National Institute for Health and Clinical Excellence

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Obesity

guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children

Sibutramine (Reductil): marketing authorisation suspended

On 21 January 2010, the MHRA announced the suspension of the marketing authorisation for the obesity drug sibutramine (Reductil). This follows a review by the European Medicines Agency which found that the cardiovascular risks of sibutramine outweigh its benefits. Emerging evidence suggests that there is an increased risk of non-fatal heart attacks and strokes with this medicine.

The MHRA advises that:

- Prescribers should not issue any new prescriptions for sibutramine (Reductil) and should review the treatment of patients taking the drug.
- Pharmacists should stop dispensing Reductil and should advise patients to make an appointment to see their doctor at the next convenient time.
- People who are currently taking Reductil should make a routine appointment with their doctor to discuss alternative measures to lose weight, including use of diet and exercise regimens. Patients may stop treatment before their appointment if they wish.

NICE clinical guideline 43 recommended sibutramine for the treatment of obesity in certain circumstances. These recommendations have now been withdrawn and healthcare professionals should follow the MHRA advice.

NICE clinical guideline 43

Developed by the National Collaborating Centre for Primary Care and the Centre for Public Health Excellence at NICE

NICE clinical guideline 43
Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children

Ordering information
You can download the following documents from www.nice.org.uk/CG043
- The NICE guideline (this document) – all the recommendations.
- Two quick reference guides – summaries of the recommendations for professionals:
  – quick reference guide 1 for local authorities, schools and early years providers, workplaces and the public
  – quick reference guide 2 for the NHS.
- Two booklets of information for the public – 'Understanding NICE guidance':
  – 'Preventing obesity and staying a healthy weight'
  – 'Treatment for people who are overweight or obese'.
- The full guideline – all the recommendations, details of how they were developed, and summaries of the evidence they were based on.

For printed copies of the quick reference guides or 'Understanding NICE guidance', phone the NHS Response Line on 0870 1555 455 and quote:
- N1152 (quick reference guide 1)
- N1153 ('Preventing obesity and staying a healthy weight')
- N1154 (quick reference guide 2).
- N1155 ('Treatment for people who are overweight or obese').

This guidance is written in the following context

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer. Public health professionals, local government officials and elected members, school governors, head teachers, those with responsibility for early years services, and employers in the public, private and voluntary sectors should take this guidance into account when carrying out their professional, voluntary or managerial duties.

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Introduction

This is the first national guidance on the prevention, identification, assessment 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 diseases associated with it
- increase the effectiveness of interventions to prevent overweight and obesity
- improve the care provided to adults and children with obesity, particularly in primary care.

The recommendations are based on the best available evidence of effectiveness, including cost effectiveness. They include 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 supports the implementation of the 'Choosing health' White Paper in England, 'Designed for life' in Wales, the revised GP contract and the existing national service frameworks (NSFs). It also supports the joint Department of Health, Department for Education and Skills and Department for Culture, Media and Sport target to halt the rise in obesity among children under 11 by 2010, and similar initiatives in Wales.

Rationale for integrated clinical and public health guidance

Public health and clinical audiences share the same need for evidence-based, cost-effective solutions to the challenges in their day-to-day practice, as well as to inform policies and strategies to improve health. Complementary clinical and public health guidance are essential to address the hazy divisions between prevention and management of obesity.

The 2004 Wanless report 'Securing good health for the whole population' stressed that a substantial change will be needed to produce the reductions in preventable diseases such as obesity that will lead to the greatest reductions in future healthcare costs. In addition to recommending a more effective

delivery framework for health services providers, the report proposed an enhanced role for schools, local authorities and other public sector agencies, employers, and private and voluntary sector providers in developing opportunities for people to secure better health.

It is unlikely that the problem of obesity can be addressed through primary care management alone. More than half the adult population are overweight or obese and a large proportion will need help with weight management. Although there is no simple solution, the most effective strategies for prevention and management share similar approaches. The clinical management of obesity cannot be viewed in isolation from the environment in which people live.

Working with people to prevent and manage overweight and obesity: the issues

Preventing and managing overweight and obesity are complex problems, with no easy answers. This guidance offers practical recommendations based on the evidence. But staff working directly with the public also need to be aware of the many factors that could be affecting a person's ability to stay at a healthy weight or succeed in losing weight.

- People choose whether or not to change their lifestyle or agree to treatment. Assessing their readiness to make changes affects decisions on when or how to offer any intervention.
- Barriers to lifestyle change should be explored. Possible barriers include:
  - lack of knowledge about buying and cooking food, and how diet and exercise affect health
  - the cost and availability of healthy foods and opportunities for exercise
  - safety concerns, for example about cycling
  - lack of time
  - personal tastes
  - the views of family and community members
  - low levels of fitness, or disabilities
  - low self-esteem and lack of assertiveness.
- Advice needs to be tailored for different groups. This is particularly important for people from black and minority ethnic groups, vulnerable groups (such as those on low incomes) and people at life stages with increased risk for weight gain (such as during and after pregnancy, at the menopause or when stopping smoking).

Working with children and young adults

- Treating children for overweight or obesity may stigmatise them and put them at risk of bullying, which in turn can aggravate problem eating. Confidentiality and building self-esteem are particularly important if help is offered at school.

- Interventions to help children eat a healthy diet and be physically active should develop a positive body image and build self-esteem.

Person-centred care: principles for health professionals

When working with people to prevent or manage overweight and obesity, health professionals should follow the usual principles of person-centred care.

Advice, treatment and care should take into account people's needs and preferences. People should have the opportunity to make informed decisions about their care and treatment, in partnership with their health professionals.

Good communication between health professionals and patients is essential. It should be supported by evidence-based written information tailored to the patient's needs. Advice, treatment and care, and the information patients are given about it, should be non-discriminatory and culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English.

For older children who are overweight or obese, a balance needs to be found between the importance of involving parents and the right of the child to be cared for independently.

If a person does not have the capacity to make decisions, health professionals should follow the Department of Health guidance – 'Reference guide to consent for examination or treatment' (2001) (available from www.dh.gov.uk). From April 2007 healthcare professionals will need to follow a code of practice accompanying the Mental Capacity Act (summary available from www.dca.gov.uk/menincap/bill-summary.htm).

Key priorities for implementation

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

Public health

NHS

- Managers and health professionals in all primary care settings should ensure that preventing and managing obesity is a priority, at both strategic and delivery levels. Dedicated resources should be allocated for action.

Local authorities and partners

- Local authorities should work with local partners, such as industry and voluntary organisations, to create and manage more safe spaces for incidental and planned physical activity, addressing as a priority any concerns about safety, crime and inclusion, by:
  - providing facilities and schemes such as cycling and walking routes, cycle parking, area maps and safe play areas
  - making streets cleaner and safer, through measures such as traffic calming, congestion charging, pedestrian crossings, cycle routes, lighting and walking schemes
  - ensuring buildings and spaces are designed to encourage people to be more physically active (for example, through positioning and signing of stairs, entrances and walkways)
  - considering in particular people who require tailored information and support, especially inactive, vulnerable groups.

Early years settings

- Nurseries and other childcare facilities should:
  - minimise sedentary activities during play time, and provide regular opportunities for enjoyable active play and structured physical activity sessions
  - implement Department for Education and Skills, Food Standards Agency and Caroline Walker Trust[1] guidance on food procurement and healthy catering.

Schools

- Head teachers and chairs of governors, in collaboration with parents and pupils, should assess the whole school environment and ensure that the ethos of all school policies helps children and young people to maintain a healthy weight, eat a healthy diet and be physically active, in line with existing standards and guidance. This includes policies relating to building layout and recreational spaces, catering (including vending machines) and the food and drink children bring into school, the taught curriculum (including PE), school travel plans and provision for cycling, and policies relating to the National Healthy Schools Programme and extended schools.

Workplaces

- Workplaces should provide opportunities for staff to eat a healthy diet and be physically active, through:
  - active and continuous promotion of healthy choices in restaurants, hospitality, vending machines and shops for staff and clients, in line with existing Food Standards Agency guidance
  - working practices and policies, such as active travel policies for staff and visitors
  - a supportive physical environment, such as improvements to stairwells and providing showers and secure cycle parking
  - recreational opportunities, such as supporting out-of-hours social activities, lunchtime walks and use of local leisure facilities.

[1]see www.cwt.org.uk

Self-help, commercial and community settings

- Primary care organisations and local authorities should recommend to patients, or consider endorsing, self-help, commercial and community weight management programmes only if they follow best practice (see recommendation 1.1.7.1 for details of best practice standards).

Clinical care

Children and adults

- Multicomponent interventions are the treatment of choice. Weight management programmes should include behaviour change strategies to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet and reduce energy intake.

Children

- Interventions for childhood overweight and obesity should address lifestyle within the family and in social settings.

- Body mass index (BMI) (adjusted for age and gender) is recommended as a practical estimate of overweight in children and young people, but needs to be interpreted with caution because it is not a direct measure of adiposity.

- Referral to an appropriate specialist should be considered for children who are overweight or obese and have significant comorbidity or complex needs (for example, learning or educational difficulties).

Adults

- The decision to start drug treatment, and the choice of drug, should be made after discussing with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements and their potential impact on the patient's motivation. When drug treatment is prescribed, arrangements should be made for appropriate health professionals to offer information, support and counselling on additional diet, physical activity and behavioural strategies. Information about patient support programmes should also be provided.

- Bariatric surgery is recommended as a treatment option for adults with obesity if all of the following criteria are fulfilled:
  - they have a BMI of 40 kg/m^2 or more, or between 35 kg/m^2 and 40 kg/m^2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight
  - all appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months
  - the person has been receiving or will receive intensive management in a specialist obesity service
  - the person is generally fit for anaesthesia and surgery
  - the person commits to the need for long-term follow-up.

- Bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m^2 in whom surgical intervention is considered appropriate.

1 Guidance

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance (see section 5 for details).

In the recommendations, 'children' refers to anyone younger than 18 years. 'Young people' is used when referring to teenagers at the older end of this age group.

Staff who advise people on diet, weight and activity – both inside and outside the NHS – need appropriate training, experience and enthusiasm to motivate people to change. Some will need general training (for example, in health promotion), while those who provide interventions for obesity (such as dietary treatment and physical training) will need more specialised training. In the recommendations, the term 'specific' is used if the training will be in addition to staff's basic training. The term 'relevant' is used for training that could be part of basic professional training or in addition to it.

1.1 Public health recommendations

The public health recommendations are divided according to their key audiences and the settings they apply to:

- the public
- the NHS
- local authorities and partners in the community
- early years settings
- schools
- workplaces
- self-help, commercial and community programmes.

Some of the recommendations are at a strategic level (primarily for those involved in planning and management of service provision and policies), and others are at delivery level (for individual staff, teams and team managers).

Section 3 on pages 59 and 60 has information about the status of NICE guidance in different settings, and links to tools to help with implementing the recommendations and meeting training needs. In many cases, implementation will involve organisations working in partnership.

1.1.1 Recommendations for the public

Although body weight and weight gain are influenced by many factors, including people's genetic makeup and the environment in which they live, the individual decisions people make also affect whether they maintain a healthy weight.

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

People tend to gain weight gradually, and may not notice this happening. Many people accept weight gain with age as inevitable but the main cause is gradual changes in their everyday lives, such as a tendency to being less active, or small changes to diet. People also often gain weight during particular stages of their life, such as during and after pregnancy, the menopause or while stopping smoking.

Small, sustained improvements to daily habits help people maintain a healthy weight and have wider health benefits – such as reducing the risk of coronary heart disease, type 2 diabetes and some cancers. But making changes can be difficult and is often hindered by conflicting advice on what changes to make.

Recommendations for all

1.1.1.1 Everyone should aim to maintain or achieve a healthy weight, to improve their health and reduce the risk of diseases associated with overweight and obesity, such as coronary heart disease, type 2 diabetes, osteoarthritis and some cancers.

1.1.1.2 People should follow the strategies listed in box 1, which may make it easier to maintain a healthy weight by balancing ‘calories in’ (from food and drink) and ‘calories out’ (from being physically active). Sources of advice and information are listed in appendix D.

Box 1 Strategies to help people achieve and maintain a healthy weight

Diet

- Base meals on starchy foods such as potatoes, bread, rice and pasta, choosing wholegrain where possible.
- Eat plenty of fibre-rich foods – such as oats, beans, peas, lentils, grains, seeds, fruit and vegetables, as well as wholegrain bread, and brown rice and pasta.
- Eat at least five portions of a variety of fruit and vegetables each day, in place of foods higher in fat and calories.
- Eat a low-fat diet and avoid increasing your fat and/or calorie intake.
- Eat as little as possible of:
  - fried foods
  - drinks and confectionery high in added sugars
  - other food and drinks high in fat and sugar, such as some take-away and fast foods.
- Eat breakfast.
- Watch the portion size of meals and snacks, and how often you are eating.
- For adults, minimise the calories you take in from alcohol.

Activity

- Make enjoyable activities – such as walking, cycling, swimming, aerobics and gardening – part of everyday life.
- Minimise sedentary activities, such as sitting for long periods watching television, at a computer or playing video games.
- Build activity into the working day – for example, take the stairs instead of the lift, take a walk at lunchtime.

1.1.1.3 All adults should be encouraged to periodically check their weight, waist measurement or a simple alternative, such as the fit of their clothes.

1.1.1.4 People who have any queries or concerns about their – or their family's – diet, activity levels or weight should discuss these with a health professional such as a nurse, GP, pharmacist, health visitor or school nurse. They could also consult reliable sources of information, such as those listed in appendix D.

Recommendation for adults who wish to lose weight

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

1.1.1.5 Weight loss programmes (including commercial or self-help groups, slimming books or websites) are recommended only if they:

- are based on a balanced healthy diet
- encourage regular physical activity
- expect people to lose no more than 0.5–1 kg (1–2 lb) a week.

Programmes that do not meet these criteria are unlikely to help people maintain a healthy weight in the long term.

People with certain medical conditions – such as type 2 diabetes, heart failure or uncontrolled hypertension or angina – should check with their general practice or hospital specialist before starting a weight loss programme.

Recommendations for parents and carers

1.1.1.6 In addition to the recommendations in box 1, parents and carers should consider following the advice in box 2 to help children establish healthy behaviours and maintain or work towards a healthy weight. These strategies may have other benefits – for example, monitoring the amount of time children spend watching television may help reduce their exposure to inappropriate programmes or advertisements.

Box 2 Helping children and young people maintain or work towards a healthy weight

Diet

- Children and young adults should eat regular meals, including breakfast, in a pleasant, sociable environment without distractions (such as watching television).
- Parents and carers should eat with children – with all family members eating the same foods.

Activity

- Encourage active play – for example, dancing and skipping.
- Try to be more active as a family – for example, walking and cycling to school and shops, going to the park or swimming.
- Gradually reduce sedentary activities – such as watching television or playing video games – and consider active alternatives such as dance, football or walking.
- Encourage children to participate in sport or other active recreation, and make the most of opportunities for exercise at school.

1.1.2 The NHS

The following recommendations are made specifically for health professionals and managers in the NHS, but may also be relevant to health professionals in other organisations. Recommendations in other sections may also be relevant for NHS health professionals working with local authorities and other organisations.

These recommendations are for:

- senior managers, GPs, commissioners of care and directors of public health
- staff in primary and secondary care, particularly those providing interventions, including public health practitioners, nurses, behavioural psychologists, physiotherapists, GPs, pharmacists, trained counsellors, registered dietitians, public health nutritionists and specifically trained exercise specialists.

With specific training, staff such as pharmacy assistants or support staff in general practices may also be able to give advice and support.

Implementing these recommendations will contribute to the English target to halt the annual rise in obesity in children younger than 11 years by 2010, and similar initiatives in Wales. Recommendations can be delivered through local strategic partnerships and other local agreements and partnerships.

Section 3 on pages 59 and 60 has links to tools to help with implementing the recommendations and meeting training needs. In many cases, implementation will involve organisations working together in partnership.

Primary care staff should engage with target communities, consult on how and where to deliver interventions and form key partnerships and ensure that interventions are person centred.

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, people in

vulnerable groups (such as those on low incomes) and people at life stages with increased risk for weight gain (such as during and after pregnancy, menopause or smoking cessation). Many of the recommendations below also highlight the need to provide ongoing support – this can be in person, or by phone, mail or internet as appropriate.

Overarching recommendation

1.1.2.1 Managers and health professionals in all primary care settings should ensure that preventing and managing obesity is a priority at both strategic and delivery levels. Dedicated resources should be allocated for action.

Strategy: for senior managers and budget holders

1.1.2.2 In their role as employers, NHS organisations should set an example in developing public health policies to prevent and manage obesity by following existing guidance and (in England) the local obesity strategy. In particular:

- on-site catering should promote healthy food and drink choices (for example by signs, posters, pricing and positioning of products)
- there should be policies, facilities and information that promote physical activity, for example, through travel plans, by providing showers and secure cycle parking and by using signposting and improved décor to encourage stair use.

1.1.2.3 All primary care settings should ensure that systems are in place to implement the local obesity strategy. This should enable health professionals with specific training, including public health practitioners working singly and as part of multidisciplinary teams, to provide interventions to prevent and manage obesity.

1.1.2.4 All primary care settings should:

- address the training needs of staff involved in preventing and managing obesity
- allocate adequate time and space for staff to take action
- enhance opportunities for health professionals to engage with a range of organisations and to develop multidisciplinary teams.

1.1.2.5 Local health agencies should identify appropriate health 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 diet (and reduce energy intake)
- the best practice approaches in delivering such interventions, including tailoring support to meet people's needs over the long term
- the use of motivational and counselling techniques.

Training will need to address barriers to health professionals providing support and advice, particularly concerns about the effectiveness of interventions, people's receptiveness and ability to change and the impact of advice on relationships with patients.

Delivery: for all health professionals

1.1.2.6 Interventions to increase physical activity should focus on activities that fit easily into people's everyday life (such as walking), should be tailored to people's individual preferences and circumstances and should aim to improve people's belief in their ability to change (for example, by verbal persuasion, modelling exercise behaviour and discussing positive effects). Ongoing support (including appropriate written materials) should be given in person or by phone, mail or internet.

1.1.2.7 Interventions to improve diet (and reduce energy intake) should be multicomponent (for example, including dietary modification, targeted advice, family involvement and goal setting), be tailored to the individual and provide ongoing support.

1.1.2.8 Interventions may include promotional, awareness-raising activities, but these should be part of a long-term, multicomponent intervention rather than one-off activities (and should be accompanied by targeted follow-up with different population groups).

1.1.2.9 Health professionals should discuss weight, diet and activity with people at times when weight gain is more likely, such as during and after pregnancy, the menopause and while stopping smoking.

1.1.2.10 All actions aimed at preventing excess weight gain and improving diet (including reducing energy intake) and activity levels in children and young people should actively involve parents and carers.

Delivery: for health professionals in primary care

1.1.2.11 All interventions to support smoking cessation should:

- ensure people are given information on services that provide advice on prevention and management of obesity if appropriate
- give people who are concerned about their weight general advice on long-term weight management, in particular encouraging increased physical activity.

Delivery: for health professionals in broader community settings

The recommendations in this section are for health professionals working in broader community settings, including healthy living centres and Sure Start programmes.

1.1.2.12 All community programmes to prevent obesity, increase activity levels and improve diet (including reducing energy intake) should address the concerns of local people from the outset. Concerns might include the availability of services and the cost of changing

behaviour, the expectation that healthier foods do not taste as good, dangers associated with walking and cycling and confusion over mixed messages in the media about weight, diet and activity.

1.1.2.13 Health professionals should work with shops, supermarkets, restaurants, cafes and voluntary community services to promote healthy eating choices that are consistent with existing good practice guidance and to provide supporting information.

1.1.2.14 Health professionals should support and promote community schemes and facilities that improve access to physical activity, such as walking or cycling routes, combined with tailored information, based on an audit of local needs.

1.1.2.15 Health professionals should support and promote behavioural change programmes along with tailored advice to help people who are motivated to change become more active, for example by walking or cycling instead of driving or taking the bus.

1.1.2.16 Families of children and young people identified as being at high risk of obesity – such as children with at least one obese parent – should be offered ongoing support from an appropriately trained health professional. Individual as well as family-based interventions should be considered, depending on the age and maturity of the child.

Delivery: for health professionals working with preschool, childcare and family settings

1.1.2.17 Any programme to prevent obesity in preschool, childcare or family settings 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 and shopping for food and drink
- physical activity – interactive demonstrations, videos and group discussions on practical issues such as ideas for activities, opportunities for active play, safety and local facilities.

1.1.2.18 Family programmes to prevent obesity, improve diet (and reduce energy intake) and/or increase physical activity levels should provide ongoing, tailored support and incorporate a range of behaviour change techniques (see section 1.2.4). Programmes should have a clear aim to improve weight management.

Delivery: for health professionals working with workplaces

1.1.2.19 Health professionals such as occupational health staff and public health practitioners should establish partnerships with local businesses and support the implementation of workplace programmes to prevent and manage obesity.

1.1.3 Local authorities and partners in the 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 to an affordable, healthy diet. Planning decisions may therefore have an impact on the health of the local population. Fundamental concerns about safety, transport links and services need to be addressed. Effective interventions often require multidisciplinary teams and the support of a broad range of organisations.

These recommendations apply to:

- senior managers and budget holders in local authorities and community partnerships, who manage, plan and commission services such as transport, sports and leisure and open spaces (not just those with an explicit public health role)
- staff providing specific community-based interventions.

Implementation of these recommendations is likely to contribute to local area agreements and other local agreements and targets. The need to work in partnership should be reflected in the integrated regional strategies and reviewed regularly.

Recommendations that refer to the planning of buildings, and stair use in particular, should be implemented in the context of existing building regulations and policies, particularly in relation to access for disabled people.

Section 3 on pages 59 and 60 has links to tools to help with implementing the recommendations, meeting training needs, evaluating the impact of action and working in partnership with other organisations.

Overarching recommendation

1.1.3.1 As part of their roles in regulation, enforcement and promoting wellbeing, local authorities, primary care trusts (PCTs) or local health boards and local strategic partnerships should ensure that preventing and managing obesity is a priority for action – at both strategic and delivery levels – through community interventions, policies and objectives. Dedicated resources should be allocated for action.

Strategy: for senior managers and budget holders

1.1.3.2 Local authorities should set an example in developing policies to prevent obesity in their role as employers, by following existing guidance and (in England) the local obesity strategy.

- On-site catering should promote healthy food and drink choices (for example by signs, posters, pricing and positioning of products).
- Physical activity should be promoted, for example through travel plans, by providing showers and secure cycle parking and using signposting and improved décor to encourage stair use.

1.1.3.3 Local authorities (including planning, transport and leisure services) should engage with the local community, to identify environmental barriers to physical activity and healthy eating. This should involve:

- an audit, with the full range of partners including PCTs or local health boards, residents, businesses and institutions
- assessing (ideally by doing a health impact assessment) the affect of their policies on the ability of their communities to be physically active and eat a healthy diet; the needs of subgroups should be considered because barriers may vary by, for example, age, gender, social status, ethnicity, religion and whether an individual has a disability.

Barriers identified in this way should be addressed.

1.1.3.4 Local authorities should work with local partners, such as industry and voluntary organisations, to create and manage more safe spaces for incidental and planned physical activity, addressing as a priority any concerns about safety, crime and inclusion, by:

- providing facilities such as cycling and walking routes, cycle parking, area maps and safe play areas

- making streets cleaner and safer, through measures such as traffic calming, congestion charging, pedestrian crossings, cycle routes, lighting and walking schemes
- ensuring buildings and spaces are designed to encourage people to be more physically active (for example, through positioning and signing of stairs, entrances and walkways)
- considering in particular people who require tailored information and support, especially inactive, vulnerable groups.

1.1.3.5 Local authorities should facilitate links between health professionals and other organisations to ensure that local public policies improve access to healthy foods and opportunities for physical activity.

Delivery: specific interventions

1.1.3.6 Local authorities and transport authorities should provide tailored advice such as personalised travel plans to increase active travel among people who are motivated to change.

1.1.3.7 Local authorities, through local strategic partnerships, should encourage all local shops, supermarkets and caterers to promote healthy food and drink, for example by signs, posters, pricing and positioning of products, in line with existing guidance and (in England) with the local obesity strategy.

1.1.3.8 All community programmes to prevent obesity, increase activity levels and improve diet (and reduce energy intake) should address the concerns of local people. Concerns might include the availability of services and the cost of changing behaviour, the expectation that healthier foods do not taste as good, dangers associated with walking and cycling and confusion over mixed messages in the media about weight, diet and activity.

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

1.1.4 Early years settings

The preschool years (ages 2–5) are a key time for shaping lifelong attitudes and behaviours, and childcare providers can create opportunities for children to be active and develop healthy eating habits, and can act as positive role models.

These recommendations apply to:

- directors of children's services
- children and young people's strategic partnerships
- staff, including senior management, in childcare and other early years settings
- children's trusts, children's centres, Healthy Start and Sure Start teams
- trainers working with childcare staff, including home-based childminders and nannies.

Implementing these recommendations will contribute to meeting the target to halt the annual rise in obesity in children younger than 11 years by 2010 and to implementing the England and Wales National Service Frameworks for children, young people and maternity services (the Children's NSFs for England and Wales), and 'Every child matters' and similar initiatives in Wales.

Section 3 on pages 59 and 60 has links to tools to help with implementing the recommendations and meeting training needs.

For all settings

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, improving diet (and reducing energy intake) and increasing activity levels in children should involve parents and carers.

1.1.4.3 Nurseries and other childcare facilities should:

- minimise sedentary activities during play time, and provide regular opportunities for enjoyable active play and structured physical activity sessions
- implement Department for Education and Skills, Food Standards Agency and Caroline Walker Trust[2] guidance on food procurement and healthy catering.

1.1.4.4 Staff should ensure that children eat regular, healthy meals in a pleasant, sociable environment free from other distractions (such as television). Children should be supervised at mealtimes and, if possible, staff should eat with children.

1.1.5 Schools

During their school years, people often develop life-long patterns of behaviour that affect their ability to keep a healthy weight. Schools play an important role in this by providing opportunities for children to be active and develop healthy eating habits, and by providing role models. Improving children's diet and activity levels may also have wider benefits: regular physical activity is associated with higher academic achievement, better health in childhood and later life, higher motivation at school and reduced anxiety and depression.

There is no evidence that school-based interventions to prevent obesity, improve diet and increase activity levels foster eating disorders or extreme dieting or exercise behaviour.

[2] See www.cwt.org.uk

These recommendations apply to:

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

Implementing these recommendations will contribute to meeting the target to halt the annual rise in obesity in children younger than 11 years by 2010 and implementing the Children's NSFs for England and Wales, the National Healthy Schools Programme (and the Welsh Network of Healthy Schools Schemes), and 'Every child matters' and similar initiatives in Wales.

Section 3 on pages 59 and 60 has links to tools to help with implementing the recommendations and meeting training needs.

Recommendations that refer to the planning of buildings, and stair use in particular, should be implemented in the context of existing building regulations and policies, particularly in relation to access for disabled people.

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. A whole-school approach should be used to develop life-long healthy eating and physical activity practices.

Strategy: for head teachers and chairs of governors

1.1.5.2 Head teachers and chairs of governors, in collaboration with parents and pupils, should assess the whole school environment and ensure that the ethos of all school policies helps children and young people to maintain a healthy weight, eat a healthy diet and be physically active, in line with existing standards and guidance. This includes policies relating to building layout and recreational spaces, catering (including vending machines) and the food and

drink children bring into school[3], the taught curriculum (including PE), school travel plans and provision for cycling, and policies relating to the National Healthy Schools Programme and extended schools.

1.1.5.3 Head teachers and chairs of governors should ensure that teaching, support and catering staff receive training on the importance of healthy-school policies and how to support their implementation.

1.1.5.4 Schools should establish links with relevant organisations and professionals, including health professionals and those involved in local strategies and partnerships to promote sports for children and young people.

1.1.5.5 Interventions should be sustained, multicomponent and address the whole school, including after-school clubs and other activities. Short-term interventions and one-off events are insufficient on their own and should be part of a long-term integrated programme.

Delivery: for teachers and other professionals

1.1.5.6 Staff delivering physical education, sport and physical activity should promote activities that children and young people find enjoyable and can take part in outside school, through into adulthood. Children's confidence and understanding of why they need to continue physical activity throughout life (physical literacy) should be developed as early as possible.

1.1.5.7 Children and young people should eat meals (including packed lunches) in school in a pleasant, sociable environment. Younger children should be supervised at mealtimes and, if possible, staff should eat with children.

1.1.5.8 Staff planning interventions should consider the views of children and young people, any differences in preferences between boys

[3] See www.schoolfoodtrust.org.uk

and girls, and potential barriers (such as cost or the expectation that healthier foods do not taste as good).

1.1.5.9 Where possible, parents should be involved in school-based interventions through, for example, special events, newsletters and information about lunch menus and after-school activities.

1.1.6 Workplaces

The workplace may have an impact on a person's ability to maintain a healthy weight both directly, by providing healthy eating choices and opportunities for physical activity (such as the option to use stairs instead of lifts, staff gym, cycle parking and changing and shower facilities), and indirectly, through the overall culture of the organisation (for example, through policies and incentive schemes). Taking action may result in significant benefit for employers as well as employees.

These recommendations apply to:

- senior managers
- health and safety managers
- occupational health staff
- unions and staff representatives
- employers' organisations and chambers of commerce
- health professionals working with businesses.

The recommendations are 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 may only be fully achieved by large organisations with on-site occupational health staff, such as the NHS, public bodies and larger private organisations.

The recommendations are likely to build on existing initiatives – such as catering awards, Investors in People and Investors in Health, and the Corporate Health Standard in Wales.

Section 3 on pages 59 and 60 has links to tools to help with implementing the recommendations and meeting training needs.

Recommendations that refer to the planning of buildings, and stair use in particular, should be implemented in the context of existing building regulations and policies, particularly in relation to access for disabled people.

Overarching recommendation

1.1.6.1 All workplaces, particularly large organisations such as the NHS and local authorities, should address the prevention and management of obesity, because of the considerable impact on the health of the workforce and associated costs to industry. Workplaces are encouraged to collaborate with local strategic partnerships and to ensure that action is in line with the local obesity strategy (in England).

For all workplaces

1.1.6.2 Workplaces should provide opportunities for staff to eat a healthy diet and be more physically active, through:

- active and continuous promotion of healthy choices in restaurants, hospitality, vending machines and shops for staff and clients, in line with existing Food Standards Agency guidance
- working practices and policies, such as active travel policies for staff and visitors
- a supportive physical environment, such as improvements to stairwells and providing showers and secure cycle parking
- recreational opportunities, such as supporting out-of-hours social activities, lunchtime walks and use of local leisure facilities.

1.1.6.3 Incentive schemes (such as policies on travel expenses, the price of food and drinks sold in the workplace and contributions to gym membership) that are used in a workplace should be sustained and part of a wider programme to support staff in managing weight, improving diet and increasing activity levels.

For NHS, public organisations and large commercial organisations

1.1.6.4 Workplaces providing health checks for staff should ensure that they address weight, diet and activity, and provide ongoing support.

1.1.6.5 Action to improve food and drink provision in the workplace, including restaurants, hospitality and vending machines, should be supported by tailored educational and promotional programmes, such as a behavioural intervention or environmental changes (for example, food labelling or changes to availability).

For this to be effective, 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 are likely to be needed.

1.1.7 Self-help, commercial and community programmes

There are many organisations that aim to help people lose weight, and these often work with local authorities and PCTs or local health boards. But their programmes are of variable quality, so it is important to ensure they meet best-practice standards.

Strategy: for health agencies and local authorities

1.1.7.1 Primary care organisations and local authorities should recommend to patients, or consider endorsing, self-help, commercial and community weight management programmes only if they follow best practice[4] by:

- helping people assess their weight and decide on a realistic healthy target weight (people should usually aim to lose 5–10% of their original weight)
- aiming for a maximum weekly weight loss of 0.5–1 kg

[4] Based on information from the British Dietetic Association 'Weight Wise' Campaign (www.bdaweightwise.com/support/support_approach.aspx); the advice on target weights is the opinion of the Clinical Management Guidance Development Group.

- focusing on long-term lifestyle changes rather than a short-term, quick-fix approach
- being multicomponent, addressing both diet and activity, and offering a variety of approaches
- using a balanced, healthy-eating approach
- recommending regular physical activity (particularly activities that can be part of daily life, such as brisk walking and gardening) and offering practical, safe advice about being more active
- including some behaviour change techniques, such as keeping a diary and advice on how to cope with ‘lapses’ and ‘high-risk’ situations
- recommending and/or providing ongoing support.

Delivery: for health professionals in primary and secondary care and community settings

1.1.7.2 Health professionals should discuss the range of weight management options with people who want to lose or maintain their weight, or are at risk of weight gain, and help them decide what best suits their circumstances and what they will be able to sustain in the long term.

1.1.7.3 General practices and other primary or secondary care settings recommending commercial, community and/or self-help weight management programmes should continue to monitor patients and provide support and care.

1.1.7.4 Health professionals should check that any commercial, community or self-help weight management programmes they recommend to patients meet best-practice standards (see recommendation 1.1.7.1).

1.2 Clinical recommendations

1.2.1 Generic principles of care

Adults and children

1.2.1.1 Regular, non-discriminatory long-term follow-up by a trained professional should be offered. Continuity of care in the multidisciplinary team should be ensured through good record keeping.

Adults

1.2.1.2 Any specialist setting should be equipped for treating people who are severely obese with, for example, special seating and adequate weighing and monitoring equipment. Hospitals should have access to specialist equipment – such as larger scanners and beds – needed when providing general care for people who are severely obese.

1.2.1.3 The choice of any intervention for weight management must be made through negotiation between the person and their health professional.

1.2.1.4 The components of the planned weight-management programme should be tailored to the person's preferences, initial fitness, health status and lifestyle.

Children

1.2.1.5 The care of children and young people should be coordinated around their individual and family needs and should comply with national core standards as defined in the Children's NSFs for England and Wales.

1.2.1.6 The overall aim should be to create a supportive environment that helps overweight or obese children and their families make lifestyle changes.

1.2.1.7 Decisions on the approach to management of a child's overweight or obesity (including assessment and agreement of goals and actions) should be made in partnership with the child and family, and be tailored to the needs and preferences of the child and the family.

1.2.1.8 Interventions for childhood overweight and obesity should address lifestyle within the family and in social settings.

1.2.1.9 Parents (or carers) should be encouraged to take the main responsibility for lifestyle changes for overweight or obese children, especially if they are younger than 12 years. However, the age and maturity of the child and the preferences of the child and the parents should be taken into account.

1.2.2 Identification and classification of overweight and obesity

1.2.2.1 Healthcare professionals should use their clinical judgement to decide when to measure a person's height and weight. Opportunities include registration with a general practice, consultation for related conditions (such as type 2 diabetes and cardiovascular disease) and other routine health checks.

Measures of overweight or obesity

Adults

1.2.2.2 Body mass index (BMI) should be used as a measure of overweight in adults, but needs to be interpreted with caution because it is not a direct measure of adiposity.

1.2.2.3 Waist circumference may be used, in addition to BMI, in people with a BMI less than 35 kg/m^2.

Children

1.2.2.4 BMI (adjusted for age and gender) is recommended as a practical estimate of overweight in children and young people, but needs to be interpreted with caution because it is not a direct measure of adiposity.

1.2.2.5 Waist circumference is not recommended as a routine measure but may be used to give additional information on the risk of developing other long-term health problems.

Adults and children

1.2.2.6 Bioimpedance is not recommended as a substitute for BMI as a measure of general adiposity.

Classification of overweight or obesity

Adults

1.2.2.7 The degree of overweight or obesity in adults should be defined as follows.

Classification	**BMI (kg/m^2)**
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 BMI may be a less accurate measure of adiposity in adults who are highly muscular, so BMI should be interpreted with caution in this group. Some other population groups, such as Asians and older people, have comorbidity risk factors that would be of concern at different BMIs (lower for Asian adults and higher for older people). Healthcare professionals should use clinical judgement when considering risk factors in these groups, even in people not classified as overweight or obese using the classification in recommendation 1.2.2.7.

1.2.2.9 Assessment of the health risks associated with overweight and obesity in adults should be based on BMI and waist circumference as follows.

BMI classification	Waist circumference		
	Low	**High**	**Very high**
Overweight	No increased risk	Increased risk	High risk
Obesity I	Increased risk	High risk	Very high risk
For men, waist circumference of less than 94 cm is low, 94–102 cm is high and more than102 cm is very high. For women, waist circumference of less than 80 cm is low, 80–88 cm is high and more than 88 cm is very high.			

1.2.2.10 Adults 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.

1.2.2.11 The level of intervention to discuss with the patient initially should be based as follows.

BMI classification	Waist circumference			Comorbidities present
	Low	**High**	**Very high**	
Overweight				
Obesity I				
Obesity II				
Obesity III				

	General advice on healthy weight and lifestyle
	Diet and physical activity
	Diet and physical activity; consider drugs
	Diet and physical activity; consider drugs; consider surgery

Note that the level of intervention should be higher for patients with comorbidities (see section 1.2.3 for details), regardless of their waist circumference. The approach should be adjusted as needed, depending on the patient's clinical need and potential to benefit from losing weight.

Children

1.2.2.12 BMI measurement in children and young people should be related to the UK 1990 BMI charts[5] to give age- and gender-specific information.

1.2.2.13 Tailored clinical intervention should be considered for children with a BMI at or above the 91st centile, depending on the needs of the individual child and family.

1.2.2.14 Assessment of comorbidity should be considered for children with a BMI at or above the 98th centile.

1.2.3 Assessment

This section should be read in conjunction with the NICE guideline on eating disorders (*NICE clinical guideline* no. 9; available from www.nice.org.uk/CG009), particularly if a person who is not overweight asks for advice on losing weight.

Adults and children

1.2.3.1 After making an initial assessment (see recommendations 1.2.3.7 and 1.2.3.9), healthcare professionals should use clinical judgement to investigate comorbidities and other factors in an appropriate level of detail, depending on the person, the timing of the assessment, the degree of overweight or obesity and the results of previous assessments.

1.2.3.2 Any comorbidities should be managed when they are identified, rather than waiting until the person has lost weight.

1.2.3.3 People who are not yet ready to change should be offered the chance to return for further consultations when they are ready to discuss their weight again and willing or able to make lifestyle

[5] The Guideline Development Group considered that there was a lack of evidence to support specific cut-offs in children. However, the recommended pragmatic indicators for action are the 91st and 98th centiles (overweight and obese, respectively).

changes. They should also be given information on the benefits of losing weight, healthy eating and increased physical activity.

1.2.3.4 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 person's view of 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 person wants to lose weight
- be aware that people from certain ethnic and socioeconomic backgrounds may be at greater risk of obesity, and may have different beliefs about what is a healthy weight and different attitudes towards weight management
- find out what the patient has already tried and how successful this has been, and what they learned from the experience
- assess readiness to adopt changes
- assess confidence in making changes.

1.2.3.5 Patients and their families and/or carers should be given information on the reasons for tests, how the tests are performed and their results and meaning.

1.2.3.6 If necessary, another consultation should be offered to fully explore the options for treatment or discuss test results.

Adults

1.2.3.7 After appropriate measurements have been taken and the issues of weight raised with the person, an assessment should be done, covering:

- presenting symptoms and underlying causes of overweight and obesity
- eating behaviour
- comorbidities (such as type 2 diabetes, hypertension, cardiovascular disease, osteoarthritis, dyslipidaemia and sleep apnoea) and risk factors, using the following tests – lipid profile, blood glucose (both preferably fasting) and blood pressure measurement
- lifestyle – diet and physical activity
- psychosocial distress and lifestyle, environmental, social and family factors – including family history of overweight and obesity and comorbidities
- willingness and motivation to change
- potential of weight loss to improve health
- psychological problems
- medical problems and medication.

1.2.3.8 Referral to specialist care should be considered if:

- the underlying causes of overweight and obesity need to be assessed
- the person has complex disease states and/or needs that cannot be managed adequately in either primary or secondary care
- conventional treatment has failed in primary or secondary care
- drug therapy is being considered for a person with a BMI more than 50 kg/m^2
- specialist interventions (such as a very-low-calorie diet for extended periods) may be needed, or
- surgery is being considered.

Children

1.2.3.9 After measurements have been taken and the issue of weight raised with the child and family, an assessment should be done, covering:

- presenting symptoms and underlying causes of overweight and obesity
- willingness and motivation to change
- comorbidities (such as hypertension, hyperinsulinaemia, dyslipidaemia, type 2 diabetes, psychosocial dysfunction and exacerbation of conditions such as asthma) and risk factors
- psychosocial distress, such as low self-esteem, teasing and bullying
- family history of overweight and obesity and comorbidities
- lifestyle – diet and physical activity
- environmental, social and family factors that may contribute to overweight and obesity and the success of treatment
- growth and pubertal status.

1.2.3.10 Referral to an appropriate specialist should be considered for children who are overweight or obese and have significant comorbidity or complex needs (for example, learning or educational difficulties).

1.2.3.11 In secondary care, the assessment of overweight and/or obese children and young people should include assessment of associated comorbidities and possible aetiology, and investigations such as:

- blood pressure measurement
- fasting lipid profile
- fasting insulin and glucose levels
- liver function
- endocrine function.

These tests need to be performed, and results interpreted, in the context of the degree of overweight and obesity, the child's age, history of comorbidities, possible genetic causes and any family history of metabolic disease related to overweight and obesity.

1.2.3.12 Arrangements for transitional care should be made for young people who are moving from paediatric to adult services.

1.2.4 Lifestyle interventions

The recommendations in this section deal with lifestyle changes for people actively trying to lose weight; recommendations about lifestyle changes and self-management strategies for people wishing to maintain a healthy weight can be found in section 1.1.1.

General

Adults and children

1.2.4.1 Multicomponent interventions are the treatment of choice. Weight management programmes should include behaviour change strategies (see recommendations 1.2.4.15–17) to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet and reduce energy intake.

1.2.4.2 When choosing treatments, the following factors should be considered:

- the person's individual preference and social circumstance and the experience and outcome of previous treatments (including whether there were any barriers)
- their level of risk, based on BMI and waist circumference (see recommendations 1.2.2.9 and 1.2.2.11)
- any comorbidities.

1.2.4.3 The results of the discussion should be documented, and a copy of the agreed goals and actions should be kept by the person and the healthcare professional or put in the notes as appropriate. Healthcare professionals should tailor support to meet the person's needs over the long term.

1.2.4.4 The level of support offered should be determined by the person's needs, and be responsive to changes over time.

1.2.4.5 Any healthcare professional involved in the delivery of interventions for weight management should have relevant competencies and have undergone specific training.

1.2.4.6 Information should be provided in formats and languages that are suited to the person. When talking to patients and carers, healthcare professionals should use everyday, jargon-free language and explain any technical terms. Consideration should be given to the person's:

- age and stage of life
- gender
- cultural needs and sensitivities
- ethnicity
- social and economic circumstances
- physical and mental disabilities.

1.2.4.7 To encourage the patient through the difficult process of changing established behaviour, healthcare professionals should praise successes – however small – at every opportunity.

1.2.4.8 People who are overweight or obese, and their families and/or carers, should be given relevant information on:

- overweight and obesity in general, including related health risks
- realistic targets for weight loss; for adults the targets are usually
  - maximum weekly weight loss of 0.5–1 kg[6]
  - aim to lose 5–10% of original weight
- the distinction between losing weight and maintaining weight loss, and the importance of developing skills for both; the change from losing weight to maintenance typically happens after 6–9 months of treatment
- realistic targets for outcomes other than weight loss, such as increased physical activity, healthy eating
- diagnosis and treatment options
- healthy eating in general (see appendix D)
- medication and side effects
- surgical treatments
- self care
- voluntary organisations and support groups and how to contact them.

There should be adequate time in the consultation to provide information and answer questions.

1.2.4.9 If a person (or their family or carers) does not want to do anything at this time, healthcare professionals should explain that advice and support will be available in the future whenever they need it. Contact details should be provided, so that the person can make contact when they are ready.

[6] Based on the British Dietetic Association 'Weight Wise' Campaign. Greater rates of weight loss may be appropriate in some cases, but this should be undertaken only under expert supervision.

Adults

1.2.4.10 The person's partner or spouse should be encouraged to support any weight management programme.

1.2.4.11 The level of intensity of the intervention should be based on the level of risk and the potential to gain health benefits (see recommendation 1.2.2.11).

Children

1.2.4.12 Single-strategy approaches to managing weight are not recommended for children or young people.

1.2.4.13 The aim of weight management programmes for children and young people may be either weight maintenance or weight loss, depending on their age and stage of growth.

1.2.4.14 Parents of overweight or obese children and young people should be encouraged to lose weight if they are also overweight or obese.

Behavioural interventions

Adults and children

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

Adults

1.2.4.16 Behavioural interventions for adults should include the following strategies, as appropriate for the person:

- self monitoring of behaviour and progress
- stimulus control
- goal setting
- slowing rate of eating
- ensuring social support
- problem solving
- assertiveness
- cognitive restructuring (modifying thoughts)

- reinforcement of changes
- relapse prevention
- strategies for dealing with weight regain.

Children

1.2.4.17 Behavioural interventions for children should include the following strategies, as appropriate for the child:

- stimulus control
- self monitoring
- goal setting
- rewards for reaching goals
- problem solving.

Although not strictly defined as behavioural techniques, giving praise and encouraging parents to role-model desired behaviours are also recommended.

Physical activity

Adults

1.2.4.18 Adults should be encouraged to increase their physical activity even if they do not lose weight as a result, because of the other health benefits physical activity can bring, such as reduced risk of type 2 diabetes and cardiovascular disease. Adults should be encouraged to do at least 30 minutes of at least moderate-intensity physical activity on 5 or more days a week. The activity can be in one session or several lasting 10 minutes or more.

1.2.4.19 To prevent obesity, most people should be advised they may need to do 45–60 minutes of moderate-intensity activity a day, particularly if they do not reduce their energy intake. People who have been obese and have lost weight should be advised they may need to do 60–90 minutes of activity a day to avoid regaining weight.

1.2.4.20 Adults should be encouraged to build up to the recommended levels for weight maintenance, using a managed approach with agreed goals.

Recommended types of physical activity include:

- activities that can be incorporated into everyday life, such as brisk walking, gardening or cycling
- supervised exercise programmes
- other activities, such as swimming, aiming to walk a certain number of steps each day, or stair climbing.

Any activity should take into account the person's current physical fitness and ability.

People should also be encouraged to reduce the amount of time they spend inactive, such as watching television or using a computer.

Children

1.2.4.21 Children and young people should be encouraged to increase their physical activity even if they do not lose weight as a result, because of the other health benefits exercise can bring, such as reduced risk of type 2 diabetes and cardiovascular disease. Children should be encouraged to do at least 60 minutes of at least moderate activity each day. The activity can be in one session or several lasting 10 minutes or more.

1.2.4.22 Children who are already overweight may need to do more than 60 minutes' activity.

1.2.4.23 Children should be encouraged to reduce sedentary behaviours, such as sitting watching television, using a computer or playing video games.

1.2.4.24 Children should be given the opportunity and support to do more exercise in their daily lives (such as walking, cycling, using the

stairs and active play). The choice of activity should be made with the child, and be appropriate to their ability and confidence.

1.2.4.25 Children should be given the opportunity and support to do more regular, structured physical activity, such as football, swimming or dancing. The choice of activity should be made with the child, and be appropriate to their ability and confidence.

Dietary advice

Adults and children

1.2.4.26 Dietary changes should be individualised, tailored to food preferences and allow for flexible approaches to reducing calorie intake.

1.2.4.27 Unduly restrictive and nutritionally unbalanced diets should not be used, because they are ineffective in the long term and can be harmful.

1.2.4.28 People should be encouraged to improve their diet even if they do not lose weight, because there can be other health benefits.

Adults

1.2.4.29 The main requirement of a dietary approach to weight loss is that total energy intake should be less than energy expenditure.

1.2.4.30 Diets that have a 600 kcal/day deficit (that is, they contain 600 kcal less than the person needs to stay the same weight) or that reduce calories by lowering the fat content (low-fat diets), in combination with expert support and intensive follow-up, are recommended for sustainable weight loss.

1.2.4.31 Low-calorie diets (1000–1600 kcal/day) may also be considered, but are less likely to be nutritionally complete.

1.2.4.32 Very-low-calorie diets (less than 1000 kcal/day) may be used for a maximum of 12 weeks continuously, or intermittently with a low-calorie diet (for example for 2–4 days a week), by people who are obese and have reached a plateau in weight loss.

1.2.4.33 Any diet of less than 600 kcal/day should be used only under clinical supervision.

1.2.4.34 In the longer term, people should move towards eating a balanced diet, consistent with other healthy eating advice.

Children

1.2.4.35 A dietary approach alone is not recommended. It is essential that any dietary recommendations are part of a multicomponent intervention.

1.2.4.36 Any dietary changes should be age appropriate and consistent with healthy eating advice.

1.2.4.37 For overweight and obese children and adolescents, total energy intake should be below their energy expenditure. Changes should be sustainable.

1.2.5 Pharmacological interventions

This section contains recommendations that update the NICE technology appraisals on orlistat and sibutramine (*NICE technology appraisal guidance* no. 22 and *NICE technology appraisal guidance* no. 31); see section 6 for details.

General: indications and initiation

Adults and children

1.2.5.1 Pharmacological treatment should be considered only after dietary, exercise and behavioural approaches have been started and evaluated.

The marketing authorisation for sibutramine has been supended. See front cover for details.

Adults

1.2.5.2 Drug treatment should be considered for patients who have not reached their target weight loss or have reached a plateau on dietary, activity and behavioural changes alone.

1.2.5.3 The decision to start drug treatment, and the choice of drug, should be made after discussing with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements, and their potential impact on the patient's motivation. When drug treatment is prescribed, arrangements should be made for appropriate healthcare professionals to offer information, support and counselling on additional diet, physical activity and behavioural strategies. Information on patient support programmes should also be provided.

1.2.5.4 Prescribing should be in accordance with the drug's summary of product characteristics.

Children

1.2.5.5 Drug treatment is not generally recommended for children younger than 12 years.

1.2.5.6 In children younger than 12 years, drug treatment may be used only in exceptional circumstances, if severe life-threatening comorbidities (such as sleep apnoea or raised intracranial pressure) are present. Prescribing should be started and monitored only in specialist paediatric settings[7].

1.2.5.7 In children aged 12 years and older, treatment with orlistat or sibutramine is recommended only if physical comorbidities (such as orthopaedic problems or sleep apnoea) or severe psychological comorbidities are present. Treatment should be started in a

The marketing authorisation for sibutramine has been supended. See front cover for details.

[7] At the time of publication (December 2006), orlistat and sibutramine do not have UK marketing authorisation for use in children. Prescribers should be aware of the special considerations and issues when prescribing for children.

specialist paediatric setting, by multidisciplinary teams with experience of prescribing in this age group.

1.2.5.8 Orlistat or sibutramine should be prescribed for obesity in children only by a multidisciplinary team with expertise in:

- drug monitoring
- psychological support
- behavioural interventions
- interventions to increase physical activity
- interventions to improve diet.

1.2.5.9 Orlistat and sibutramine should be prescribed for young people only if the prescriber is willing to submit data to the proposed national registry on the use of these drugs in young people (see section 4.5.3).

1.2.5.10 After drug treatment has been started in specialist care, it may be continued in primary care if local circumstances and/or licensing allow.

Continued prescribing and withdrawal

Adults and children

1.2.5.11 Pharmacological treatment may be used to maintain weight loss, rather than continue to lose weight.

1.2.5.12 If there is concern about the adequacy of micronutrient intake, a supplement providing the reference nutrient intake for all vitamins and minerals should be considered, particularly for vulnerable groups such as older people (who may be at risk of malnutrition) and young people (who need vitamins and minerals for growth and development).

The marketing authorisation for sibutramine has been supended. See front cover for details.

1.2.5.13 People whose drug treatment is being withdrawn should be offered support to help maintain weight loss, because their self-confidence and belief in their ability to make changes may be low if they did not reach their target weight.

Adults

1.2.5.14 Regular review is recommended to monitor the effect of drug treatment and to reinforce lifestyle advice and adherence.

1.2.5.15 Withdrawal of drug treatment should be considered in people who do not lose enough weight (see recommendations 1.2.5.19 and 1.2.5.24 for details).

1.2.5.16 Rates of weight loss may be slower in people with type 2 diabetes, so less strict goals than those for people without diabetes may be appropriate. These goals should be agreed with the person and reviewed regularly.

Children

1.2.5.17 If orlistat or sibutramine is prescribed for children, a 6–12-month trial is recommended, with regular review to assess effectiveness, adverse effects and adherence.

Orlistat

Adults

1.2.5.18 Orlistat should be prescribed only as part of an overall plan for managing obesity in adults who meet one of the following criteria:

- a BMI of 28.0 kg/m^2 or more with associated risk factors
- a BMI of 30.0 kg/m^2 or more.

1.2.5.19 Therapy should be continued beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment. (See also recommendation 1.2.5.16 for advice on targets for people with type 2 diabetes.)

The marketing authorisation for sibutramine has been supended. See front cover for details.

1.2.5.20 The decision to use drug treatment for longer than 12 months (usually for weight maintenance) should be made after discussing potential benefits and limitations with the patient.

1.2.5.21 The coprescribing of orlistat with other drugs aimed at weight reduction is not recommended.

Sibutramine

Adults

1.2.5.22 Sibutramine should be prescribed only as part of an overall plan for managing obesity in adults who meet one of the following criteria:

- a BMI of 27.0 kg/m^2 or more and other obesity-related risk factors such as type 2 diabetes or dyslipidaemia
- a BMI of 30.0 kg/m^2 or more.

1.2.5.23 Sibutramine should not be prescribed unless there are adequate arrangements for monitoring both weight loss and adverse effects (specifically pulse and blood pressure).

1.2.5.24 Therapy should be continued beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment. (See also recommendation 1.2.5.16 for advice on targets for people with type 2 diabetes.)

1.2.5.25 Treatment is not currently recommended beyond the licensed duration of 12 months.

1.2.5.26 The coprescribing of sibutramine with other drugs aimed at weight reduction is not recommended.

1.2.6 Surgical interventions

This section updates the NICE technology appraisal on surgery for people with morbid obesity (*NICE technology appraisal guidance* no. 46); see section 6 for details.

The marketing authorisation for sibutramine has been supended. See front cover for details.

Adults and children

1.2.6.1 Bariatric surgery is recommended as a treatment option for people with obesity if all of the following criteria are fulfilled:

- they have a BMI of 40 kg/m^2 or more, or between 35 kg/m^2 and 40 kg/m^2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight
- all appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months
- the person has been receiving or will receive intensive management in a specialist obesity service
- the person is generally fit for anaesthesia and surgery
- the person commits to the need for long-term follow-up.

See recommendations 1.2.6.12 and 1.2.6.13 for additional criteria to use when assessing children, and recommendation 1.2.6.7 for additional criteria for adults.

1.2.6.2 Severely obese people who are considering surgery to aid weight reduction (and their families as appropriate) 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.

1.2.6.3 The choice of surgical intervention should be made jointly by the person and the clinician, and taking into account:

- the degree of obesity
- comorbidities
- the best available evidence on effectiveness and long-term effects
- the facilities and equipment available
- the experience of the surgeon who would perform the operation.

1.2.6.4 Regular, specialist postoperative dietetic monitoring should be provided, and should include:

- information on the appropriate diet for the bariatric procedure
- monitoring of the person's micronutrient status
- information on patient support groups
- individualised nutritional supplementation, support and guidance to achieve long-term weight loss and weight maintenance.

1.2.6.5 Arrangements for prospective audit should be made, so that the outcomes and complications of different procedures, the impact on quality of life and nutritional status, and the effect on comorbidities can be monitored in both the short and the long term.

1.2.6.6 The surgeon in the multidisciplinary team should:

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

Adults

1.2.6.7 In addition to the criteria listed in 1.2.6.1, bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m^2 in whom surgical intervention is considered appropriate.

1.2.6.8 In people for whom surgery is recommended as a first-line option, orlistat or sibutramine can be used to maintain or reduce weight before surgery if it is considered that the waiting time for surgery is excessive.

1.2.6.9 Surgery for obesity should be undertaken only by a multidisciplinary team that can provide:

- preoperative assessment, including a risk–benefit analysis that includes preventing complications of obesity, and specialist assessment for eating disorder(s)
- information on the different procedures, including potential weight loss and associated risks
- regular postoperative assessment, including specialist dietetic and surgical follow-up
- management of comorbidities
- psychological support before and after surgery
- information on, or access to, plastic surgery (such as apronectomy) where appropriate
- access to suitable equipment, including scales, theatre tables, Zimmer frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for patients undergoing bariatric surgery, and staff trained to use them.

1.2.6.10 Surgery should be undertaken only after a comprehensive preoperative assessment of any psychological or clinical factors that may affect adherence to postoperative care requirements, such as changes to diet.

1.2.6.11 Revisional surgery (if the original operation has failed) should be undertaken only in specialist centres by surgeons with extensive experience because of the high rate of complications and increased mortality.

The marketing authorisation for sibutramine has been supended. See front cover for details.

Children

1.2.6.12 Surgical intervention is not generally recommended in children or young people.

1.2.6.13 Bariatric surgery may be considered for young people only in exceptional circumstances, and if they have achieved or nearly achieved physiological maturity.

1.2.6.14 Surgery for obesity should be undertaken only by a multidisciplinary team that can provide paediatric expertise in:

- preoperative assessment, including a risk–benefit analysis that includes preventing complications of obesity, and specialist assessment for eating disorder(s)
- providing information on the different procedures, including potential weight loss and associated risks
- regular postoperative assessment, including specialist dietetic and surgical follow-up
- management of comorbidities
- psychological support before and after surgery
- providing information on or access to plastic surgery (such as apronectomy) where appropriate
- access to suitable equipment, including scales, theatre tables, Zimmer frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for patients undergoing bariatric surgery, and staff trained to use them.

1.2.6.15 Surgical care and follow-up should be coordinated around the young person and their family's needs and should comply with national core standards as defined in the Children's NSFs for England and Wales.

1.2.6.16 All young people should have had a comprehensive psychological, education, family and social assessment before undergoing bariatric surgery.

1.2.6.17 A full medical evaluation including genetic screening or assessment should be made before surgery to exclude rare, treatable causes of the obesity.

2 Notes on the scope of the guidance

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover. The scope of this guideline is available from www.nice.org.uk/CG043

The scope specified that the guideline should cover adults and children aged 2 years or older and should include advice on the following aspects of overweight and obesity:

- identification and assessment in primary and secondary care
- clinical management in primary and secondary care
- clinical management of morbid obesity – in sufficient detail to inform and identify key aspects of care
- prevention in people who are currently a healthy weight, mainly outside the clinical setting, including
  - raising awareness
  - identifying children and adults who may benefit the most from participating in prevention programmes
  - maintaining energy balance
  - developing local strategies, with a focus on multifaceted interventions in:
    - the 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 omitted from the scope; this topic was also considered.

How this guideline was developed

NICE commissioned the National Collaborating Centre for Primary Care and the Health Development Agency to develop this guidance. In April 2005, the Health Development Agency merged with NICE, and the work on this guidance was continued by NICE's Centre for Public Health Excellence. The National Collaborating Centre and the Centre for Public Health Excellence established two Guidance Development Groups (see appendix A), which reviewed the evidence and developed the recommendations. An independent Guideline Review Panel oversaw the development of the guidance (see appendix B).

There is more information in the booklet: 'The guideline development process: an overview for stakeholders, the public and the NHS' (second edition, published April 2006), which is available from www.nice.org.uk/guidelinesprocess or by telephoning 0870 1555 455 (quote reference N1113).

3 Implementation

3.1 The NHS

The Healthcare Commission assesses 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 guidelines 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.

NICE has developed tools to help organisations implement this guidance (listed below). These are available on our website (www.nice.org.uk/CG043).

- Slides highlighting key messages for local discussion.
- Costing tools
  - Costing report to estimate the national savings and costs associated with implementation.
  - Costing template to estimate the local costs and savings involved.
- A signposting document on how to put the guidance into practice and national initiatives that support this locally.
- Audit criteria to monitor local practice.

3.2 Other audiences and settings

The guidance also makes recommendations for the following audiences and settings:

- public bodies – including local authorities; government, government agencies and arm's length bodies; schools, colleges and childcare in early years settings; forces, prisons and police service
- private and voluntary organisations
  - large employers (more than 250 employees)
  - small and medium employers (less than 50 and less than 250 employees, respectively)
- the general public including parents, and the media and others providing advice for different population groups.

4 Research recommendations

The Guidance Development Groups have made the following recommendations for research, based on their review of evidence, to improve NICE guidance and patient care in the future.

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

Why this is important

Many studies of interventions to prevent and manage obesity were of short duration, with little or no follow-up, were conducted outside the UK and were poorly reported. There is an urgent need for randomised controlled trials (or other appropriately designed studies, in line, for example, with the 'TREND statement'[8]), with at least 12 months' postintervention follow-up.

Studies should use validated methods to estimate body fatness (BMI), dietary intake and physical activity, and should assess the benefits of measures additional to BMI (such as waist circumference in children). Details of the intervention, provider, setting and follow-up times should be reported. The development of a 'CONSORT'-type[9] statement for public health research is strongly recommended. In research on managing obesity in clinical settings, the effects of different levels of intensity of non-pharmacological interventions and follow-up should be assessed. Further research is also needed on the effectiveness of pharmacological and surgical interventions in people with comorbidities such as type 2 diabetes or cardiovascular disease.

[8] TREND – Transparent Reporting of Evaluations of Nonrandomized Designs; www.trend-statement.org

[9] CONSORT – Consolidated Standards of Reporting Trials; www.consort-statement.org

4.2 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 little UK-based evidence on the effectiveness of multicomponent interventions among key at-risk groups (for example, young children and families and 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 life stages (for example, women during and after pregnancy and people stopping smoking).

Interventions should be undertaken in ‘real world’ everyday clinical and non-clinical settings and should investigate how the setting, mode and source of delivery influence effectiveness. There is a need for research evaluating multicomponent interventions to manage obesity in primary care, because factors such as the types of participant, the training of staff and the availability of resources may affect the results. Future research should:

- assess the feasibility of using in the UK interventions shown to be effective in other developed countries
- collect sufficient data to assess how the effectiveness of the intervention varies by age, gender, ethnic, religious and/or social group
- consider the value of corroborative evidence, such as associated qualitative studies on acceptability to participants
- consider the potential negative effects of an intervention as well as the intended positive effects (particularly for studies of children and young people).

4.3 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 little evidence on the cost effectiveness of interventions, partly because of a lack of outcome measures that are amenable to health economic evaluations. Much of the evidence on the effectiveness of prevention strategies concerns crude measures such as average weight loss rather than response rates. Follow-up is usually short. In clinical research, more information from quality-of-life questionnaires throughout the intervention and follow-up period would help assess how valuable any clinical improvement is to the individual. This would allow greater comparison between types of intervention and improve assumptions made in cost-effectiveness analyses. It would be valuable to run cost-effectiveness studies in parallel with clinical trials, so that patient-level data can be collected.

4.4 What elements make an intervention effective and sustainable, and what training do staff need?

Why this is important

There are considerable barriers to the implementation of interventions, including organisational structures and personal views of both health professionals and patients. The enthusiasm and motivational skills of the health professional providing support and advice are likely to be key, and interventions may be more effective when tailored to the individual's needs. Further research is required to identify:

- what elements make an intervention effective and sustainable
- what staff training is needed.

4.5 Evaluation and monitoring

4.5.1 Population trends in overweight and obesity

Data on the prevalence of overweight and obesity at national and regional levels (with subgroup analysis by age, gender and social status) are published annually by the 'Health survey for England' (HSE) and the 'Welsh health survey'. The continued collection of such data at national and regional levels is strongly recommended. The 'Health survey for England' also provides detailed data on children and on black and minority ethnic groups about every 5 years. To allow full analysis of trends, more frequent collection of data among these and other vulnerable groups at national and local levels is encouraged.

4.5.2 Local and national action

Although considerable action is being undertaken at a local level that could directly or indirectly have an impact on the prevention or management of obesity, little evaluation is being undertaken. This observation is reflected in the 2005 Dr Foster survey[10] of obesity services, which found that only 15% of primary care organisations monitored interventions such as physical activity programmes and exercise on prescription. Many potentially important broader community policies are also not evaluated in terms of their health impact – examples include congestion charging, which is implemented to address traffic rather than health issues, and safer routes to schools.

It is therefore recommended that all local action – including action in childcare settings, schools and workplaces – be monitored and evaluated with the potential impact on health in mind. An audit of health impact should also be undertaken after each change has taken place. The need to evaluate projects should be taken into account when planning funding for those projects. It is recommended that the evaluation of local initiatives is carried out in partnership with local centres that have expertise in evaluation methods, such as health authorities, public health observatories and universities.

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[10] www.drfoster.co.uk/library/reports/obesityManagement.pdf

There is also limited high quality long-term evaluation of national schemes that are implemented locally and may have an impact on weight, diet or physical activity (such as interventions promoting a 'whole-school approach' to health, Sure Start initiatives and exercise referral schemes for children). It is therefore recommended that all current and future actions be rigorously monitored and evaluated with their potential health impact in mind. Evaluation of campaigns (including social marketing campaigns) should go beyond the 'reach' of the campaigns and more fully explore their effectiveness in changing behaviour.

4.5.3 Clinical practice

In clinical practice there is a need to set up a registry on the use of orlistat and sibutramine in young people. There is also a need to undertake arrangements for prospective audits of bariatric surgery, so that the outcomes and complications of different procedures, their impact on quality of life and nutritional status, and the effect on comorbidities can be monitored in both the short and the long term.

5 Other versions of this guideline

5.1 Full guideline

The full guideline, 'Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children', contains details of the methods and evidence used to develop the guideline. It is published by the National Collaborating Centre for Primary Care and the Centre for Public Health Excellence at NICE, and is available from www.rcgp.org.uk/nccpc_/nccpc_home.aspx, our website (www.nice.org.uk/CG043fullguideline) and the National Library for Health (www.nlh.nhs.uk).

The marketing authorisation for sibutramine has been supended. See front cover for details.

5.2 *Quick reference guides*

Two quick reference guides are available from www.nice.org/CG043quickrefguide – quick reference guide 1 for local authorities, schools and early years providers, workplaces and the public; quick reference guide 2 for the NHS.

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1152 for quick reference guide 1, N1154 for quick reference guide 2).

5.3 *'Understanding NICE guidance'*

Two booklets of information for the public, patients and carers ('Understanding NICE guidance') are available from www.nice.org.uk/CG043publicinfo – one covers prevention, and the other covers management of overweight and obesity.

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1153 for 'Preventing obesity and staying a healthy weight' and N1155 for 'Treatment for people who are overweight or obese').

6 Related NICE guidance

This guidance has updated, and replaces, the following NICE technology appraisals.

- Guidance on the use of surgery to aid weight reduction for people with morbid obesity. *NICE technology appraisal guidance* no. 46 (2002). Available from www.nice.org.uk/TA046
- Guidance on the use of sibutramine for the treatment of obesity in adults. *NICE technology appraisal guidance* no. 31 (2001). Available from www.nice.org.uk/TA031
- Guidance on the use of orlistat for the treatment of obesity in adults. *NICE technology appraisal guidance* no. 22 (2001). Available from www.nice.org.uk/TA022

The marketing authorisation for sibutramine has been supended. See front cover for details.

NICE has published the following related guidance.

- Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling. *NICE public health intervention guidance* no. 2 (2006). Available from www.nice.org.uk/PHI002
- Eating disorders: core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders. *NICE clinical guideline* no. 9 (2004). Available from www.nice.org.uk/CG009
- Management of type 2 diabetes: management of blood pressure and blood lipids. *NICE guideline* H (2002). Available from www.nice.org.uk/guidance/CGH
- Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition. *NICE clinical guideline* no. 32 (2006). Available from www.nice.org.uk/CG032

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

- Guidance for midwives, health visitors, pharmacists and other primary care services to improve the nutrition of pregnant and breastfeeding mothers and children in low income households. *NICE public health programme guidance*. Expected date of publication September 2007.
- Guidance on the promotion and creation of physical environments that support increased levels of physical activity. *NICE public health programme guidance*. Expected date of publication February 2008.
- Promotion of physical activity in children. *NICE public health programme guidance*. Date of publication to be confirmed.

7 Updating the guideline

NICE clinical guidelines are updated as needed so that recommendations take into account important new information. We check for new evidence 2 and 4 years after publication, to decide whether all or part of the guideline should be updated. If important new evidence is published at other times, we may decide to do a more rapid update of some recommendations.

Appendix A: The Guidance Development Groups

Professor James McEwen (Chair)
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National Institute for Health and Clinical Excellence

Project Team, Centre for Public Health Excellence

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Dr Helen Morgan (from January 2006), Information Specialist

Ms Lesley Sander (from April 2005), Information Specialist

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Dr Kathy DeMott, Senior Health Research Fellow, NCC-PC

Ms Katie Pike, Statistician, Department of Health Sciences, University of Leicester

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 guideline and takes responsibility for monitoring adherence to NICE guideline development processes. In particular, the panel ensures that stakeholder comments have been adequately considered and responded to. The Panel includes members from the following perspectives: primary care, secondary care, lay, public health and industry.

Professor Mike Drummond (Chair)
Professor of Health Economics, Centre for Health Economics,
University of York

Dr Ann Hoskins
Deputy Regional Director of Public Health, NHS North West

Dr Matt Kearney
GP Public Health Practitioner, Knowsley PCT, and General Practitioner,
Castlefields, Runcorn

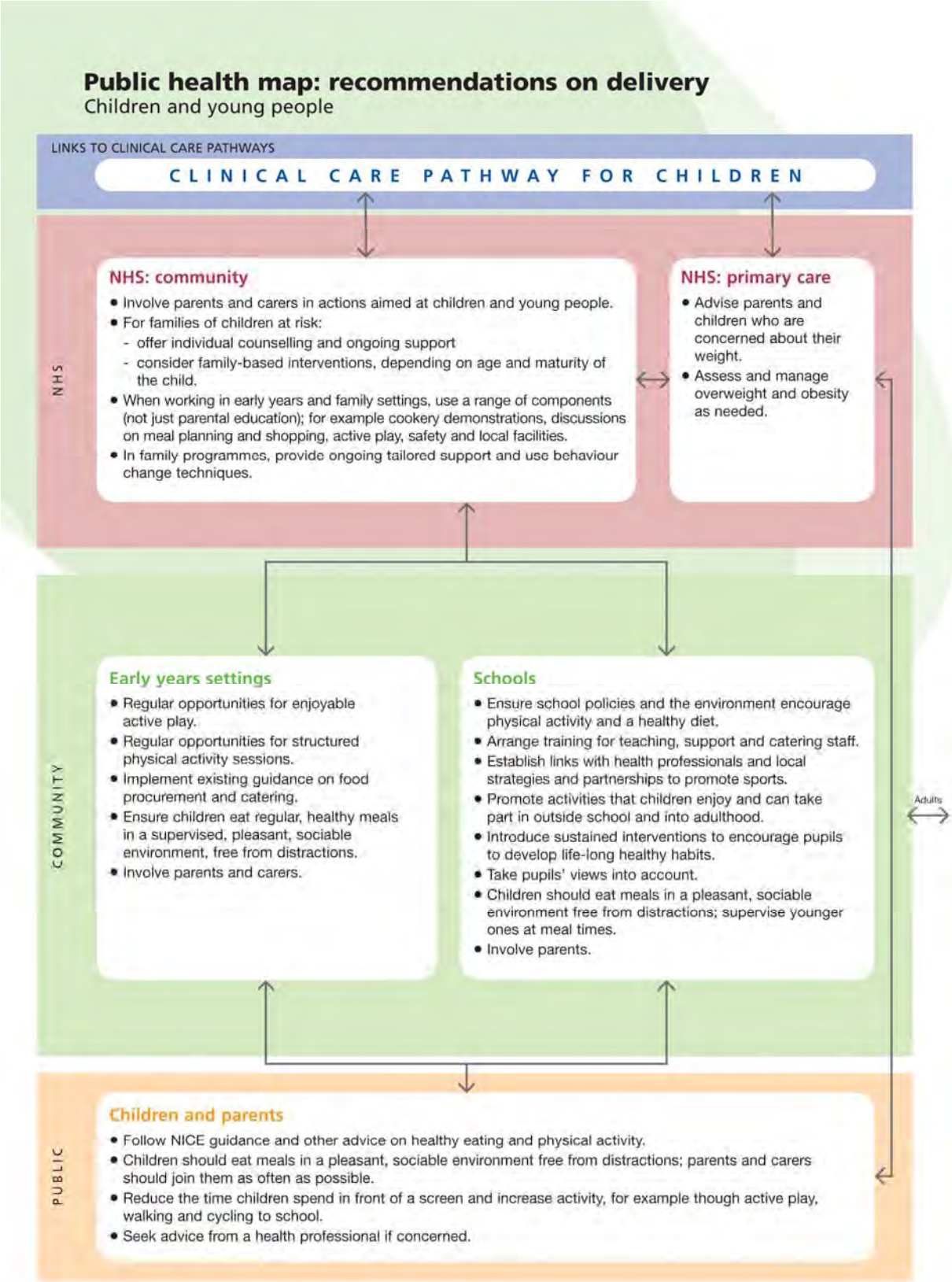
Professor Ruth Hall
Regional Director, Health Protection Agency South West

Dr John Harley
Clinical Governance and Prescribing Lead, North Tees PCT

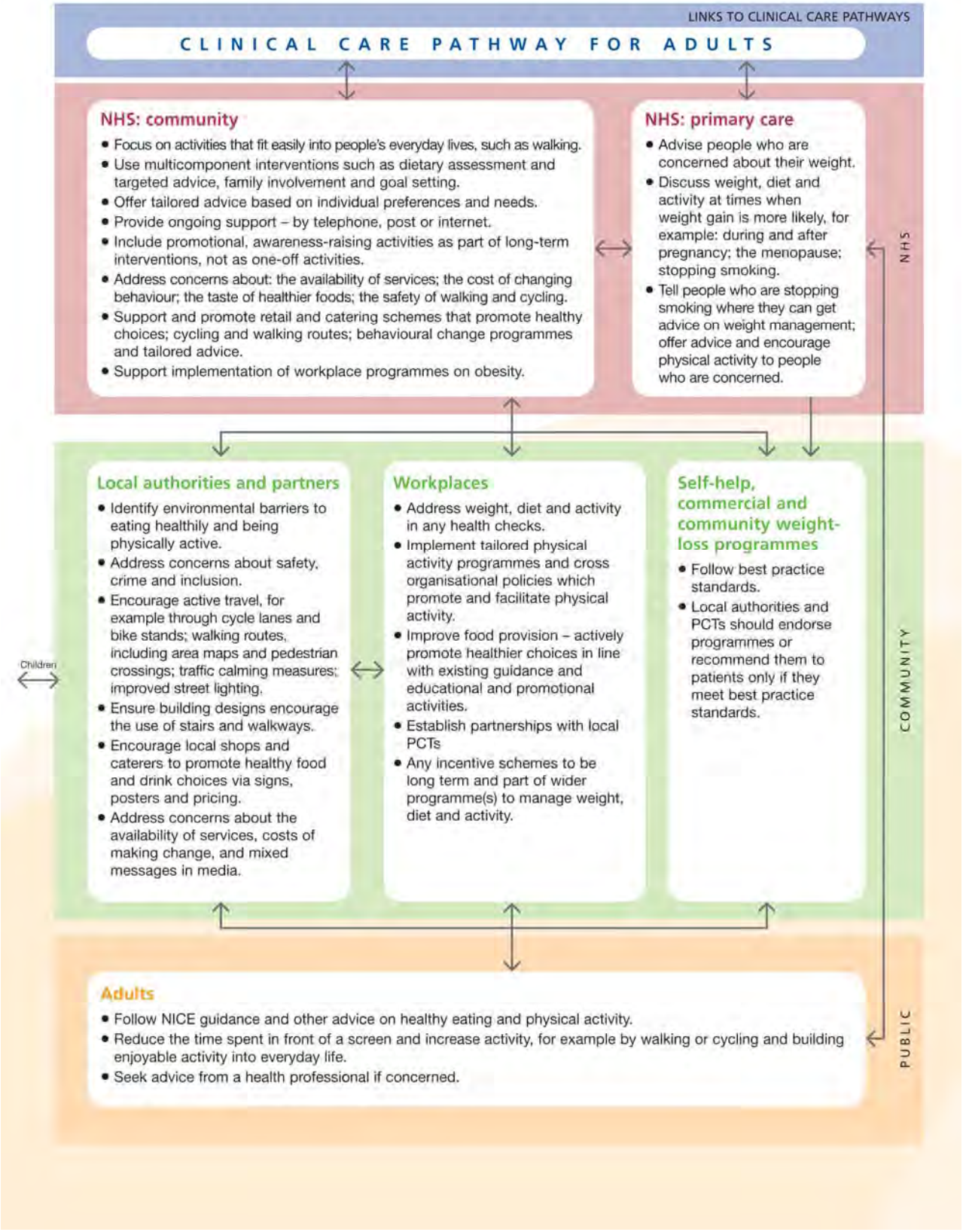
Mr Barry Stables
Patient/Lay Representative

Dr Robert Walker
General Practitioner, West Cumbria

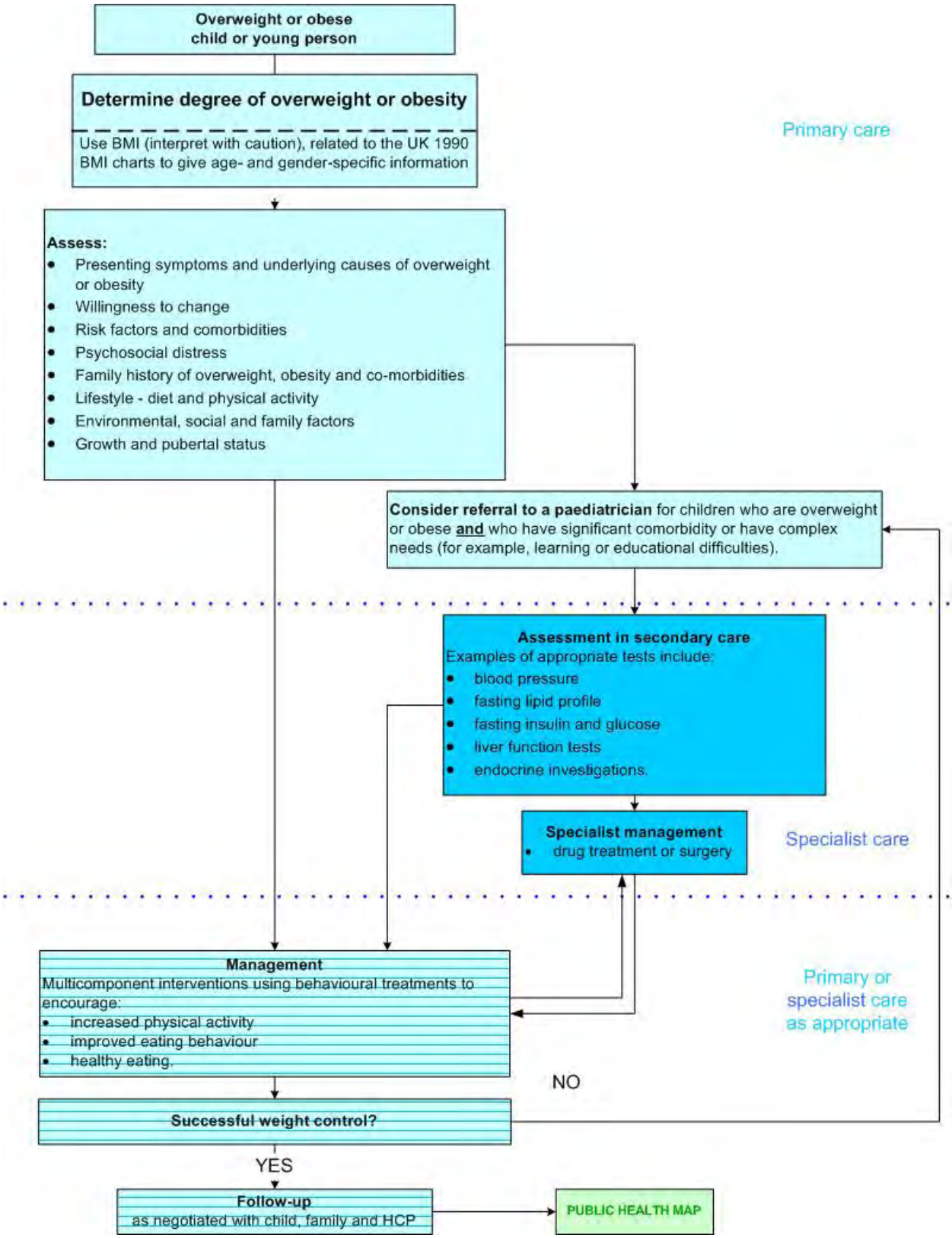
Appendix C: The algorithms



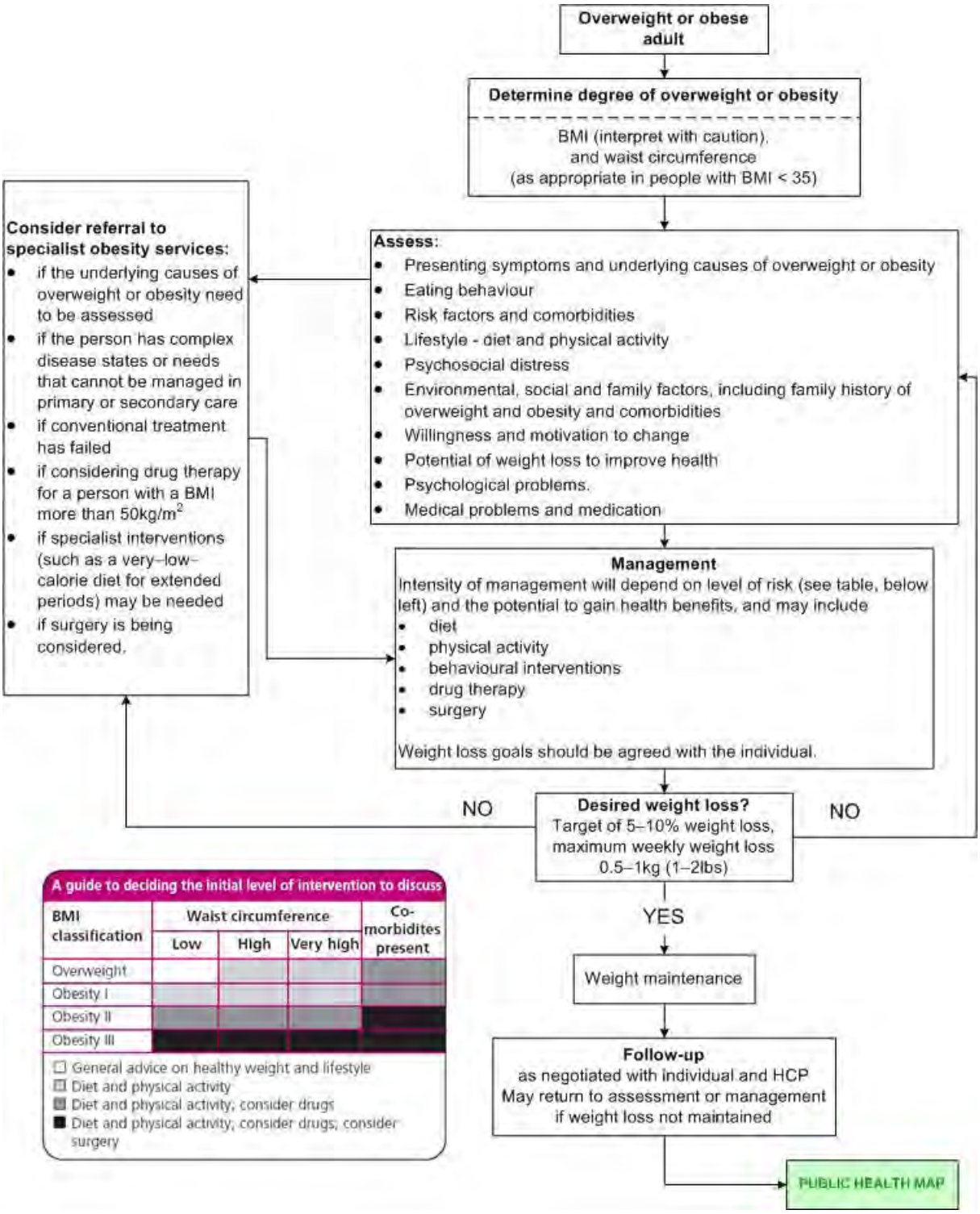
Public health map: recommendations on delivery
Adults



Clinical care pathway for children



Clinical care pathway for adults



Appendix D: Existing guidance on diet, physical activity and preventing obesity

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

Diet

The standard UK advice on healthy eating, summarised in table 1, is based on recommendations made by the Scientific Advisory Committee on Nutrition (SACN), and (before 2000) by the Committee on the Medical Aspects of Food Policy.

Table 1 Standard population dietary recommendations

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

[a] The maximum amount of salt recommended for children is less than that for adults – see www.salt.gov.uk

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

This advice is summarised for consumers in a picture showing the proportions of each food groups in a healthy diet – 'The balance of good health' (see below).

Reproduced by kind permission of the Food Standards Agency (FSA).

The Food Standards Agency summarises the advice as:

- 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.[11]
- Get active and try to be a healthy weight.
- Drink plenty of water.
- Don't skip breakfast.
- And remember to enjoy your food!

The Department of Health advises that men should drink no more than 3–4 units of alcohol per day, and women no more than 2–3 units of alcohol per day. The Food Standards Agency also advises consumers that cutting

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

down their alcohol intake could help them control their weight. 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

Advice on physical activity has existed for several years, and the Chief Medical Officer’s (CMO’s) report ‘At least five times a week’ examined its validity in the light of evidence on the links between physical activity and health. The NICE guidance on obesity does not alter the current guidelines.

Adults

For general health benefits. The current recommendations are for adults to take 30 minutes or more of at least moderate-intensity physical activity on five or more days of the week. This can be in one session or several sessions lasting 10 minutes or more each day. These recommendations also apply to older people.

To prevent obesity. Many people may need 45–60 minutes of moderate activity each day unless they also reduce their energy intake.

To prevent regaining weight. People who have been obese and have lost weight may need to do 60–90 minutes of moderate activity a day.

Children and young people

The amount of activity that children and young people need to prevent obesity is unclear. It is recommended that children and young people should take a total of at least 60 minutes of at least moderate-intensity physical activity each day, although this may not be enough to prevent obesity. At least twice a week, children should take part in activities that improve bone health, muscle strength and flexibility.

Types of activity

Moderate-intensity activity usually increases a person’s breathing rate and heart rate and makes them feel warm (see box 1 for examples).

Box 1 Examples of moderate-intensity activities

- brisk walking
- cycling
- swimming (with moderate effort)
- stair climbing (with moderate effort)
- gardening – digging, pushing mower or sweeping leaves
- general house cleaning
- painting and decorating
- general callisthenics (sit-ups, push-ups, chin-ups)
- gentle racquet sports such as table tennis and badminton (social)
- golf – walking, wheeling or carrying clubs.

NICE guidance on physical activity

The NICE guidance 'Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community based exercise programmes for walking and cycling' (2006) recommends that inactive individuals should be identified by using a validated tool, such as the Department of Health's general practice physical activity questionnaire (GP PAQ).

Potential risks

The wide range of health benefits of physical activity significantly outweigh the risks (for example, from injury or accidents), particularly at the levels of activity required to promote and maintain health. The Chief Medical Officer's 2004 report states that 'the people who will benefit most from physical activity are inactive people who begin to take part in regular moderate-intensity activity. If these people increase their level of activity gradually, they are unlikely to face undue risks. The greatest risks from physical activity are faced by:

- people who take part in vigorous sports and exercise
- people who do excessive amounts of exercise, and
- people with existing musculoskeletal disease or at high risk of disease.'

Sources of information on existing guidance and trends

- www.fph.org.uk/policy_communication/publications/toolkits/obesity/default.asp
- www.foodstandards.gov.uk
- www.schoolfoodtrust.org.uk
- www.eatwell.gov.uk
- www.dh.gov.uk
- www.5aday.nhs.uk
- www.nhsdirect.nhs.uk
- www.sportengland.org
- www.nutritionnetworkwales.org.uk
- www.cmo.wales.gov.uk – for information on food and fitness, and guidance on vending and fruit tuck shops
- http://new.wales.gov.uk – for information on Health Challenge Wales.

The implementation tools for this guideline have information about more sources of information, particularly for professional groups. They are available from www.nice.org.uk/CG043