Wales. The guidance aims to:

- stem the rising prevalence of obesity and attendant rise in the prevalence of diseases associated with obesity
- improve the care provided to adults and children with obesity, particularly in primary care
- increase the effectiveness of interventions to prevent excess weight gain, overweight and obesity.

The guidance provides recommendations for good practice that are based on the best available evidence of effectiveness, including cost effectiveness. The term 'guidance', rather than 'guideline' is used to reflect the broad nature of the task: recommendations on the clinical management of overweight and obesity in the NHS and advice on the prevention of overweight and obesity that applies in both NHS and non-NHS settings.

The guidance aims to support the implementation of the 'Choosing health' White Paper, the revised GP contract and the existing national service frameworks (NSFs).

Rationale for integrated clinical and public health guidance

In 2003, the then National Institute of Clinical Excellence and Health Development Agency were commissioned by the Department of Health and the National Assembly for Wales to develop guidance on the prevention and management of obesity in children and adults. From April 2005, with the transfer to NICE of the functions of the Health Development Agency (HDA) and the creation of the new Centre for Public Health Excellence (CPHE) within the Institute, the audiences for NICE guidance extended beyond the NHS.

Public health and clinical audiences share the same need for evidence-based, cost-effective solutions to the challenges they face in their day-to-day practice, as well as to inform policies and strategies that lead to health improvement. Obesity is a prime example of a condition, where complementary clinical and public health guidance are essential to address the hazy divisions between prevention and management.

The 2004 Wanless report 'Securing good health for the whole population' highlighted that a step-change will be required to lift us on to the 'fully engaged' trajectory to reduce preventable illness and deaths from diseases such as obesity that would lead to the greatest reduction in future healthcare costs. Apart from a more effective delivery framework for health service providers nationally and locally, the report stressed an enhanced role for schools, local authorities and other public sector agencies, employers, and private and voluntary sector providers in developing opportunities for individuals to play their part in securing better health.

With more than half of the population now known to be either overweight or obese, addressing the problem of obesity through primary care management alone is likely to be impossible. Based on around 20% of the adult population being obese and around 50% overweight, it has been extrapolated that in a typical population of 100,000 there will be about 30,000 adults of working age who need help with weight management. Furthermore, while it is clear that there is no simple – or single – solution, it is likely that the most effective strategies for prevention and management will share fundamental approaches and the clinical management of obesity cannot be viewed in isolation from the environment in which people live.

This guidance will support a number of initiatives, including the achievement of the joint Department of Health, Department for Education and Skills, and Department of Culture, Media and Sports target to halt the rise in obesity among children under 11 by 2010.

Patient-centred care

All healthcare professionals should have a high standard¹ of consultation skills and use a consulting style that enables people with obesity (and their families and/or carers as appropriate) to participate in all decisions about their healthcare, taking fully into account their race, culture and any specific needs.

Surprise, anger, denial or disbelief may diminish people's ability or willingness to change. Stressing that obesity is a clinical term with specific health implications, rather than a question of how you look, may help to mitigate this.

During the consultation it would be helpful to:

- assess the patient's feelings about their weight and the diagnosis, and possible reasons for weight gain
- explore eating patterns and physical activity levels
- explore any beliefs about eating and physical activity and weight gain that are unhelpful if the individual wants to lose weight
- be aware that people from certain ethnic backgrounds may be at greater risk from obesity
- find out what, if anything, the patient has already tried and how successful this has been/why they think it didn't work
- assess readiness to adopt changes.

Evidence-based information about treatments should be available and the possible options discussed.

Patient preference, social circumstance and the experience and outcome (including the presence of any barriers) of previous treatments should be considered in determining the choice of treatment.

¹ The standards detailed in the video workbook 'Summative assessment for general practice training: assessment of consulting skills – the MRCGP/summative assessment single route' are a good example of standards for consulting skills.

The results of the discussion should be documented, and a copy of the agreed goals and actions given to the patient. Healthcare professionals should tailor support to meet the needs of individuals over the long term.

If a person (or families/carers as appropriate) does not want to do anything at this time, explain that their obesity will be discussed again in the future.

Key priorities for implementation

The prevention and management of obesity should be a priority for all, because of the considerable and well documented health benefits from maintaining a healthy weight and the health risks associated with overweight and obesity.

The following recommendations have been identified as priorities for implementation.

Public health

NHS

 All primary care settings must ensure that systems are in place – through the establishment of a local obesity strategy – to enable appropriate healthcare professionals in all settings (singly and as part of multidisciplinary teams) to implement ongoing multicomponent interventions to prevent obesity, addressing both diet and activity.

Local authorities and partners

- Local authorities should engage with local partners to consider the quality and layout of the local environment and consider options for maximising users' activity levels and creating safe spaces for incidental and planned physical activity (including cycling and walking routes and integrated play areas). As such:
 - Local authorities should actively promote new and existing schemes, with tailored information and support, particularly for inactive, vulnerable groups. Facilities should be in place to support such schemes (for example, benches, bike stands, area maps).
 - The design of all buildings and spaces should encourage users to be more physically active (for example, positioning and promotion of stairs and walkways).

Pre-school settings

- All nurseries and childcare facilities should take action to improve children's dietary intakes and physical activity levels by:
 - minimising sedentary activities during leisure time; providing regular opportunities for active play and providing structured physical activity sessions
 - implementing the Department for Education and Skills (DfES) and Food Standards Agency (FSA) guidance on food procurement and healthier catering.

All action should be supported by ongoing advice for parents.

Schools

 All head teachers and chairs of governors should undertake a full assessment of the whole of the school environment and consider the implication of all school policies on the ability of children and young people to maintain a healthy weight, eat a healthier diet and be physically active, in line with existing guidance. This includes policies relating to selection processes, new and existing building layout and the provision of open/recreational spaces, catering provision (including vending) and the food children bring into school, the taught curriculum (including physical education), all before- and after-school clubs, school travel plans and policies relating to the National Healthy Schools Programme and extended schools, as appropriate.

Workplaces

 Workplaces should provide opportunities for staff to eat a healthier diet and be more physically active. As such, all food provision for staff and clients should actively and continuously promote healthier choices, in line with existing guidance from the FSA. Workplaces should implement tailored physical activity programmes, which include ensuring a supportive physical environment (such as stairs, showers, cycle parking), working practices and policies (such as active travel

policies) and recreational opportunities (such as supporting out-ofhours social activities, use of leisure facilities/groups).

Clinical

Children and adults

 Multicomponent interventions are the treatment of choice. These should encompass behavioural treatments to increase physical activity and decrease inactivity, improve eating behaviour and quality of the diet.

Children

- Interventions for childhood obesity must address lifestyle changes within the family and social settings.
- Body mass index (BMI) is recommended as a practical estimate of general adiposity in children and young people and should be related to the UK 1990 BMI charts to give age- and gender-specific information. However, this needs to be interpreted with caution as it is not a direct measure of adiposity.
- Referral to a paediatrician should be considered for children who are overweight or obese and who have significant comorbidity or have complex needs (for example, learning or educational difficulties).

Adults

 Pharmacological treatment should usually be recommended only after dietary and exercise advice have been initiated. The decision to initiate drug treatment, and the choice of drug, should be made after discussion with the individual about potential benefits and limitations (including adverse effects and monitoring requirements). When drug treatment is offered, arrangements should be made for appropriate healthcare professionals to offer specific concomitant advice, support and counselling on diet, physical activity and behavioural strategies.

- Surgery is recommended as a treatment option for severely obese people provided all the following criteria are fulfilled.
 - There is evidence that all appropriate non-surgical measures have been tried but have failed to achieve/maintain adequate clinically beneficial weight loss for at least 6 months.
 - The person has been receiving intensive management in a specialist obesity service².
 - The person is generally fit for anaesthesia and surgery.
 - The person commits to the need for long-term follow-up.
 - Bariatric surgery is recommended as a first-line option for people with a BMI greater than 50 kg/m², and in whom surgical intervention is considered appropriate.

² The White Paper 'Choosing health. Making healthy choices easier' stated that 'each PCT area will need a specialist obesity service with access to a dietician and relevant advice on behavioural change' and that innovative clinical models should be used to improve access. ('Choosing Health. Making healthy choices easier' (2004) Department of Health. London: The Stationery Office. p143.) The GDG considered that such a service could be based in either secondary care or in community settings, depending on local arrangements.

The following recommendations are evidence based. There is a summary of the evidence on which they are based in the full version of the guidance (see section 5 for details).

1 Guidance

1.1 Public health recommendations

The recommendations on public health are divided according to their key audiences or settings:

- the public
- healthcare professionals
- local authorities and partners
- pre-schools and childcare
- schools
- workplaces.

See section 3 for information on the status of NICE guidance in different settings. Existing guidance on healthy eating and activity is summarised in appendix D.

In some sections, the recommendations are divided into (1) strategic level (primarily for those involved in planning and management of service provision and cross-organisational policies in identified settings) (2) delivery level (for individuals, teams and/or team managers).

1.1.1 Recommendations for the public

Background

Although body weight and weight gain are influenced by many factors, including genetics and the environment in which people live, the individual

decisions people make may influence whether or not they are able to maintain a healthy weight.

A person needs to be in 'energy balance' to maintain a healthy weight – that is, their energy intake (calories from food) does not exceed energy expended (for example, through everyday activities and exercise).

Many people find it difficult to maintain a healthy weight through their lives.

- People tend to gain weight gradually, over a long period of time, and such a pattern may go unnoticed.
- People tend to gain weight with age and may find it harder to maintain a healthy weight as they get older.
- People often gain weight during particular stages of their life such as during the menopause or after stopping smoking.

Small, gradual changes to daily habits, which are maintained over a long period of time, can help or hinder the ability of an individual to maintain a healthy weight. However, the effort required to gradually change long standing behaviours cannot be underestimated. This situation is not helped by the range of (often conflicting) information available on the best options for maintaining a healthy weight.

The every day habits that can help people maintain their weight are likely to have wider health benefits – such as reducing the risk of heart disease and some cancers.

Recommendations for all

- 1.1.1.1 Maintaining or achieving a healthy weight should be a priority for all, due to the considerable and well-documented health benefits from maintaining a healthy weight and the health risks associated with overweight and obesity.
- 1.1.1.2 In addition to standard advice on healthy eating and being physically active, a range of specific strategies have been identified

which may help children and adults achieve and maintain a healthy weight and can be considered 'best practice'. These are given below.

Diet

- Eating breakfast.
- Maintaining a low-fat diet and avoiding increases in fat/calorie intake.
- Keeping the consumption of the following foods to a minimum (as treats):
 - fried foods
 - drinks and confectionary high in added sugars
 - other foods high in fat and sugar, such as some 'take away' and 'fast' foods.
- Eating plenty of fibre-rich foods such as wholegrain bread, brown rice and pasta, oats, beans, peas, lentils, grains, seeds, fruit and vegetables.
- Eating at least five portions a day of a variety of fruit and vegetables. Eating fruit and vegetables instead of foods higher in fat and calories.
- For adults who consume alcohol, keeping within the recommended intake.

Activity

- Maximising opportunities for undertaking enjoyable activities as part of everyday life, such as walking, cycling and gardening and, for children, active play.
- Minimising sedentary activities, such as sitting for long periods watching television, at the computer or playing video games.
- Maximising PE participation/opportunities in schools.
- Encouraging children to participate in sport or other active recreation outside school.

- 1.1.1.3 All adults are encouraged to periodically check that they are not gradually gaining excess weight by regularly checking their weight, waist measurement, or a simple alternative.
- 1.1.1.4 Adults are encouraged to discuss any queries or concerns about their diet, activity levels and/or weight (including what a 'healthy weight' means for them) with a healthcare professional such as their nurse, GP, pharmacist or health visitor. They may also wish to consult reliable sources of information, such as those listed in appendix D.

Recommendations for parents and carers

- 1.1.1.5 Parents and carers are encouraged to discuss any queries or concerns about their children's and family's diet, activity levels and/or weight (including what a healthy weight means for them) with a healthcare professional such as their school nurse, practice nurse, GP, pharmacist or health visitor. They may also wish to consult reliable sources of information (see appendix D).
- 1.1.1.6 The importance of establishing healthy behaviours in childhood is well established, as is the idea that parents and carers are important role models for children. Therefore, parents and carers may wish to consider the best practice approaches to diet and activity in relation to weight. The options below may also have wider benefits. For example, more careful monitoring of the amount of time spent watching television may help address parental concerns about their children viewing inappropriate programmes or advertisements on television.

In addition to recommendation 1.1.1.1, it is suggested that parents and carers should try to follow the advice below.

Diet

- Children and young adults should eat regular meals, including breakfast in a supportive, social, environment free from other distractions.
- Parents and carers should regularly eat with children and young adults with all family members consuming the same foods.

Activity

- Parents and carers should encourage active play for example, simple activities such as dancing, skipping and 'catch'.
- They should try to be more active as a family for example, where possible, walking and cycling to school and shops, family outings to local park and local play areas, swimming or bowling.
- They should gradually reduce sedentary activities such as reducing the amount of time spent sitting watching television, at the computer or playing video games. In particular, it may be helpful to monitor how much they watch television as a family, considering opportunities to reduce the amount of viewing time – for example, only watching favourite programmes, setting limits – and considering alternative activities (such as games, active hobbies, walking the dog).

1.1.2 NHS: healthcare professionals

Implementing the following recommendations to tackle obesity should be a priority for local strategic partnerships, PCT boards and managers, as well as front line staff. See section 3 for a list of implementation tools to support this guidance.

In the recommendations below, 'healthcare professional' refers to all appropriately trained healthcare professionals who can provide public health advice, based in primary care and the wider community. There may also be a role for the new 'health trainers', as outlined in 'Choosing health', although their competencies and remit is currently unclear. Additional trained front-line

staff (for example, pharmacy assistants) may also be able to give opportunistic advice, provided they have received sufficient training.

Tailoring advice

Tailoring advice is fundamental to the effectiveness of interventions aimed at groups and individuals and is highlighted in many of the recommendations below. Tailoring advice to address potential barriers (such as cost, personal tastes, availability, time, views of family and community members) is particularly important for people from black and minority ethnic groups, vulnerable groups (such as those on low incomes) and people at vulnerable lifestages (such as during pregnancy, menopause or smoking cessation) . Many of the recommendations below also highlight the need to provide ongoing support – this can be in person by phone, mail or internet (as appropriate).

It is vital that all primary care settings ensure engagement with target communities, consult locally on the best mode of delivery, settings and key partnerships and ensure that interventions are client centred.

See section 3 for a list of implementation tools to support this guidance.

Overarching recommendations

1.1.2.1 Managers and appropriately trained healthcare professionals in all primary care settings must ensure that preventing and managing obesity is a priority action.

Strategic recommendations

1.1.2.2 All primary care settings must ensure that systems are in place – through the establishment of a local obesity strategy – to enable appropriate healthcare professionals in all settings (singly and as part of multidisciplinary teams) to implement ongoing multicomponent interventions to prevent obesity, addressing both diet and activity.

- 1.1.2.3 All primary care settings must address:
 - the training needs of staff.
 - the allocation of adequate time and space for appropriate action.
 - enhancement of opportunities for staff to foster effective partnerships with a range of organisations (and to develop multidisciplinary teams).
- 1.1.2.4 Local health agencies must identify appropriate healthcare professionals and ensure that they receive training in:
 - the health benefits and the potential effectiveness of interventions to prevent obesity, increase activity levels and improve dietary intakes
 - the best practice approaches in delivering such interventions including tailoring support to meet the needs of individuals over the long term
 - the use of motivational and counselling techniques.

Training will need to address barriers for healthcare professionals providing appropriate support and advice, particularly around the effectiveness of interventions, the receptiveness and ability of individuals to change, and the impact of advice on relationships with patients.

Recommendations for all healthcare professionals

- 1.1.2.5 Interventions led by healthcare professionals to increase physical activity should focus on activities that fit easily into people's everyday life (such as walking), be tailored to people's individual preferences, aim to improve self-efficacy (for example, by verbal persuasion, modelling behaviour and discussing positive effects) and provide ongoing support (including appropriate written materials).
- 1.1.2.6 Interventions led by healthcare professionals to improve dietary intakes should focus on multicomponent interventions (such as

dietary assessment, family involvement and goal setting), which are tailored to the individual and provide ongoing support.

- 1.1.2.7 Interventions led by healthcare professionals should include promotional activities, but these should be part of a long-term, multifaceted intervention rather than one-off activities (and be accompanied by targeted follow-up with different population groups).
- 1.1.2.8 All appropriate healthcare professionals should raise issues about weight, diet and activity with clients, particularly during periods associated with weight gain such as after pregnancy, menopause, smoking cessation and other major life changes.
- 1.1.2.9 All action aimed at preventing excess weight gain and improving diet and activity levels in children and young adults should actively involve parents and carers.

Recommendations for healthcare professionals working in or with primary care settings

- 1.1.2.10 Healthcare professionals who are concerned about children (aged 2 years and above) and young people potentially at risk of overweight or obesity should consider whether at least one of their parents is overweight or obese and consider their habitual diet and activity levels.
 - Families of children and young people identified as being at high risk of obesity – such as children with obese parents – should receive individualised counselling and ongoing support from an appropriately trained healthcare professional.
 - Individual as well as family-based interventions should be considered, depending on the age and maturity of the child.
- 1.1.2.11 Healthcare professionals who are concerned about adults potentially at risk of obesity should discuss with patients both their

previous weight history (for example, previous weight gain and dieting) and more recent weight gains.

- 1.1.2.12 All interventions to support smoking cessation should:
 - ensure clear links with obesity prevention and management services and provide users with information on available services as appropriate
 - provide people who are concerned about their weight with general advice on long-term weight management (encouraging increased physical activity in particular).

Recommendations for healthcare professionals working in or with broader community settings

- 1.1.2.13 All community programmes to prevent obesity, increase activity levels and improve diet should consider the fundamental concerns of local people from the outset, including cost and availability; preexisting concerns such as perceived poorer taste of healthier foods and confusion over mixed messages; and perception of risk associated with walking and cycling.
- 1.1.2.14 Relevant healthcare professionals and other staff with appropriate competencies should actively support and promote local retail and catering schemes promoting healthier choices that are consistent with existing guidance.
- 1.1.2.15 Relevant healthcare professionals and other staff with appropriate competencies should actively support and promote new and existing schemes that encourage use of local community facilities encouraging incidental and planned physical activity (including cycling and walking routes and integrated play areas), with tailored information and support based on an audit of local needs, particularly for inactive, vulnerable groups.
- 1.1.2.16 Healthcare professionals and other staff with appropriate competencies should support and promote new and existing local

schemes to help motivated groups consider their personal travel options and opportunities to be more active.

Recommendations for healthcare professionals working in or with preschool, child care and family settings

- 1.1.2.17 Programmes should incorporate a range of components (rather than focusing on parental education alone), such as:
 - diet interactive cookery demonstrations, videos and group discussions on practical issues such as meal planning, food shopping
 - physical activity interactive demonstrations, videos and group discussions on practical issues such as activity ideas, opportunities for play, safety issues, local facilities.
- 1.1.2.18 Family programmes led by healthcare professionals to prevent obesity, improve dietary intakes and/or increase physical activity levels should provide ongoing, tailored support and incorporate a range of behaviour change techniques.
 - Programmes should have a clear aim to improve weight management, otherwise they are unlikely to make improvements in weight maintenance.

Recommendations for healthcare professionals working in or with workplace settings

1.1.2.19 Healthcare professionals with appropriate competencies should establish partnerships with local businesses and support the implementation of workplace programmes to prevent obesity.

1.1.3 Local authorities and partners in the local community

The environment in which people live may influence their ability to maintain a healthy weight – this includes access to safe spaces to be active and access to an affordable, healthier diet. All local planning decisions may therefore have an impact on the health of the local population. Furthermore, the evidence

suggests that there are fundamental barriers that need to be addressed if individuals are to change their behaviour – such as concerns about safety, transport links and services. In England, local authorities and local strategic partnerships, along with PCTs have a key role in the prevention of obesity. In Wales, in addition to local authorities, health, social care and well being partnerships, local health alliances, local health boards and local public health teams are likely to fulfil this role.

The following recommendations apply to all those working within local authorities, local strategic partnerships and other local community partnerships – not just those with an explicit health role – including:

- local authorities planning, transport, leisure, catering, public health, environmental health, children's, education, housing, cultural and social services
- directors of public health, public health advisers and commissioners of services
- community-based and voluntary organisations
- children's trusts and research units.

See section 3 for a list of implementation tools to support this guidance. The recommendations should be considered in the context of existing regulations such as building control regulations, particularly in relation to access for people with disabilities.

Local authorities and their partners are strongly encouraged to monitor and evaluate the impact of all local action (including action that is not directly related to health). The positive and negative impact of all policies should be considered. The evaluation of projects should be an integral part of funding.

Overarching recommendations

1.1.3.1 Local authorities, PCTs and local strategic partnerships must ensure that preventing and managing obesity is a priority for action through community interventions, policies and objectives.

Strategic recommendations

- 1.1.3.2 Local authorities and PCTs should effectively engage with the local community (through consultation and new and existing networks) to identify and address local environmental barriers to physical activity and healthier eating. As such:
 - Local authorities should undertake a local audit of barriers to and opportunities for promoting healthier eating and physical activity, engaging with the full range of partners including local PCTs, residents, businesses and institutions (including voluntary and religious) and all those responsible for maintaining the wider environment. The needs of all subgroups should be considered, as barriers may vary by, for example, age, gender, social status, ethnicity, religion and whether an individual has a disability.
 - Local authorities should facilitate links between healthcare professionals and relevant organisations (including planning, transport and leisure services) to ensure that all wider local public policies support enhanced access to healthier foods and opportunities for physical activity (through undertaking health and environmental impact assessments).
 - Local authorities should identify from the outset any risks associated with local policies which (i) it perceives and (ii) the local community perceives, as potentially hindering action to improve activity levels and healthier eating. Local authorities should address as a priority any identified concerns around safety, crime and inclusion and consider measures which support active lifestyles such as the provision of safe spaces such as parks, and play spaces, and cleaner, safer streets through measures such as traffic calming, congestion charging,

pedestrian crossings, cycle routes, lighting and walking schemes.

- 1.1.3.3 Local authorities should engage with local partners to consider the quality and layout of the local environment and consider options for maximising users activity levels and creating safe spaces for incidental and planned physical activity (including cycling and walking routes and integrated play areas). As such:
 - Local authorities should actively promote new and existing schemes, with tailored information and support, particularly for inactive, vulnerable groups. Facilities should be in place to support such schemes (for example, benches, bike stands, area maps).
 - The design of all buildings and spaces should encourage users to be more physically active (for example, positioning and promotion of stairs and walkways).

Recommendations focusing on specific interventions

- 1.1.3.4 Schemes to provide personalised travel plans to increase active travel among targeted motivated subgroups should be implemented.
- 1.1.3.5 Local authorities and their partners should encourage all local shops, supermarkets and caterers to actively and continuously promote healthier food choices, in line with existing guidance, through signs, posters, pricing and positioning of products.
- 1.1.3.6 All community programmes to prevent obesity, increase activity levels and improve diet should consider the fundamental concerns of local people from the outset, including cost and availability; preexisting concerns such as perceived poorer taste of healthier foods and confusion over mixed messages; and perception of risk associated with walking and cycling.

1.1.3.7 Community-based interventions should include promotional activities, but these should be part of a longer-term, multicomponent intervention rather than one-off activities.

1.1.4 Pre-school and childcare settings

The pre-school years are known to be a key stage in the life course for shaping attitudes and behaviours, and childcare providers may play an important role – by providing opportunities for children to be active and develop healthy eating habits and by acting as positive role models.

The following recommendations apply to:

- directors of education and directors of children's services
- children and young people's strategic partnerships
- all staff, including senior management, in childcare and pre-school settings
- children's trusts and centres, and Healthy Start and Sure Start teams.

See section 3 for a list of implementation tools to support this guidance.

The following recommendations will support:

- children and young people's plan
- local area agreement commitments to children and young people
- Sure Start initiatives
- the joint Department of Health, DfES and Department for Culture, Media and Sport (DCMS) target to halt the year-on-year rise in obesity among children under 11 by 2010. The recommendations may also support a range of other public service agreements
- recommendations outlined in the National Service Framework for Children.

Recommendations

- 1.1.4.1 All nurseries and childcare facilities should ensure that preventing excess weight gain and improving children's diet and activity levels are priorities.
- 1.1.4.2 All action aimed at preventing excess weight gain and improving diet and activity levels in children should actively involve parents and carers.
- 1.1.4.3 All nurseries and childcare facilities should take action to improve children's dietary intakes and physical activity levels by:
 - minimising sedentary activities during leisure time; providing regular opportunities for active play and providing structured physical activity sessions
 - implementing DfES and FSA guidance on food procurement and healthier catering.

All action should be supported by ongoing advice for parents.

1.1.4.4 All carers should ensure that children eat regular, healthier meals in a supportive, social environment free from other distractions. Children should be supervised at all mealtimes and if possible, carers should eat with children.

1.1.5 Schools

Background

The school years are a key time for shaping attitudes and behaviours. Lifelong habits which can have an impact on an individual's ability to maintain a healthy weight may be established during the school years. Improving children's diet and activity levels may also have a positive impact on school work and academic achievement. Parents are ultimately responsible for their children's development but schools also play an important role by providing opportunities for children to be active, develop healthy eating habits and by providing important role models. There is no evidence to suggest that school

based interventions to prevent obesity improve diet and increase activity levels foster eating disorders or extreme dieting or exercise behaviour.

The following recommendations apply to:

- directors of education and directors of children's services
- all staff, including senior management, in school settings
- school governors
- healthcare professionals working in or with schools
- children and young people's strategic partnerships
- children's trusts
- children and young people
- parents³.

See section 3 for a list of implementation tools to support this guidance.

Overarching recommendation

1.1.5.1 All schools should ensure that improving the diet and activity levels of children and young people is a priority for action to help prevent excess weight gain and to help raise standards. A life-long learning approach should be used to promote diet and activity.

Strategic recommendations

1.1.5.2 All head teachers and chairs of governors should undertake a full assessment of the whole of the school environment and consider the implication of all school policies on the ability of children and

³ In the following recommendations, 'family' or 'parents' primarily refers to nuclear family members, and principal carers of children not living in a traditional family environment, although it may also include extended family members as appropriate. However, note that the recommendations are predominantly based on research that involved nuclear families (that is, one or more children, living with one or two parents).

young people to maintain a healthy weight, eat a healthier diet and be physically active, in line with existing guidance. This includes policies relating to selection processes, new and existing building layout and the provision of open/ recreational spaces, catering provision (including vending) and the food children bring into school, the taught curriculum (including PE), all before and after school clubs, school travel plans and policies relating to the National Healthy Schools Programme and extended schools, as appropriate.

- 1.1.5.3 All head teachers and chairs of governors should ensure that all relevant staff, including teaching, support and catering staff, receive training in order that they are aware of the importance of healthy school policies and are able to effectively support the ongoing implementation of relevant policies.
- 1.1.5.4 Those developing interventions in schools should seek to establish links with local healthcare professionals, those delivering the physical education, school sport and club links strategy, county sports partnerships and the children and young people's strategic partnership.
- 1.1.5.5 Short-term interventions and one-off events should be avoided. To ensure effectiveness, interventions should be sustained, multicomponent, and address the whole school environment and the wider local community.

Recommendations for health and other professionals, teachers and parents

1.1.5.6 Those delivering physical education, sport and physical activity should promote activities which children and young people find enjoyable and which can be undertaken within their every day lives outside school, both in childhood and through into adulthood.

- In order to support a life-long learning approach to physical activity, schools should focus on developing physical literacy skills as early as possible.
- 1.1.5.7 Schools should ensure that children and young people eat meals in a supportive, social environment free from other distractions.Younger children should be supervised at all mealtimes and if possible, staff should eat with children.

Children and parents

- 1.1.5.8 All interventions should actively consider the views of children and young people, take into account any differences in preferences between boys and girls and address potential barriers (such as cost or the perceived taste of healthier options).
- 1.1.5.9 School-based interventions should engage parents where possible

 for example, though invitation to special events, regular
 newsletters, and information on lunch menus and after-school
 activities.
- 1.1.5.10 Parents should be encouraged to consider their child's journey to school when choosing schools and how this will influence whether their child's overall activity levels.

1.1.6 Workplaces

Background

In addition to having responsibility for health and safety policies, the workplace has considerable potential for addressing wider public health issues, such as obesity. It may affect people's ability to maintain a healthy weight both directly – by supporting healthier choices (for example, in on-site catering and vending machines, or by providing changing facilities) – and indirectly – through the overall culture of the organisation (for example, through appropriate policies and incentive schemes). Although addressing

obesity is not a core aim of workplaces, taking action may result in significant benefit for employers as well as employees.

The recommendations apply to a range of internal and external staff, including:

- senior managers
- health and safety managers
- occupational health
- unions and staff representatives
- healthcare professionals in positions to establish partnerships with local businesses.

The ability of a workplace to take action is strongly influenced by its size and the availability of on-site occupational health leads. The recommendations below are therefore divided into:

- those that all organisations may be able to achieve, with sufficient input and support from a range of staff, including senior management
- those that are resource intensive and which may only be fully achieved by the NHS, public bodies and larger private organisations.

See section 3 for a list of implementation tools to support this guidance.

Overarching recommendation

1.1.6.1 All workplaces are encouraged to address the prevention and management of obesity because of the considerable impact on the health of the workforce and associated costs to industry.

Recommendations for all workplaces

1.1.6.2 Workplaces should provide opportunities for staff to eat a healthier diet and be more physically active. As such, all food provision for staff and clients should actively and continuously promote healthier

choices, in line with existing guidance from the FSA. Workplaces should implement tailored physical activity programmes, which include ensuring a supportive physical environment (such as stairs, showers, cycle parking), working practices and policies (such as active travel policies) and recreational opportunities (such as supporting out-of-hours social activities, use of leisure facilities/groups).

- 1.1.6.3 Workplaces should establish cross-organisational policies that actively promote and facilitate physical activity through:
 - walking and cycling to and from work, and between work sites (particularly through supportive travel plans and policies, and the provision of appropriate facilities such as showers, secure space for bikes)
 - walking and cycling opportunities during break time at work (for example, lunchtime walks)
 - stair use (through a good quality environment, including signposting walking routes and making improvements to décor).
- 1.1.6.4 Workplaces that implement incentive schemes (such as policies on travel expenses, the price of food and drinks sold in the workplace and contributions to gym membership) should ensure that they are sustained and part of a wider programme to support staff to manage weight, improve diet and increase activity levels.

Recommendations for NHS, public organisations and large commercial organisations

- 1.1.6.5 Workplaces providing health checks for staff should ensure that they address weight, diet and activity, and provide ongoing support.
- 1.1.6.6 Action to improve food provision in the workplace should be supported by tailored educational and promotional programmes, such as a behavioural intervention and/or environmental changes (for example, food labelling or changes to availability).

 For action to improve food provision in the workplace – including hospitality, on-site restaurants, vending machines and shops – to be effective it is likely that the following will be required, as appropriate: commitment from senior management, enthusiastic catering management, a strong occupational health lead, links to other on-site health initiatives, supportive pricing policies and heavy promotion and advertisement at point of purchase.

1.1.7 Management of obesity in non traditional settings

The following is considered 'best practice' for self-help weight management strategies⁴. Strategies should:

- help individuals assess their weight and decide on a realistic healthy target weight
- recommend a maximum weekly weight loss of 0.5–1kg (1–2lbs)
- focus on long-term, lifestyle changes rather than a short-term, quick fix approach
- be multicomponent (addressing both diet and activity), offering a variety of approaches
- use a balanced, healthy eating approach
- recommend regular physical activity (particularly activities which can be part of an individual's daily life, such as brisk walking and gardening) and offer practical safe advice about being more active
- include some behaviour change techniques, such as keeping a diary; how to cope with 'lapses' and 'high-risk' situations
- recommend and/or provide some form of ongoing support.

⁴ ¹Based on information from the British Dietetic Association 'Weight Wise' Campaign.

Strategic recommendations for local strategic health agencies and local authorities

1.1.7.1 There are many providers and services that may contribute to and collaborate with local heath agencies to help address overweight and obesity. However, these are of variable quality. It is vital that these services meet minimum standards in terms of best practice, staffing and facilities. Local strategic health agencies and local authorities should together undertake an audit of local services or invite local providers to submit information to them which demonstrates that minimum thresholds are being met. Only on receipt of such information should potential providers and services be recommended to patients, and/or tender agreements or collaborations be considered.

Recommendations for healthcare professionals (working in primary care or community settings)

- 1.1.7.2 Healthcare professionals are encouraged to discuss the full range of potential weight management options with individuals interested in losing or maintaining their weight, or those identified at risk of weight gain, and help them identify an approach which best suits their circumstances and that they will be able to sustain in the long term.
- 1.1.7.3 GP practices and other primary care settings should only consider commercial and self-help programmes (which meet best practice guidance) alongside, and not as an alternative to, interventions led by healthcare professionals in primary care.
- 1.1.7.4 Healthcare professionals considering any commercial or self-help weight loss programme(s) to recommend to individuals are encouraged to check that they adhere to best practice.Programmes not in line with best practice are not recommended.

Recommendations for the public

The following recommendation applies to adults only. Children and young adults concerned about their weight should speak to nurse or GP.

1.1.7.5 Individuals should be aware that weight loss programmes (including commercial or self-help groups, slimming books, websites) that are not based on a balanced healthy diet, do not encourage regular physical activity and expect to produce a weekly weight loss of more than 0.5–1 kg (1–2 lb) are not recommended. Such programmes are unlikely to be effective in the long term. Individuals with other health conditions – such as diabetes – should speak to their nurse or GP before starting a weight loss programme.

1.2 Clinical recommendations

Note: (Adult) denotes a recommendation for adults only; (Child) denotes a recommendation for children only.

1.2.1 Generic principles of care

1.2.1.1	The overall aim is to create	The physical environment in any		
	a supportive environment	clinical setting should be		
	which facilitates lifestyle	appropriately equipped for the		
	change for the overweight	treatment of people who are severely		
	or obese child and family.	obese. For example, the provision of		
	(Child)	special seating, and adequate		
		weighing equipment. (Adult)		
1.2.1.2	The approach to treatment	The choice of any intervention for		
	and management of the	weight management must be made		
	child should be a process	through negotiation between the		
	of collaborative	individual and the healthcare		
	assessment and	professional. (Adult)		
	agreement of goals and			
	actions, and be tailored to			
	each individual family.			

	(Child)	
1.2.1.3	Interventions for childhood	Any component of the planned weight
	obesity must address	management programme should be
	lifestyle changes within the	tailored to the individual's
	family and social settings.	preferences, initial fitness, health
	(Child)	status, and lifestyle. (Adult)

- 1.2.1.4 Parents (carers) should be encouraged to take prime responsibility for lifestyle change in overweight or obese children, especially under 12 years of age. However, the age and maturity of the child, and the preferences of the child and the parents should be taken into account. **(Child)**
- 1.2.1.5 Regular long-term follow up by an appropriately trained professional should be offered. Continuity of care within the multidisciplinary team should be ensured through good record keeping.

1.2.2 Identification and classification of overweight and obesity

Opportunistic identification

- 1.2.2.1 Routine measurement of height and weight is not recommended for adults. (Adult)
- 1.2.2.2 Health care practitioners should use their clinical judgement to determine whether measuring the height and weight of an individual is appropriate.

Measures of overweight or obesity

1.2.2.3	BMI is recommended as a	Healthcare professionals should use		
	practical estimate of	BMI as a measure of general		
	general adiposity in	adiposity in adults. (Adult)		
	children and young people,			
	but needs to be interpreted			
	with caution as it is not a			

	direct measure of	
	adiposity. (Child)	
1.2.2.4	Waist circumference is not	Healthcare professionals may use
	recommended as a routine	waist circumference as a valuable
	measure but may be used	measure of central adiposity in adults
	to give additional	with a BMI less than 35 kg/m ² ,
	information, as	although it should not be used alone
	appropriate. (Child)	due to high false-negative rates.
		(Adult)

- 1.2.2.5 Waist-to-hip ratio is not recommended as a measure of central adiposity.
- 1.2.2.6 Bioimpedance is not recommended as a substitute for BMI as a measure of general adiposity.

Classification of overweight or obesity

1.2.2.7	BMI measurement in	The degree of overweight or obesity		
	children and young people	in adults should be defined as follows:		
	should be related to the UK	(Adult)		
	1990 BMI charts to give	Classification	BMI (kg/m²)	
	age- and gender-specific	Underweight	Less than 18.5	
	information. (Child)	Healthy weight	18.5–24.9	
		Overweight	25–29.9	
		Obesity I	30–34.9	
		Obesity II	35–39.9	
		Obesity III	40 or more	

1.2.2.8 The degree of overweight or obesity in Asian adults⁵ should be classified as follows: **(Adult)**

⁵ Populations included in review for expert consultation included those from China, Hong Kong, India, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.

Classification BMI (kg/m ²)	BMI (kg/m²)
Underweight	Less than 18.5
Healthy weight	18.5–22.9
Overweight	23 or over
At risk	23–24.9
Obesity I	25–29.9
Obesity II	30 or more

1.2.2.9 Overweight in older adults should be defined as follows: (Adult)

Age	BMI (kg/ m ²) – overweight
65–74	27 or more
75 or older	28 or more

1.2.2.10	Children with a	Risk assessment in non-Asian adults should			
	BMI at or above	be determined using BMI and waist			
	the 98th centile	circumference as follows: (Adult)			
	should be	Waist circumference (cm)			
	considered for			0.4.400	
	assessment of	Classification	Men	94–102	More than
	comorbidity.				102
	(Child)		Women	80–88	More than
	. ,				88
		Underweight			
		Healthy			Increased ⁶
		weight			
		Overweight		Increased	High
		Obesity		High	Very high

1.2.2.11 Risk assessment in Asian adults should be determined using BMI and waist circumference as follows: (Adult)

⁶ Definitions as in Obesity: preventing and managing the global epidemic. Report of a WHO Consultation. World Health Organisation. WHO Technical Report Series 894(3):i-253, 2000.

	Waist circum	ference (cm)	
Classification	Men	Less than 90	90 or more
	Women	Less than 80	80 or more
Underweight		Low (but increased	Average
		risk of other clinical	
		problems)	
Healthy weight		Average	Increased ⁷
Overweight			
At risk		Increased	Moderate
Obese I		Moderate	Severe
Obese II		Severe	Very severe

1.2.2.12 Individuals should be given information about their classification of clinical obesity and the impact this has on risk factors for developing other long-term health problems. (Adult)

1.2.3 Assessment

1.2.3.1	In children and young	After discussing weight with the
	people, assessment should	individual and appropriate
	consider the following	measurement taking, assessment
	factors: (Child)	should take into account: (Adult)
	 presenting symptoms 	 presenting symptoms and
	and underlying causes	underlying causes of obesity
	of obesity	 comorbidities⁸ and risk factors
	 comorbidities and risk 	(specifically to measure blood
	factors;	pressure, lipid profile, and
	 psychosocial distress, 	glucose)
	for example self esteem,	 lifestyle, environmental,

⁷ Definitions as in International Obesity Taskforce and International Association for the Study of Obesity World Health Organisation. The Asia-Pacific perspective: redefining obesity and its treatment. Hong Kong: WHO, IOTF, and IASO. 2000.

⁸ To include diabetes, hypertension, cardiovascular disease, and osteoarthritis.

teasing, bullying;	psychosocial distress, social and
 family history of obesity 	family factors, including family
and comorbidities;	history of obesity and
 lifestyle (diet and 	comorbidities
physical activity);	 willingness and motivation to
environmental, social	change
and family factors that	 potential to gain health benefits
may contribute to	with weight loss
causation/treatment	 psychological problems
success;	 medical problems and medication
 willingness and 	eating behaviour
motivation to change.	Healthcare professionals need to use
	clinical judgement to ensure that each
	of the factors above are investigated
	in an appropriate level of detail,
	depending on the individual, the
	timing of the assessment, the degree
	of overweight or obesity, and the
	results of previous assessments.

- 1.2.3.2 The following parameters identified in the NHMRC Guidelines⁹ should be considered in the assessment in secondary care of overweight and/or obese children and young people: (Child)
 - fasting lipid profile
 - fasting insulin and glucose
 - liver function test(s)
 - endocrine investigation(s) as clinically indicated
 - genetic test(s) as clinically indicated.

These tests need to be performed and results interpreted in the context of greater degree of obesity, increasing age, history of

⁹ National Health and Medical Research Council, Australia.

comorbidities, possible genetic causes and a family history of metabolic disease related to obesity.

- 1.2.3.3 Healthcare professionals should recognise that some individuals will be unwilling to change or to address their obesity. Such individuals should be offered the option to return for further consultations when they are ready to make lifestyle changes. **(Adult)**
- 1.2.3.4 Information should be provided to individuals and families and/or carers as appropriate on the reasons for tests, their results and meaning, the requirements for specific investigations and the logistics of obtaining them.
- 1.2.3.5 It may take more than one consultation to fully explore the appropriate options for treatment and a full assessment may lead to a wait for test results. Continuity of care is important and, if care cannot be provided by the same healthcare professional, it is important that record keeping is clear and consistent. This will allow for a rapid review of progress to date by other healthcare professionals, and reassure the patient that they are receiving the appropriate treatment.

1.2.4 Lifestyle interventions

General

1.2.4.1 Multicomponent interventions are the treatment of choice. Weight management programmes should incorporate some component of behaviour change¹⁰ to bring about improvements in physical activity levels and diet. This could include increasing physical activity and decreasing inactivity, improving eating behaviour and quality of the diet.

1.2.4.2	Parents of overweight or	Partners or spouses of the individual
	obese children and young	should be encouraged to provide

¹⁰ See recommendations on behavioural interventions for details.

people who themselves	support in any weight management
are overweight or obese	programme. (Adult)
should be encouraged to	
lose weight. (Child)	

- 1.2.4.3 The level of intensity of the intervention should be based on the level of risk, and the potential to gain health benefits. (Adult)
- 1.2.4.4 Any healthcare professional involved in the delivery of interventions for weight management must have the relevant competencies and have undergone appropriate training.
- 1.2.4.5 Information should be provided in formats, languages and ways that are suited to the individual. When talking to patients and carers, healthcare professionals should use everyday, jargon-free language. If technical terms are used they should be explained to the patient. Consideration should be given to:
 - developmental age
 - gender
 - culture
 - stage of life.
- 1.2.4.6 To encourage the patient through the difficult process of changing established behaviour, it is important for the healthcare professional to praise success at every opportunity, however small this may be.
- 1.2.4.7 Individuals with obesity and their families and/or carers should be given and have access to sources of information on:
 - obesity in general
 - realistic targets for achievable weight loss
 - diagnosis and treatment options
 - medication and side effects
 - surgical treatments

- psychological management and self-care
- voluntary organisations, support groups etc and how to contact them.

Adequate time should be set aside in the consultation to provide information and for questions to be answered.

Behavioural interventions

1.2.4.8	Behavioural interventions	Behavioural interventions including
	including the following	the following components are
	components are	recommended: (Adult)
	recommended: (Child)	cue avoidance
	stimulus control	 self-monitoring
	 self monitoring 	 stimulus control
	 goal setting 	 slowing rate of eating
	 rewards for goal 	 social support, planning
	attainment	 problem solving
	 problems solving skills 	 assertiveness
	Although not strictly defined	 cognitive restructuring
	C	 modifying thoughts
	as behavioural techniques, praise and the use of role-	 reinforcement of changes
modelling of desired behaviours by parents are	 relapse prevention 	
	• strategies for dealing with weight	
	also recommended.	gain.

1.2.4.9 Any behavioural intervention should be delivered with the support of an appropriately trained professional.

Physical activity

1.2.4.10 Children should be	Individuals should be encouraged to
encouraged to reduce	increase their physical activity even if
sedentary behaviours,	weight loss is not achieved, as other
such as sitting watching	health benefits can be gained.

	television, at the computer	(Adult)
	or playing video games.	
	(Child)	
1.2.4.11	Children should be given	Individuals aiming to lose weight
	the opportunity and	should be encouraged to do at least
	support to do more regular	30 minutes of at least moderate
	lifestyle activity (such as	intensity physical activity on 5 or more
	walking, cycling, using the	days a week (a total of 150 minutes).
	stairs, active play). (Child)	(Adult) ¹¹
1.2.4.12	Children should be given	The type of physical activity
	the opportunity and	recommended includes
	support to do more regular,	that which can be incorporated
	structured physical	into everyday life – such as brisk
	activity/exercise. This	walking or cycling, or
	could include activities	• supervised exercise programmes.
	such as sports, swimming	
	or dancing. (Child)	Other activity – such as steps walked
		per day, or stair-climbing – is also
		recommended.
		Individuals should also be
		encouraged to reduce the amount of
		time they spend inactive, such as
		watching television, or using the
		computer. (Adult) ¹²

Dietary advice

1.2.4.13 A dietary approach alone is not recommended. Any dietary recommendations must be made as part of a multicomponent intervention. **(Child)**

¹¹ From the report At least five a week. Evidence on the impact of physical activity and its relationship to health. Chief Medical Officer Annual Report. London: Department of Health. 2004.

¹² As above. From the CMO Annual report.

1.2.4.14 Any dietary changes should be age appropriate and consistent with healthy eating advice. **(Child)**

1.2.4.15	The dietary	The main requirement of a dietary
	recommendations in	approach to weight loss is a reduction
	weight management	in total energy intake, with energy
	should aim to bring about a	expenditure exceeding energy intake.
	reduction in total energy	(Adult) ¹⁴
	intake, with energy	
	expenditure exceeding	
	energy intake. Changes	
	should be sustainable.	
	(Child) ¹³	

1.2.4.16 A 600 kcal/day deficit (600 kcal less than the required calorie intake) or low-fat diet, in combination with expert support and intensive follow-up, is the recommended approach for sustainable weight loss.

A low calorie diet (1000–1600 kcal/day) could also be considered. (Adult)

1.2.4.17	The dietary changes should	Other dietary approaches such as
	be individualised, tailored	very low-calorie diets
	to food preferences and	(< 1000 kcal/day, or protein sparing
	allow for flexible	modified fasts of 1000 kcal/day or
	approaches to reducing	less) can be used in the short term.
	calorie intake. (Child)	However, in the longer term, any
		recommended diet should be
		consistent with other healthy eating
		advice and a balanced diet. (Adult)

¹³ From Prevention review on the Determinants of Weight Gain and Weight Maintenance.

¹⁴ As for children.

1.2.4.18 Restrictive and unbalanced diets should not be used, as they are ineffective in the long term and potentially harmful. **(Child)**

1.2.5 Pharmacological interventions

General – indications and initiation

1.2.5.1 Drug treatment is not generally recommended for children aged under 12 years. (Child)

1.2.5.2	In children aged under 12	The decision to initiate drug
	years, obesity drug	treatment, and the choice of drug
	treatment may be used	should be made after discussion with
	only in exceptional	the individual about potential benefits
	circumstances if severe	and limitations (including adverse
	life-threatening	effects and monitoring requirements).
	comorbidities are present.	Pharmacological treatment should
	Prescribing should be	usually only be recommended after
	initiated and monitored	dietary and exercise advice have
	only in specialist paediatric	been initiated. (Adult)
	settings. (Child)	
1.2.5.3	In children aged 12 years	When drug treatment is offered,
	and older with physical or	arrangements should be made for
	severe psychological	appropriate healthcare professionals
	comorbidities, the	to offer specific concomitant advice,
	prescribing of orlistat or	support and counselling on diet,
	sibutramine should only be	physical activity and behavioural
	initiated in a specialist	strategies. (Adult)
	paediatric setting, by	
	multidisciplinary teams with	
	experience of prescribing	
	in this age group. (Child)	
1.2.5.4	Prescribing of orlistat or	Prescribing of any pharmacological
	sibutramine for obesity	treatment should be done in
	should only be undertaken	accordance with the summary of

by a multidisciplinary team	product characteristics. (Adult)
which can provide	
expertise in: (Child)	
drug monitoring	
 psychological support 	
 behavioural 	
interventions	
 physical activity. 	

1.2.5.5 Drug treatment should only be initiated in specialist care, but continued treatment may be prescribed in primary care if local circumstances and/or licensing allow. (Child)

Continued prescribing and withdrawal

1.2.5.6	A 6–12-month trial of	Regular review is recommended to
	orlistat or sibutramine is	monitor the effect of drug treatment,
	recommended, with regular	and to reinforce lifestyle advice and
	review to assess	adherence. (Adult)
	effectiveness, adverse	
	effects and adherence.	
	(Child)	

- 1.2.5.7 Withdrawal of drug treatment should be considered in people who do not lose adequate weight (see individual drug recs for details).(Adult)
- 1.2.5.8 Rates of weight loss can be slower in people with diabetes, so less strict goals of weight loss (as for orlistat and sibutramine) may be appropriate. These goals should be agreed with the individual and reviewed on a regular basis. (Adult)
- 1.2.5.9 A registry on the use of orlistat and sibutramine in young people should be setup, and prescribing of these drugs should only be

undertaken if the prescriber is willing to submit data to this registry. (Child)

Orlistat

- 1.2.5.10 Orlistat should be prescribed only as part of an overall treatment plan for management of obesity in adults who meet one of the following criteria: (Adult)
 - a BMI of 28.0 kg/m² or more with associated risk factors
 - a BMI of 30.0 kg/m² or more.¹⁵
- 1.2.5.11 Continuation of this therapy beyond 3 months should be supported by evidence of a loss of at least 5% of initial body weight from the start of drug treatment. (See also 1.2.5.8 for weight loss in people with diabetes). (Adult)
- 1.2.5.12 The decision to use drug treatment for longer than 12 months (usually for weight maintenance) should be made after discussion with the individual about potential benefits and limitations. (Adult)
- 1.2.5.13 Vitamin supplementation should be considered for individuals in vulnerable groups, such as older people or young people.
- 1.2.5.14 The co-prescribing of orlistat with other pharmacotherapy aimed at weight reduction is not recommended. **(Adult)**

Sibutramine

- 1.2.5.15 Sibutramine should be prescribed only as part of an overall treatment plan for management of obesity in adults who meet one of the following criteria: (Adult)
 - a body mass index (BMI) of 27.0 kg/m² or more if other obesityrelated risk factors such as type 2 diabetes or dyslipidaemia are present
 - a BMI of 30.0 kg/m² or more.¹⁶

¹⁵ From 'Summary of product characteristics'.

- 1.2.5.16 Sibutramine should not be prescribed unless adequate arrangements for monitoring both weight loss and adverse effects (specifically pulse and blood pressure) can be made available.
 (Adult)
- 1.2.5.17 Treatment is not currently recommended beyond the licensed duration of 12 months. However, there is emerging evidence on longer-term use for weight maintenance, and prescribers should be aware of the latest evidence. (Adult)
- 1.2.5.18 The co-prescribing of sibutramine with other pharmacotherapy aimed at weight reduction is not recommended. (Adult)

1.2.6.1 Referral to specialist care should be Referral to a paediatrician should be considered for considered if: (Adult) children who are the underlying causes of obesity overweight or obese and need to be assessed, or who have significant • the individual has complex comorbidity or have disease states and/or needs that complex needs (for cannot be managed adequately in example, learning or either primary or secondary care, educational difficulties). or (Child) conventional treatment has failed in primary or secondary care, or drug therapy is being considered for an individual with a BMI > 50 kg/m^2 , or specialist interventions (such as a very-low-calorie diet) may be required, or • surgery is being considered.

1.2.6 Referral to secondary and specialist care

¹⁶ From 'Summary of product characteristics'.

1.2.6.2 Arrangements for transitional care should be made for young people who are moving from paediatric to adult services. **(Child)**

1.2.7 Surgical interventions

1.2.7.1	Young people being	Surgery is recommended as a
	considered for bariatric	treatment option for people with
	surgery should have	severe obesity providing all of the
	achieved or nearly	following criteria are fulfilled: (Adult)
	achieved physiologic	• there should be evidence that all
	maturity. (Child)	appropriate non-surgical
		measures have been tried but
		have failed to achieve/maintain
		adequate clinically beneficial
		weight loss for at least 6 months
		 this type of surgery should be
		considered only for people who
		have been receiving intensive
		management in a specialist
		obesity service ¹⁷
		 individuals should be generally fit
		for anaesthesia and surgery
		 individuals should commit to the
		need for long-term follow-up.

1.2.7.2 Bariatric surgery for young people (including children aged under16 years) should only be undertaken in a surgical unit withexpertise in bariatric surgery. Currently, this will be an adult surgical

¹⁷ The White Paper 'Choosing Health. Making healthy choices easier' stated that 'each PCT area will need a specialist obesity service with access to a dietician and relevant advice on behavioural change' and that innovative clinical models should be used to improve access. ('Choosing Health. Making healthy choices easier' (2004) Department of Health. London: The Stationery Office. p143.) The GDG considered that such a service could be based in either secondary care or in community settings, depending on local arrangements.

unit with specialist paediatric support (nursing, anaesthesia, psychology, postoperative care) provided. **(Child)**

1.2.7.3	Surgery for obesity should	Surgery for obesity should only be	
only be undertaken in a		undertaken by a multidisciplinary	
	MDT which can provide	team that can provide appropriate:	
paediatric expertise in:		(Adult)	
	(Child)	 pre- and postoperative 	
	 pre- and postoperative 	assessment	
	assessment	 dietetic and surgical follow-up 	
	 dietetic and surgical 	 other disease management 	
	follow-up	 psychological support before and 	
	 other disease 	after surgery	
	management	 information on, or access to 	
	 psychological support 	plastic surgery (such as	
	before and after surgery	apronectomy) where appropriate	
	 information on, or 	 access to suitable equipment, 	
	access to plastic	such as scales, theatre beds,	
	surgery where	hoists.	
	appropriate.		

- 1.2.7.4 Bariatric surgery is recommended as a first-line option for people with a BMI > 50 kg/m², and in whom surgical intervention is considered appropriate. (Adult)
- 1.2.7.5 Drug therapy is not recommended as first-line treatment for people who are considered suitable for surgery. However, if the waiting time for surgery is considered to be excessive, orlistat or sibutramine can be used in the interim to maintain, or reduce weight before admission for surgery. (Adult)
- 1.2.7.6 Severely obese individuals (and their families as appropriate) who are considering surgery to aid weight reduction should discuss in detail with the clinician responsible for their treatment (that is, the

hospital specialist and/or bariatric surgeon) the potential benefits and longer-term implications of surgery, as well as the associated risks, including complications and perioperative mortality.

1.2.7.7	All young people should	Surgery should be undertaken only
	have had a comprehensive	after comprehensive, pre-operative
	psychological, education,	assessment of any psychological or
	family, and social	clinical factors that may affect
	assessment before	adherence to postoperative care
	undergoing bariatric	requirements (diet etc). (Adult)
	surgery. (Child)	

- 1.2.7.8 A full medical evaluation, including genetic screening or assessment should be made before surgery to exclude rare, treatable causes of the obesity. (Child)
- 1.2.7.9 The choice of surgical intervention¹⁸ should be made jointly by the individual and the clinician after considering:
 - the degree of obesity
 - comorbidities
 - the best available evidence
 - the facilities and equipment available
 - the experience of the surgeon who would perform the operation.
- 1.2.7.10 Revisional surgery (where the original operation has failed) should only be undertaken by surgeons with extensive experience in specialist centres because of the high rate of complications and increased mortality. **(Adult)**
- 1.2.7.11 Arrangements for prospective audit should be made, so that the outcomes and complications of different procedures, the impact on quality of life, nutritional status, and the effect on comorbidities can be monitored both in the short and long term.

¹⁸ Procedures reviewed were Roux-en-Y gastric bypass (open or laparoscopic), laparoscopic adjustable gastric banding, duodenal switch BPD, and the use of staged surgery for people BMI > 50.

1.2.7.12 The surgeon in the multidisciplinary team should have:

- undertaken a relevant supervised training programme
- specialist experience in bariatric surgery
- and be willing to submit data for a national clinical audit scheme.

2 Notes on the scope of the guidance

All NICE guidelines are developed in accordance with a scope document that defines what the guidance will and will not cover. The scope of this guidance was established, after a period of consultation, at the start of the guidance development process; it is available from:

www.nice.org.uk/page.aspx?o=63364.

The scope of the work was to include:

(1) The clinical management of overweight and obesity in adults and children aged 2 years and older.

- (i) The identification and assessment of overweight and obesity in primary and secondary care.
- (ii) The management of overweight and obesity in primary and secondary care.
- (iii) Morbid obesity in sufficient detail to inform and identify key aspects of care.

(2) The prevention of overweight and obesity in adults and children aged 2 years or older who are currently a healthy weight. The role of the primary prevention approaches intended to support adults and children in maintaining a healthy weight. These approaches will be aimed mainly outside the clinical setting and will include advice on:

- (i) Raising awareness
- (ii) Identifying children and adults who may benefit the most from participating in prevention programmes

- (iii) Maintaining energy balance
- (iv) Developing local strategies, with a focus on multifaceted interventions:
 - Community services and the wider environment
 - Workplaces
 - Schools
 - Children aged 2-5
 - Black and minority ethnic groups and vulnerable groups.

During the development of the guidance it was noted that the management of overweight and obesity in non clinical settings had been inadvertently omitted from the scope; this topic was also considered.

3 Implementation in the NHS

3.1 NHS

The Healthcare Commission will assess the performance of NHS organisations in meeting core and developmental standards set by the Department of Health in 'Standards for better health' issued in July 2004.

Implementation of clinical and public health guidance forms part of the developmental standard D2. Core standard C5 says that national agreed guidance should be taken into account when NHS organisations are planning and delivering care.

This guidance is supported by the following implementation tools available on our website www.nice.org.uk/CG0XX [NICE to amend list as needed at time of publication]

- A slide set key messages for local discussion.
- Costing tools:
 - a national costing report, which estimates the overall resource impact associated with implementation

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- a local costing template; a simple spreadsheet that can be used to estimate the local cost of implementation.
- Implementation advice practical suggestions on how to address potential barriers to implementation.
- Audit criteria to monitor local practice.

Other audiences and settings

Public health guidance for other audiences and settings is based on the status and ability of audiences and settings to implement recommendations:

- Public bodies including local authorities; government, government agencies and arms length bodies; schools, colleges and child care in early years settings; forces, prisons and police service. Organisations are strongly encouraged to implement recommendations.
- Private and voluntary organisations large employers (more than 250 employees) are strongly encouraged to implement recommendations.
- Private and voluntary organisations small and medium employers (less than 50 and less than 250 employees, respectively); the recommendations should be considered best practice.
- Consumers including parents, the media and others providing advice for population groups; the recommendations should be considered as best practice.

The recommendations in this guidance can be delivered through local strategic partnerships, public service agreements and other strategies, such as the health, social care and well being strategies in Wales. They can also be included in local area agreements.

Effective interventions often require multidisciplinary teams and the support of a broad range of organisations. Local authorities and their partners are strongly encouraged to monitor and evaluate the impact of all local action (including action that is not directly related to health).

It is also important to consult locally on the best mode of delivery, settings and key partnerships and ensure that interventions are client centred. Training may be needed to ensure that health professionals and other staff involved have the skills to tackle the prevention of obesity.

Organisations should also refer to existing guidance, such as that published by the Office of the Deputy Prime Minister (ODPM) and the Health Development Agency.

NICE will develop tools to help organisations implement our guidance on obesity. These will be available from our website when the guidance is published.

During the consultation further information on implementation is included in the full version of the guidance.

4 Research recommendations

The Guidance Development Group has made the following recommendations for research, on the basis of its review of the evidence. The Group regards these recommendations as the most important research areas to improve NICE guidance and the prevention and management of obesity in the future. The Guidance Development Group's full set of research recommendations is detailed in the full guidance (see section 5).

4.1 Research

4.1.1 What are the most effect interventions to prevent or manage obesity in children and adults in the UK?

Why this is important

Published interventions to prevent and manage obesity are often of short duration with little or no post intervention follow up, are conducted in non-UK settings and are poorly reported. There is an urgent need for well designed, randomised controlled trials (or other appropriately designed methodologies, in line, for example, with the TREND Statement) with a minimum of 12 months

post intervention follow up time. Studies should use validated methods to measure outcomes to assess body fatness (body mass index), dietary intake and physical activity. Clarity is required on the benefits of measures additional to BMI (such as waist circumference in children). Research reports and papers should be explicit on details of the intervention, provider, setting and follow up times. The development of a 'CONSORT'-type statement for public health research is strongly recommended. For research on the management of obesity in clinical settings there is a particular need to address the effects of different levels of intensity of non-pharmacological interventions (diet and physical activity) and different levels of intensity of follow up. Further research is also required to determine the effectiveness of pharmacological and surgical interventions in those with specific comorbidities (for example, type 2 diabetes, cardiovascular disease).

4.1.2 How does the effectiveness of interventions to prevent or manage obesity vary by population group, setting and source of delivery?

Why this is important

There is a paucity of UK evidence on the effectiveness of multicomponent interventions among key at risk groups (for example, young children and families; black and minority ethnic groups), vulnerable groups (for example,. looked-after children and young people, lower income groups and people with disabilities) and people at vulnerable lifestages (for example, women during and after pregnancy and people stopping smoking). There is a pressing need for controlled trials of tailored interventions for these groups with comparison to the general population. Interventions should be undertaken in 'real world', every day, clinical and non-clinical settings and should aim to provide clarity on how the setting, mode and source of delivery influence effectiveness. For research on the management of those in clinical settings there is a priority for studies evaluating multicomponent interventions in primary care. Future research should (1) assess the feasibility of using interventions in the UK previously shown to be effective in other developed countries, (2) collect sufficient data to assess how the effectiveness of the intervention varies by

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age, gender, ethnic, religious and /or social group, (3) consider the value of corroborative evidence, such as associated qualitative studies considering acceptability to participants, (4) consider the potential negative effects of an intervention as well as the intended positive effects (particularly for studies of children and young people).

4.1.3 What is the cost effectiveness of interventions to prevent or manage obesity in children and adults in the UK?

Why this is important

There is very limited evidence base on the cost effectiveness of interventions, not only in the costing dimension but also in the dimension of outcome measures that are amenable to health economic evaluations. This is an issue of considerable importance since total costs of an intervention can be high, either through a large population or significant costs per patient. The evidence currently available on the effectiveness of prevention strategies often reports crude aggregated outcome measures, such as average weight loss without reporting response rates. The majority of studies in this area also have relatively short follow up so the impact of prevention strategies on long-term weight outcomes is equivocal. Clinical papers would become considerably more useful in this area through administering quality of life questionnaires throughout the intervention and follow-up period to determine how valuable any clinical improvement is to the individual. This would allow greater comparison between types of intervention and minimise the number and implausibility of assumptions made in the construction of cost-effectiveness analyses. It would be valuable to run cost-effectiveness studies in parallel to clinical trials. Thus, patient level data can be collected, allowing greater investigation and analysis.

4.1.4 What are the fundamental elements of interventions that increase effectiveness and sustainability? In particular, what are the core training requirements for healthcare professionals (and other staff working in community settings)?

Why this is important

Substantial corroborative evidence suggests that there are considerable barriers to the implementation of interventions, from organisational structures to personal views, both of healthcare professionals and patients. It has also been identified that the enthusiasm and motivational skills of the healthcare professional providing support and advice are likely to be key elements of effective interventions and that interventions may be more effective when tailored to participant characteristics. Further high quality research is required to identify (1) the fundamental elements of an intervention that increase effectiveness and sustainability and (2) the key elements of training that can increase the effectiveness of interventions.

4.2 Evaluation and monitoring

4.2.1 Population trends in overweight and obesity

The continued, frequent, collection of detailed data on the prevalence of obesity at a national and regional level is strongly recommended.

4.2.2 National and local action

All local action (and national initiatives which are implemented locally), including action in childcare settings, schools and workplaces, should be monitored and evaluated with the potential impact on health in mind. A post audit of health impact assessment should also be undertaken. The evaluation of projects should be an integral component of funding. It is recommended that the evaluation component of local initiatives is carried out in partnership with local centres that have expertise in evaluation methodology such as health authorities, public health observatories and/or universities.

4.2.3 Clinical practice

There is a need to set up a registry on the use of orlistat and sibutramine in young people and the prescribing of these drugs should only be undertaken if the prescriber is willing to submit data to this registry. There is also a need to undertake arrangements for prospective audits of bariatric surgery.

5 Other versions of this guidance

The National Institute for Health and Clinical Excellence commissioned the National Collaborating Centre for Primary Care (NCC-PC) to develop the clinical aspects of this guidance. The Centre for Public Health Excellence (CPHE) at NICE developed the public health aspects of this guidance, supported by its collaborating centres at Cardiff University, the University of Teesside and the University of York. CPHE and NCC-PC worked closely to ensure that the public health and clinical aspects of the guidance were consistent and complementary. Two Guidance Development Groups (GDG) were established, with a joint Chair, which reviewed the evidence and developed the recommendations. The members of the GDG are listed in Appendix A. Information about the independent Guideline Review Panel is given in Appendix B.

The booklet 'The guideline development process: an overview for stakeholders, the public and the NHS' has more information about the Institute's guideline development process. It is available from www.nice.org.uk/guidelinesprocess and copies can also be ordered by telephoning 0870 1555 455 (quote reference N0472).

5.1 Full guidance

The full guidance, 'Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children', is published by NICE and the National Collaborating Centre for Primary Care. It summarises the evidence that the recommendations are based on. The full guidance is available from [website details to be added], the NICE website (www.nice.org.uk/CGXXXfullguidance) and the website of the National Library

for Health (www.nlh.nhs.uk). [Note: these details will apply to the published full guidance.]

5.2 Other forms of the guidance

Other forms of the guidance, including quick reference guide(s) for health and other professionals, and information for the public, will also be available [Note: these details will apply when the guidance is published.]

6 Related NICE guidance

- Orlistat for the treatment of obesity in adults. NICE technology appraisal no. 22 (2001). Available from www.nice.org.uk/TA21
- The clinical effectiveness and cost effectiveness of sibutramine for obesity. NICE technology appraisal no. 31 (2001). Available from www.nice.org.uk/TA31
- The clinical effectiveness and cost effectiveness of surgery for people with morbid obesity. NICE technology appraisal no. 46 (2002). Available from www.nice.org.uk/TA46

NICE is in the process of developing the following guidance (details available from www.nice.org.uk).

 An assessment of four commonly used methods to increase physical activity: brief interventions in primary care, pedometers, exercise referral schemes and community based exercise programmes for walking and cycling. NICE public health intervention guidance. (Publication expected March 2006.)

7 Review date

The process of reviewing the evidence is expected to begin 4 years after the date of issue of this guidance. Reviewing may begin before this if significant evidence that affects the guidance recommendations is identified. The updated guidance will be available within 2 years of the start of the review

process. However, please note that this process is currently under review and may change following consultation.

Appendix A: The Guideline Development Group

Chair

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Public health

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Professor Philip James

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Ms Colette Marshall Commissioning Manager, National Institute for Health and Clinical Excellence

Mrs Nancy Turnbull Chief Executive, NCC-PC

Appendix B: The Guideline Review Panel

The Guideline Review Panel is an independent panel that oversees the development of the guidance and takes responsibility for monitoring its quality. The Panel includes experts on guideline methodology, healthcare professionals and people with experience of the issues affecting patients and carers. The members of the Guideline Review Panel were as follows.

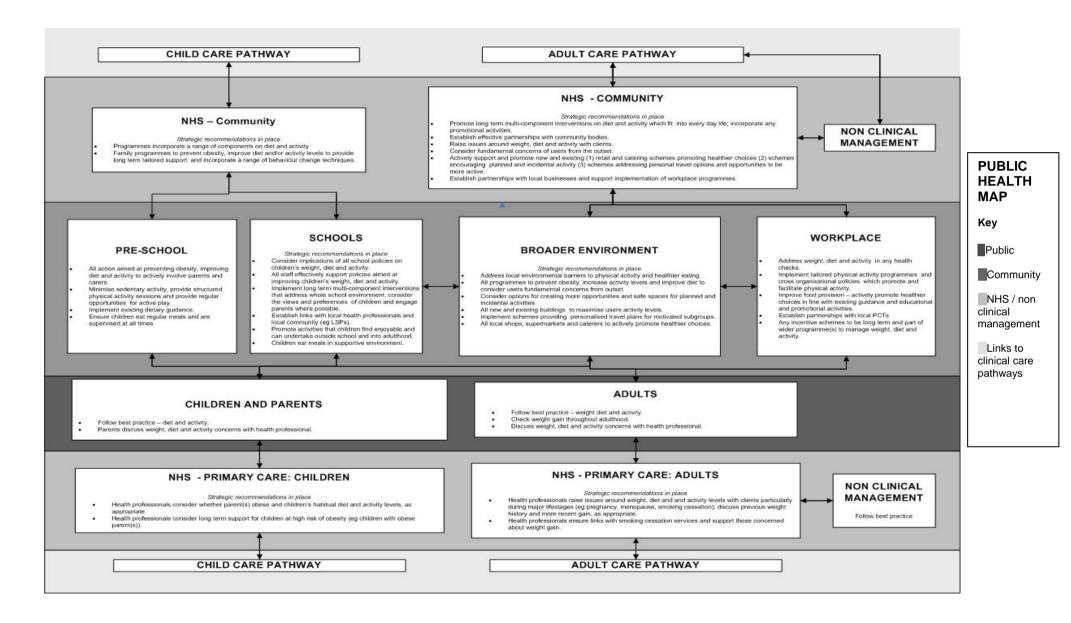
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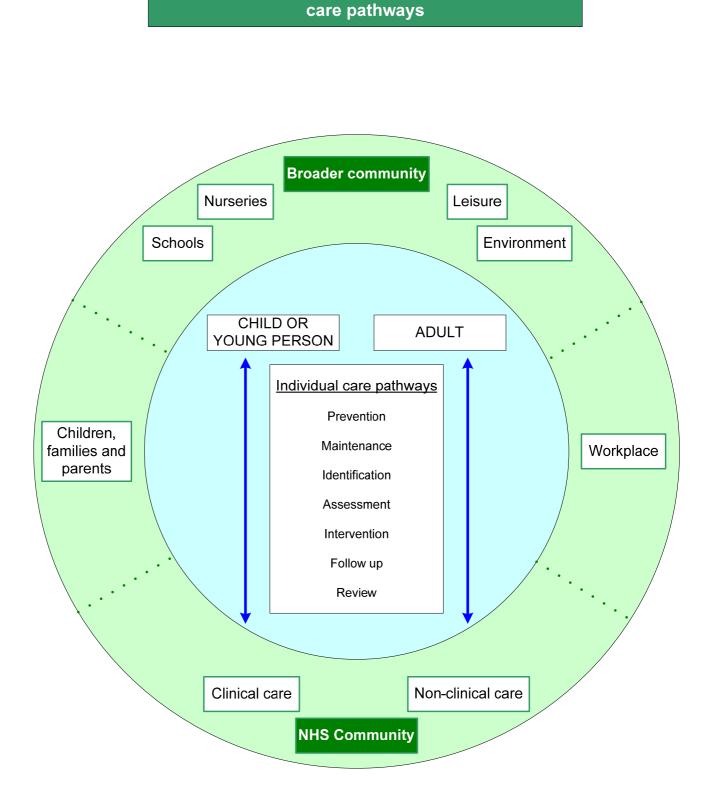
Appendix C: The algorithms

The following algorithms are included:

- Public health map
- Links between public health and clinical management
- Clinical care pathway for children
- Clinical care pathway for adults

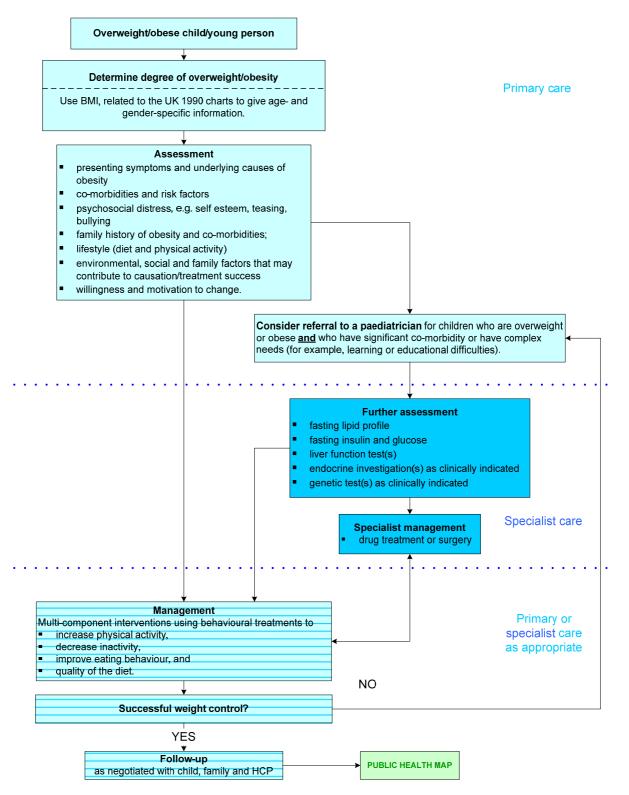
Public health map (see the next page)



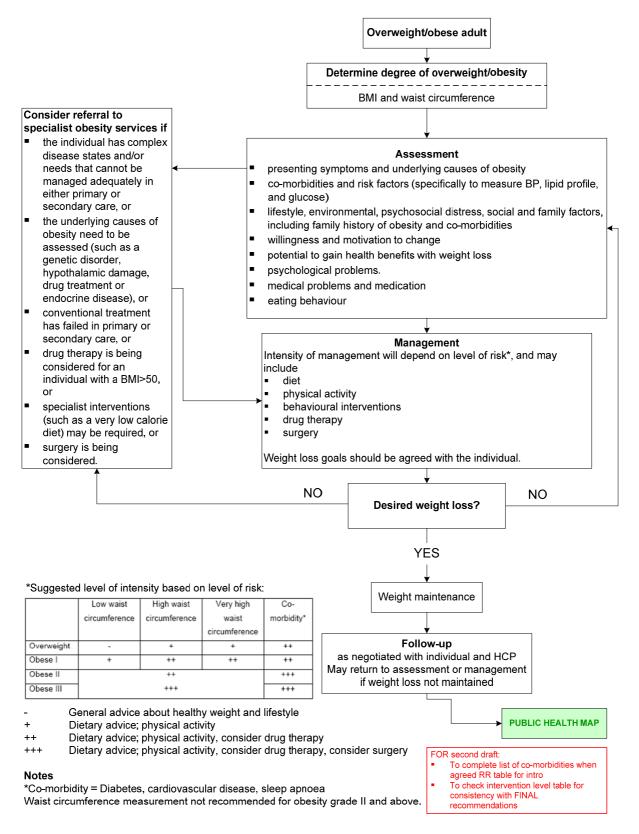


Links between the public health map and individual

Clinical care pathway for children



Clinical care pathway for adults



Appendix D: Existing guidance on eating and physical activity

The recommendations in this NICE guidance should be viewed in the context of the 2004 public health White Paper, 'Choosing Health', and the existing guidance summarised below.

Diet

Standard UK population recommendations on healthy eating are based on the recommendations of the Committee on the Medical Aspects of Food Policy (COMA) and subsequently the Scientific Advisory Committee on Nutrition (SACN) (summarised in Table 1).

Nutrient/food	Recommendation
Total fat	reduce to no more than 35% energy
Saturated fat	reduce to no more than 11% energy
Total carbohydrate	increase to more than 50% energy
Sugars (added)	no more than 10% energy
Dietary fibre	increase non-starch polysaccharides to 18g per day
Salt	reduce to no more than 6 g salt per day*
Fruit and vegetables	increase to at least five portions of a variety of fruit and vegetables per day

Table 1 Standard population dietary recommendations

*The maximum amount of salt recommended for children is less than that for adults – see www.eatwell.gov.uk for specific recommendations.

These recommendations do not apply to children under 2 years of age. Between 2 and 5 years of age, a flexible approach to the timing and extent of dietary change should be taken. By the age of 5 years children should be consuming a diet consistent with the recommendations for adults.

This advice is reflected in the National Food Guide, 'The Balance of Good Health' (below).



Reproduced by kind permission of the Food Standards Agency.

The FSA summarises the advice for consumers as follows.

- Base your meals on starchy foods.
- Eat lots of fruit and vegetables.
- Eat more fish including a portion of oily fish each week.
- Cut down on saturated fat and sugar.
- Try to eat less salt no more than 6 g a day for adults*.
- Get active and try to be a healthy weight.
- Drink plenty of water.
- Don't skip breakfast.
- And remember to enjoy your food!

*The maximum amount of salt recommended for children is less than that for adults – see www.eatwell.gov.uk for specific recommendations.

The Department of Health advises that men should not drink more than 3 to 4 units of alcohol per day, and women should drink no more than 2 to 3 units of alcohol per day. These daily benchmarks apply whether individuals drink every day, once or twice a week, or occasionally. A unit is half a pint of standard strength (3 to 5% ABV) beer, lager or cider, or a pub measure of spirit. A glass of wine is about 2 units and 'alcopops' are about 1.5 units.

Physical activity

The Chief Medical Officer's report At least five times a week (2004) examined the current validity of existing guidance on physical activity, and found no reason to alter it.

Adults

For cardiovascular health, all adults are advised to take 30 minutes moderate activity on at least 5 days of the week. Activities that improve strength, coordination and balance are particularly beneficial for older people.

To prevent obesity in the absence of an energy intake reduction, 45–60 minutes moderate activity on at least 5 days of the week may be needed.

To prevent regaining weight following weight loss, 60–90 minutes moderate activity on at least 5 days of the week may be needed.

Children and young people

For **general health benefits** from a physically active lifestyle, children and young people should take at least 60 minutes of at least moderate intensity physical activity each day, although this may be inadequate to prevent obesity. Between 60 and 70% of children meet these recommendations yet the prevalence of obesity continues to rise.

Types of activity

The definition of moderate intensity physical activity varies according to the fitness level of the individual. Usually, the person's breathing rate and heart rate increase, and feel warmer. Moderate intensity activities can include brisk walking, stair climbing or cycling, gardening, structured exercise or sport.

All forms of movement can contribute to the maintenance of a healthy weight or weight loss. This includes activities that can easily fit into a person's daily routine such as walking or cycling to work or school, walking a dog, housework and gardening.

The daily physical activity recommendations may be achieved through several short bouts of moderate intensity activity of 10 minutes or more, or by doing the activity in one session.

The health benefits of physical activity outweigh the risks such as injury or accidents), particularly at the levels of activity required to promote and maintain health.

Sources of further information on existing guidance and trends

- www.foodstandards.gov.uk
- www.eatwell.gov.uk
- www.dh.gov.uk
- www.5aday.nhs.uk
- www.nhsdirect.nhs.uk
- www.sportengland.org

Sources of further information for schools

Food

- Whole school approach (general): www.wiredforhealth.gov.uk
- Whole school approach (food): www.foodinschools.org
- www.food.gov.uk/multimedia/pdfs/foodpolicygovernor.pdf
- Catering in schools (DfES): www.dfes.gov.uk/schoollunches
- Catering in schools (Food standards Agency)
- www.food.gov.uk/multimedia/pdfs/bookmarknut.pdf
- www.food.gov.uk/multimedia/pdfs/fruittuckwales.pdf

 www.food.gov.uk/interactivetools/educational/bashstreetdiet/further_inf o#h_1

Sport

- www.qca.org.uk/pess/pdf/pe_update_autumn_05.pdf
- www.standards.dfes.gov.uk/specialistschools/what_are/sports
- www.youthsporttrust.org
- www.sportengland.org/county_sports_partnerships

Travel plans

- www.saferoutestoschools.org.uk
- www.dft.gov.uk/stellent/groups/dft_susttravel/documents/page/dft_sustt ravel_504055.hcsp

Sources of further information for local authorities and

partners

Details of references for this section can be found in the full guidance.

Supportive information from ODPM

- Creating Healthier Communities a resource pack for local partnerships
- Planning and Policy Statement 1– Delivering sustainable Development

Supportive information from the Health Development Agency

- Evaluation of community level interventions for health improvement (Hills 2004).
- Planning across the LSP: Case studies of integrating community strategies and health improvement. (Hamer L and Easton N 2002).
- Working Partnership: Book 1 Introduction.
- Working Partnership: Book 2 Short assessment

- Working Partnership: Book 3 In-depth assessment
- Working Partnership: Looseleaf worksheets (Markwell S, Watson J, Speller V, Platt S, Younger T, 2003)
- Partnership working: A consumer guide to resources (Markwell S, 2003).
- Health needs assessment: A practical guide. (Cavanagh S, Chadwick K, 2005).
- Evaluation resources for community food projects. (McGlone P, Dallison J, Caraher M, 2005).
- Clarifying approaches to: health needs assessment, health impact assessment, integrated impact assessment, health equity audit, and race equality impact assessment (HDA 2005)

Supportive information from the Local Government Association

• Comprehensive Performance Assessments

Supportive information from the Department for Transport

- Accessibility Planning Guidance
- Walking and Cycling

Sources of further information for workplaces

- www.nhsplus.nhs.uk.
- Investors in People and Investors in Health see www.investorsinhealth.org
- the Corporate Health Standard for Wales
- DWP, DH and HSE strategy Health, Work and Well-being Caring for Our Future (2005)