

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

PUBLIC HEALTH DRAFT GUIDELINE

Maintaining a healthy weight and preventing excess weight gain among children and adults

What is this guideline about?

This guideline makes recommendations on changes that individual adults and children can make to their behaviour that may help them maintain a healthy weight or prevent further weight gain if they are already overweight. The guideline may also help prevent weight re-gain in adults who have previously lost weight.

The aim is to help reduce the risk of the main diseases associated with excess weight. These include: coronary heart disease, hypertension, liver disease, osteoarthritis, stroke, type 2 diabetes, and some cancers such as breast, colon, endometrial and kidney cancer.

The guideline is for those who commission, design, implement or evaluate interventions that aim to help different population groups maintain a healthy weight or prevent excess weight gain. (For further details, see [Who should take action?](#)) In addition, it may be of interest to members of the public.

See [About this guideline](#) for details of how the guideline was developed and its current status.

Contents

What is this guideline about?	1
1 Draft recommendations	3
2 Context	9
3 Considerations.....	11
4 Recommendations for research.....	20
5 Related NICE guidance	22
6 Glossary	23
7 References	27
8 Summary of the methods used to develop this guideline	27
9 The evidence	33
10 Gaps in the evidence.....	35
11 Membership of the Public Health Advisory Committee and the NICE project team.....	36
About this guideline.....	39

1 Draft recommendations

This guideline replaces [section 1.1.1](#) of 'Obesity' NICE clinical guideline 43 (2006).

Who should take action?

Each recommendation in this guideline is aimed at all those who commission, design, deliver, implement or evaluate interventions aimed at helping children or adults maintain a healthy weight or prevent excess weight gain. This includes those with a responsibility for the health and wellbeing of children, young people and adults in settings such as schools and workplaces. They could be working in local authorities, the NHS and other organisations in the public, private, voluntary and community sectors.

Recommendation 1 Support everyone to maintain a healthy weight or prevent excess weight gain

All those with a responsibility for public health should support everyone to maintain a healthy weight or prevent excess weight gain. They should:

- Clearly communicate the benefits of adopting behaviours to maintain a healthy weight, including:
 - reduced risk of diseases associated with excess weight such as coronary heart disease, hypertension, liver disease, osteoarthritis, stroke, type 2 diabetes and some cancers
 - extra benefits of improving [physical activity](#) (for example, preserving muscle and bone mass for older adults)
 - extra benefits of improving [dietary habits](#) (such lower blood cholesterol)
 - non-health benefits, such as the enjoyment gained from shared social activities or the positive impact of physical activity on sleep and learning.
- Ensure that any communications or activities to promote the maintenance of a healthy weight or prevent excess weight gain:
 - address both physical activity and diet (see recommendation 2)

- use effective methods for encouraging and enabling behaviour change (see [Behaviour change: individual approaches](#), NICE public health guidance 49)
- emphasise the benefits of gradual changes. Any, even small, improvements to physical activity and dietary habits are likely to be helpful
- target and tailor messages, using local knowledge (such as the Joint Strategic Needs Assessment or local surveys), to meet the needs of the population, recognising that some groups may need more support than others. Messages should be clear, specific and non-judgemental. For more information see [recommendation 5](#) in NICE’s guideline on ‘Obesity: working with local communities’ and [recommendation 6](#) in NICE’s guideline on ‘Preventing type 2 diabetes: population and community-level interventions’
- are integrated with the local strategic approach to obesity (see [recommendation 1](#) in Obesity: working with local communities, NICE public health guidance 42).

Recommendation 2 Focus on both physical activity and dietary habits

Public health activities aimed at helping individuals to maintain a healthy weight and prevent excess weight gain should encourage everyone to:

- Adopt a combination of increased physical activity and healthier dietary habits to help achieve [energy balance](#) (see recommendations 3 and 4).
- Follow existing population advice on physical activity because it is likely to help increase energy expenditure and reduce the risk of diseases associated with excess weight. (For existing advice on physical activity see [NHS Choices](#) and [recommended level of physical activity](#).)
- Follow population advice on healthy eating because it will make it easier to achieve an appropriate energy intake. (For existing advice on healthy eating see [NHS Choices](#).)

- Avoid behaviours that may hamper attempts to maintain a healthy weight or prevent excess weight gain. For example consuming sugar-sweetened drinks or snacks with a high [energy density](#) after being physically active.
- Ensure habits for maintaining a healthy weight or preventing excess weight gain continue through weekends and holiday periods (for example, the school summer holiday).
- Parents and carers should help children and young people to get enough sleep. Parents and carers should be advised of age-specific recommendations on sleep (for example, see [NHS Choices](#)).

Recommendation 3 Encourage physical activity habits that increase energy expenditure

Public health activities aimed at helping people to maintain a healthy weight and prevent excess weight gain should encourage everyone to be more physically active and reduce sedentary behaviour at every opportunity. Everyone should be encouraged to develop routines and habits that gradually increase the amount and intensity of activity they do. This may include:

- Increasing regular walking, particularly brisk walking, or cycling as a form of active travel (to school, work or other local destinations). (See [Walking and cycling](#) NICE public health guideline 41.)
- Increasing activities during leisure time and breaks at work or school (including aiming for some periods of [moderate-to-vigorous physical activity](#)). This could include any form of physical activity, sport or exercise such as walking, cycling, swimming, dancing or gardening. For children, it could also include active play.
- Increasing activity as part of daily routines (such as taking the stairs instead of the lift).
- Reducing TV viewing and other leisure screen time. Any strategy that reduces TV viewing and other leisure screen time may be helpful (such as TV free days or setting a limit to watch TV for no more than 2 hours a day).

Additional advice for children and young people

- Parents, carers and everyone in regular contact with children and young people should encourage and support them to be active at every opportunity (such as active school breaks). Active play, sport or family leisure activities will all help children maintain a healthy weight and prevent excess weight gain (see [Promoting physical activity for children and young people](#) NICE public health guideline 17).

Recommendation 4 Encourage dietary habits that reduce the risk of excess energy intake

Public health activities aimed at helping individuals maintain a healthy weight and prevent excess weight gain should encourage everyone to:

Eating patterns

- Reduce the overall [energy density](#) of the diet. Options may include:
 - reducing how often energy dense foods (such as fried foods, biscuits, confectionary and full fat cheese) are eaten
 - substituting energy dense items with foods and drinks with a lower energy density (such as fruit and vegetables) instead
 - choosing smaller portions or avoiding additional servings of energy dense foods.
- Follow the principles of a [Mediterranean diet](#), which is a diet predominantly based on vegetables, fruits, beans and pulses, wholegrains, fish and using olive oil instead of other fats.
- Eat breakfast. Breakfast choices should reflect general healthy eating advice (such as opting for unsweetened wholegrain cereals or bread and lower fat milk). People who do not usually eat breakfast should eat it instead of other energy dense snacks such as pastries or biscuits.
- Aim for meals to be enjoyable occasions without distractions (for example, avoid eating while watching television).

Specific dietary choices

- Limit the amount of ‘fast’ or ‘takeaway’ foods eaten. Any strategy that helps to reduce the amount of ‘fast’ or ‘takeaway’ foods consumed and how often they are eaten is likely to be helpful (such as limiting these foods to no more than once a week).
- Avoid sugar-sweetened drinks (including carbonated drinks, sports drinks, squashes and any other hot or cold drinks that contain added sugar). Everyone should be encouraged to choose water or other drinks that are unsweetened. Other unsweetened drinks may include coffee, tea (including green tea), or drinks containing [non-nutritive sweeteners](#), such as ‘diet’ versions of carbonated drinks or squashes.
- Reduce total fat intake. Everyone should be encouraged to choose lower fat options of the main sources of fat in the diet (such as meat and meat products, milk and dairy products, fats and oils and baked foods such as pizza, biscuits and cakes). Other strategies include reducing portion size or frequency of consumption of foods high in fat.
- Increase the proportion of high fibre or wholegrain-rich foods eaten. For example:
 - choosing wholemeal bread and pasta and wholegrain rice instead of ‘white’ versions, and
 - opting for higher fibre foods such as oats, fruit and vegetables, beans, peas and lentils in place of foods or drinks high in fat or sugar.
- Limit intake of meat and meat products. For example, reducing the portion size of meat or how often meals with meat are eaten.

Recommendation 5 Encourage adults to limit the amount of alcohol they drink

Public health activities aimed at helping individuals maintain a healthy weight and prevent excess weight gain should encourage everyone not to exceed existing recommendations on moderate [alcohol consumption](#).

- Everyone should be made aware that all alcoholic drinks are a source of additional energy. For example, a man drinking the upper weekly limit of 21

units will be consuming around 1400 to 1800 extra calories each week. For more information see [NHS Choices](#).

Recommendation 6 Address misconceptions about behaviours that may influence weight

Public health messages about behaviours that may influence weight should be clear and consistent. Messages should address any misconceptions about behaviours that may influence weight. For example, be clear that:

- Healthy eating and being active are as important for people who are currently a healthy weight as for people who are already overweight.
- Weight gain in adulthood is not inevitable, but most people will gain weight as they get older if they are inactive and eat an energy dense diet. (See glossary for [energy density](#)).
- Extreme behaviours (such as aiming to avoid all carbohydrates) are difficult to sustain and may not be accompanied by wider improvements in health.
- No single factor (for example a specific food, drink or physical activity) will maintain a healthy weight.
- All foods and drinks contain energy and can contribute to weight gain if large amounts are consumed, even those sometimes perceived as ‘healthy’ (such as olive oil, fruit juice or milk).
- Eating in the evening (for example, after 5pm compared with earlier in the day) will not make it harder to maintain a healthy weight, unless total energy intake is increased.

Recommendation 7 Encourage self-monitoring

Public health activities aimed at helping individuals maintain a healthy weight and prevent excess weight gain should:

- Encourage adults to regularly (for example, daily or weekly) monitor their weight. (See recommendation 7 in [Behaviour change: individual approaches](#), NICE public health guideline 49).
- Encourage adults to monitor their physical activity level (for example, by using a pedometer or an app to track physical activity). (See recommendation 7 in [Walking and cycling](#) NICE public health guideline 41).

- Encourage adults to monitor their food and drink intake (for example, by noting down meals and snacks, or using an app to track intake or check the nutritional value of food and drinks).

Recommendation 8 Provide sources of information and support

Public health activities aimed at helping individuals maintain a healthy weight and prevent excess weight gain should:

- Provide contact details for relevant services to adults who have any concerns about their – or their family’s – diet, activity levels or weight. They should also encourage people to consult reliable sources of information, such as [NHS Choices](#). For more information see [Managing overweight and obesity in adults – lifestyle weight management](#) NICE public health guideline 53 and [Managing overweight in children and young people – lifestyle weight management services](#) NICE public health guideline 47.

2 Context

In 2012, the mean [body mass index](#) (BMI) of adults in England was approximately 27 kg/m². Adults with a healthy weight (BMI 18.5 to 24.9 kg/m²) were in the minority (32% of men and 41% of women). Most people were either overweight (BMI 25 to 30) or obese (BMI over 30). (See the glossary for a more detailed definition of [adults who are overweight or obese](#).) Around 28% of children aged 2 to 15 were classified as either [overweight or obese](#) ([Statistics on obesity, physical activity and diet: England 2014](#) The Health and Social Care Information Centre 2014).

Mean BMI among adults has increased by about 1.3kg/m² since 1993 and the proportion of adults classified as a healthy weight has decreased by about 9 percentage points between 1993 and 2012. ([Statistics on obesity, physical activity and diet: England 2014](#) The Health and Social Care Information Centre 2014).

Population studies suggest that people's average weight increases gradually through life, for example, 1 UK-based cohort study found adults gained about 0.2 kg per year (Golubic et al. 2013).

Although overweight and obesity are common among all social groups, the rate increases with social disadvantage ([Fair society, healthy lives: a strategic review of health inequalities in England post-2010](#) The Marmot Review 2010). For example, among children, data from the National Child Measurement programme suggests that obesity prevalence of the most deprived 10% of children is approximately twice that of the least deprived 10% ([Public Health England](#)). Obesity is also linked to ethnicity: it is most prevalent among black African women (38%) and least prevalent among Chinese and Bangladeshi men (6%) ([Health Survey for England 2004: the health of minority ethnic groups – headline tables](#) The NHS Information Centre 2006).

Being overweight or obese can lead to chronic and severe medical conditions ([Tackling obesities: future choices – project report](#) Foresight 2007). It is estimated that life expectancy is reduced by an average of 2 to 4 years for people with a BMI of 30 to 35 kg/m², and 8 to 10 years for people with a BMI of 40 to 50 kg/m² ([Prospective Studies Collaboration 2009](#)).

Black African, African–Caribbean and Asian (South Asian and Chinese) groups are at risk at a lower BMI than white Europeans. Lower BMI thresholds (23 kg/m² to indicate increased risk and 27.5 kg/m² to indicate high risk) to trigger action to reduce the risk of conditions such as type 2 diabetes has been recommended for these groups. See [BMI and waist circumference - black, Asian and minority ethnic groups](#) (NICE public health guideline 46).

Around 85% of people with hypertension have a BMI greater than 25 kg/m², and 90% of those with type 2 diabetes have a BMI greater than 23 kg/m² ([Tackling obesities: future choices – project report](#) Foresight 2007). People who are obese may also experience mental health problems, stigmatisation and discrimination. The cost to society and the economy of people being overweight or obese was estimated at almost £16 billion in 2007 (more than 1% of gross domestic product). It could rise to just under £50 billion in 2050, if

obesity rates continue to increase unchecked ([Tackling obesities: future choices – project report](#) Foresight 2007).

[Healthy lives: a call to action on obesity in England](#) (DH 2011) aimed to reduce ‘the level of excess weight average across all adults by 2020’. It advocated a ‘life course’ approach (that is, an approach for different key stages of life). It also stressed the importance of striking a balance between treating people who are already obese, and sustained, local action to prevent people becoming overweight or obese in the first place (DH 2011).

A NICE guideline on the [prevention, identification, assessment and management of overweight and obesity in adults and children](#) (NICE clinical guideline 43) was published in 2006. Since then, NICE has published a range of public health guidelines that draw on these recommendations – or provide more specific advice (see [section 6](#)). However, NICE has not made any further recommendations on how people can maintain a healthy weight or prevent excess weight gain.

A review of NICE’s guideline on obesity in 2011 noted that new evidence may be available on how children and adults can maintain a healthy weight or prevent excess weight gain.

In addition, [Obesity: working with local communities](#) (NICE public health guidance 42 [2012]), also raised issues about the way messages and advice about weight are communicated, particularly the tone and language used.

3 Considerations

This section describes the factors and issues the Public Health Advisory Committee (PHAC) considered when developing the recommendations. Please note: this section does **not** contain recommendations. (See [Recommendations](#).)

Approach

- 3.1 The Committee’s key aim for the update of section 1.1.1 of [Obesity](#) (NICE clinical guideline 43), was to provide more up-to-date,

nuanced information on factors that might help people maintain a healthy weight or prevent excess weight gain, as requested by stakeholders during the review of the Obesity guideline (as above).

Healthy weight

- 3.2 The majority of evidence in the reviews considered by the Committee tended to define a healthy weight as a BMI of 18.5 kg/m² to 24.9 kg/m², in line with existing NICE guidelines on assessment of obesity. See [Obesity](#) (NICE clinical guideline 43). However, the Committee recognised that, given mean BMI is around 27 kg/m² for adults, the main aim for many people may be to prevent further weight gain. They also recognised that what is considered a 'healthy weight' may differ by ethnic group and age because of differences in body composition and fat distribution. See [BMI and waist circumference - black, Asian and minority ethnic groups](#) (NICE public health guideline 46) and (Prentice and Jebb 2001). Despite this, the committee were able to make recommendations that apply to all population groups.
- 3.3 The Committee did not consider maintenance of weight among people who had previously lost weight. They recognised that while the recommendations may help this group prevent re-gaining weight, additional action may be needed. People that are finding it difficult to maintain a healthy weight through the types of habits outlined in this guideline may benefit from effective [lifestyle weight management programmes](#).

Energy balance

- 3.4 The Committee recognised that the basis of weight gain is that energy intake ('calories in') exceeds energy expenditure ('calories out').
- 3.5 This concept of energy balance provided the basis for developing recommendations where the evidence was lacking. Activities which were known to increase energy expenditure or decrease energy

intake were assumed to contribute to the maintenance of a healthy weight. The energy balance concept also implies that addressing a range of both dietary habits and physical activity behaviours is more likely to be effective than changing a single factor in isolation. In addition, evidence considered when developing previous NICE guidelines – for example school based interventions to prevent obesity or the management of obesity in children and adults – suggests that a multicomponent approach, addressing both dietary habits and physical activity, is likely to be effective.

- 3.6 The evidence base was often unclear in relation to energy balance, because many studies adjusted for energy intake, obscuring any association and tending to bias towards no association. The Committee was of the view that adjusting for energy intake when associations between dietary habits and weight outcomes are being considered is unhelpful and have made research recommendations in this light.

Evidence

- 3.7 The Committee supported a pragmatic approach to reviewing the evidence for this work, given the span of the topic and the need to develop best practice recommendations. They recognised that focusing only on high quality systematic reviews may mean that evidence for specific factors, particularly newer areas of research, may have been overlooked. However, it was agreed that the focused approach made the task manageable in the time available.
- 3.8 The majority of studies included in the systematic reviews were observational cohort studies. While this type of evidence is appropriate for identifying associations between individually modifiable factors and weight outcomes, it cannot determine causality. In particular, the Committee were not able to determine whether inadequate sleep directly increased risk of excess weight gain in children (for example, by affecting appetite or activity level) or whether it was a merely a marker for other aspects of their lives,

such as increased time spent watching television. Similarly, the Committee assumed that the observed associations between fast and takeaway foods and weight outcomes was because of the high energy density of these foods. They also assumed that observed associations between TV viewing and weight outcomes may be because of snacking while watching TV, being prompted to eat by TV programmes or adverts, or eating more while being distracted by TV.

3.9 The Committee was also aware that some factors may cluster. For example, people who are healthier may follow to a range of dietary or physical activity behaviours that will help them maintain their weight. This makes it difficult to identify associations with individual factors. The nature of the evidence prevented detailed consideration of the context within which people may be more or less likely to follow a particular behaviour or identify any interactions between behaviours (for example, appetite and physical activity).

3.10 The Committee was aware that eating breakfast has been part of population advice on healthy eating for many years. Observational evidence supports this advice, suggesting that people who eat breakfast tend to have lower weight or weight gain. However, evidence from trials of breakfast consumption is not always consistent. The Committee recognised that advice should be clear that breakfast may support a healthy weight if it is eaten as an alternative to other snacks. The Committee was concerned that people who start to eat breakfast without making other dietary changes may only be increasing their energy intake.

3.11 The randomised controlled trials included in the systematic reviews tended to be short term. The reviews provided limited information on the strength of associations or wider applicability. Very little evidence was identified on particular population groups, such as those from different social or ethnic groups, and it was unclear

whether any inequalities had been investigated or identified. Therefore, while the recommendations in this guideline apply to all population groups, the Committee considered this an important gap in the evidence and have made recommendations for further research.

- 3.12 In instances where the evidence was inconclusive, the ‘direction of travel’ of the findings was often consistent across studies. The Committee was also able to draw on their wider knowledge of the topic to develop recommendations. For example, the evidence on active travel and weight outcomes was limited. However, the Committee was aware of wider evidence that active travel is an important contributor to incidental activity, for which weight outcomes were available. Similarly, the evidence on holiday weight gain was limited. However, the Committee was aware of wider evidence on children and young people’s poorer dietary and physical activity habits during school holidays compared with term time. The Committee discussed that adults may also have higher mean energy intake and lower energy expenditure during holiday periods.
- 3.13 The Committee was of the view that some unexpected associations may have been the result of ‘reverse causality’. This is likely to have been the reason for the observed association between higher consumption of non-nutritive sweeteners and higher weight or weight gain. The Committee discussed that people who have a higher BMI may be more likely to consume products with non-nutritive sweeteners.
- 3.14 The Committee was concerned that many people may have misconceptions about the role of individual products on weight for example, incorrectly assuming a single food or behaviour can prevent excess weight gain on its own. The Committee was of the view that dispelling common misconceptions was critical because they may hamper efforts to maintain a healthy weight.

- 3.15 The search strategy for the evidence reviews took an iterative approach. The search focused on systematic reviews with weight outcomes. An additional, limited search for primary studies was undertaken for several factors for which no systematic review evidence was identified. However, because of the limited nature of the search for primary studies, the Committee agreed that this evidence should not be considered alongside the systematic review evidence.
- 3.16 The consideration of interventions in specific settings (such as schools or workplaces) was outside the remit of this guideline. However, the Committee recognised that these settings are important in facilitating improvements in physical activity and dietary habits. For children, the support and encouragement of parents, carers and staff working in schools and clubs is vital in helping them to make good choices.

Specific thresholds

- 3.17 The Committee was aware that many health professionals would like specific information on behaviours associated with weight gain – for example, an upper daily limit for TV viewing or amount of sugar-sweetened drinks consumed. The Committee recognised that providing upper or lower thresholds for a behaviour (such as limiting TV viewing to no more than 2 hours) can be helpful for people. However, they observed that in most instances, the outcome (such as weight, weight gain or prevalence of obesity) tended to increase or decrease (as appropriate) in line with the amount of the factor. This means that, for example, any reduction in television viewing or increase in physical activity is likely to be helpful. Commonly reported thresholds may be driven by data analysis decisions rather than being true biological thresholds. The Committee was also concerned that people who most need to change their behaviour could be put off by goals that seem out of their reach.

Screen time

3.18 Evidence of a positive association between TV viewing and weight outcomes in children is strong. The Committee recognised that many of the studies included in systematic reviews had been undertaken before other forms of screen – such as tablets or smart phones – were in common use. However these other forms of screen viewing are also likely to reduce overall physical activity level. There is little systematic review-level evidence available on the effectiveness of ‘active viewing’ games consoles on weight. The Committee was concerned that parents may purchase these items under the premise that they can increase physical activity levels to maintain a healthy weight, when in fact their effect is unclear.

Patterns of behaviours

3.19 The Committee was aware that patterns of behaviours have been an area of interest for researchers in recent years. The Committee had hoped that they might be able to make stronger recommendations about for example, time spent standing up, eating speed, meal planning or patterns in eating and physical activity across a week. However no systematic reviews were available on these topics and so research recommendations have been made.

Self-monitoring

3.20 No systematic reviews were identified which considered the effectiveness of self-monitoring of weight among a general population. The Committee was aware that self-monitoring has previously been identified as an important tool for adults maintaining weight after weight loss. Because of the lack of evidence, the Committee drew on existing NICE recommendations on proven behaviour change techniques (see recommendation 7 in [Behaviour change: individual approaches](#) NICE public health guidance). However, they were not able to indicate the optimal

frequency or method of monitoring. Research recommendations have therefore been made.

Communication

- 3.21 The recommendations on the behaviours that can help people maintain a healthy weight reflect the evidence considered by the Committee. However, they recognised that the habits recommended may be very different from many people's usual choices. The Committee therefore emphasised the importance of communicating the benefits of even gradual changes, and the fact that any improvements in dietary habits and physical activity level are likely to be helpful.
- 3.22 The evidence considered by the Committee suggests that the acceptability of messages about weight differs across the population. The Committee noted the way in which messages are framed or worded may make them less acceptable to some people, for example, people with disabilities, from different age or ethnic groups, or with different body sizes.
- 3.23 The Committee recognised that some of the messages for maintaining a healthy weight are complex. For example, while fruit juice is part of 5 a day, and olive oil is included in a Mediterranean diet, high consumption of either – as with any food or drink containing calories – could lead to weight gain. They also recognised that while the range of potentially modifiable factors covered in the recommendations may be daunting for some people, emphasising a range of physical activity and dietary habits is vital.
- 3.24 The recommendations therefore emphasise the importance of tailoring messages according to local knowledge and the information needs of different groups.

Economic evaluation

- 3.25 The economic assessment for this guideline was based on existing economic modelling that NICE has undertaken for other public health guidelines. New modelling was not attempted because no new data were available to inform about the sustainability of [weight maintenance](#) or loss over long periods of time.
- 3.26 For adults, the Committee considered analysis based on previous modelling for the cost effectiveness of [lifestyle weight management in adults](#), and the [prevention of type 2 diabetes](#). Previous modelling shows that at least a 1 kg per head weight loss among overweight or obese adults, if maintained for life, is likely to be cost effective, provided that the cost per person of intervening is less than £100. This suggests that preventing at least a 1kg weight gain for the same cost will also be cost effective. The Committee noted that the effect size for many of the observed associations in the evidence reviews was higher than 1 kg per person, or is likely to be so if a collection of factors is undertaken as part of a 'multicomponent approach'. Previous modelling has also shown that very low-cost public health interventions (costing less than £10 per head), for an average weight loss of less than 1 kg per head, are likely to be cost effective. Based on this previous work, the Committee concluded that the types of approaches suggested in this guideline are likely to be cost effective, particularly as the recommendations may replace ineffective or incorrect advice.
- 3.27 The Committee noted that the concept of 'maintaining a healthy weight' used for adults needs to be modified for children because of growth in height and because a healthy BMI increases from age 6 to age 18. The concept for children is instead about 'maintaining a healthy BMI for one's age'.
- 3.28 For children, information was obtained from modelling for the cost effectiveness of lifestyle weight management in children. The evaluation is more complicated, because to achieve a healthy

weight, overweight and obese children do not necessarily have to lose weight but may be able to simply maintain weight while growing taller ('growing into a healthy weight'). In some cases, they may put on weight at a slow rate and still achieve a healthy weight in future by growing sufficiently quickly in compensation. However, being overweight or obese at the end of growth in height needs a loss in weight to achieve a healthy weight.

- 3.29 Previous economic modelling estimated that interventions for overweight children costing £100 per head would usually be cost effective from a public sector perspective. This would be the case if a group of overweight children moved to a lower average [weight trajectory](#) and this was maintained for life. (This is true for a weight loss of as little as 0.5%). Therefore, by inference, interventions that prevent a child moving onto a 0.5% higher average weight trajectory (or greater) for life would also be cost effective.
- 3.30 Brief advice interventions were inferred to be cost effective when their low cost was considered against the cost of weight management interventions. The Committee noted that activities and interventions to help people maintain a healthy weight and prevent overweight and obesity are already ongoing in many local areas. The recommendations in this guideline are likely to make interventions more effective and there is virtually no cost attached to improved, more specific advice.
- 3.31 Based on this previous work, the Committee concluded that the types of approaches suggested in this guideline are likely to be cost effective.

This section will be completed in the final document.

4 Recommendations for research

The Public Health Advisory Committee (PHAC) recommends that the following research questions should be addressed. It notes that 'effectiveness'

in this context relates not only to the size of the effect, but also to cost effectiveness and duration of effect. It also takes into account any harmful or negative side effects.

All the research should aim to identify differences in effectiveness among groups, based on characteristics such as socioeconomic status, age, gender and ethnicity.

- 4.1 More long-term randomised controlled trials considering complex associations between individually modifiable dietary habits, physical activity or other lifestyle behaviours and weight outcomes for a range of population groups. Consideration should be given to any impact on health inequalities. Findings for dietary habits should not be adjusted for energy intake.
- 4.2 More long-term high-quality randomised controlled trials considering associations between sedentary behaviours and weight outcomes for a range of population groups. This should include (but not be restricted to) consideration of leisure screen time (particularly for newer technologies, such as phone and tablet use). Consideration should be given to any impact on health inequalities.
- 4.3 More long-term high-quality randomised controlled trials considering associations between eating behaviours – such as eating frequency, speed or setting – and weight outcomes for a range of population groups. Consideration should be given to any impact on health inequalities.
- 4.4 More high-quality qualitative research considering acceptable messages, routes and sources of communicating information about individually modifiable behaviours and weight outcomes for a range of population groups. Consideration should be given to any impact on health inequalities.
- 4.5 More high-quality randomised controlled trials considering the optimal frequency and tools for monitoring body weight and

associated behaviours among populations with a healthy weight. These should include the transferability of data on weight management for the prevention of excess weight gain. Consideration should be given to any impact on health inequalities.

More detail identified during development of this guideline is provided in [Gaps in the evidence](#).

5 Related NICE guidance

Published

- [Overweight and obesity in adults: lifestyle weight management](#) NICE public health guidance 53 (2014)
- [Behaviour change – individual approaches](#) NICE public health guidance 49 (2014)
- [Overweight and obese children and young people: lifestyle weight management services](#) NICE public health guidance 47 (2013)
- [BMI and waist circumference – black, Asian and minority ethnic groups](#) NICE public health guidance 46 (2013)
- [Physical activity: brief advice for adults in primary care](#) NICE public health guidance 44 (2013)
- [Obesity: working with local communities](#) NICE public health guidance 42 (2012)
- [Walking and cycling](#) NICE public health guidance 41 (2012)
- [Preventing type 2 diabetes: risk identification and interventions for individuals at high risk](#) NICE public health guidance 38 (2012)
- [Preventing type 2 diabetes: population and community interventions](#) NICE public health guidance 35 (2011)
- [Weight management before, during and after pregnancy](#) NICE public health guidance 27 (2010)
- [Prevention of cardiovascular disease](#) NICE public health guidance 25 (2010)
- [Physical activity and the environment](#) NICE public health guidance 8 (2008)

- [Behaviour change: the principles for effective interventions](#) NICE public health guidance 6 (2007)
- [Obesity](#) NICE clinical guideline 43 (2006)
- [Eating disorders](#) NICE clinical guideline 9 (2004)

Under development

- [Exercise referral schemes](#) NICE public health guidance. Publication September 2014

6 Glossary

Adults who are overweight or obese

The [body mass index](#) (BMI) of an adult is used to assess if they are overweight or obese. The following table shows the cut-off points for a healthy weight or of being overweight or obese:

Classification	BMI (kg/m²)
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

Body mass index is a less accurate indicator of adiposity (whether someone is overweight or obese) in adults who are highly muscular, so it should be interpreted with caution in this group.

Waist circumference can also be used to assess whether someone is at risk of health problems because they are overweight or obese. For men, a waist circumference of less than 94 cm is low risk, 94–102 cm is high and more than 102 cm is very high risk. For women, a waist circumference of less than 80 cm is low risk, 80–88 cm is high and more than 88 cm is very high risk.

The use of lower BMI thresholds (23 kg/m² to indicate increased risk and 27.5 kg/m² to indicate high risk) to trigger action to reduce the risk of

conditions such as type 2 diabetes, has been recommended for black African, African–Caribbean and Asian (South Asian and Chinese) groups.

Alcohol consumption

One unit is 10 ml or 8 g of pure alcohol. This equals one 5 ml single measure of whiskey (alcohol by volume [ABV] 40%) or a third of a pint of beer (ABV 5–6%) or half a standard (175 ml) glass of wine (ABV 12%).

It is recommended that men do not regularly consume more than 3–4 units a day. It is recommended that women do not regularly consume more than 2–3 units per day. ‘Regularly’ means drinking this amount every day or most days of the week. ‘Increasing-risk drinking’ is defined as regularly consuming between 22 and 50 units per week (adult men) or between 15 and 35 units per week (adult women). ‘Higher-risk drinking’ is defined as consuming over 50 alcohol units per week (adult men) or over 35 units per week (adult women).

Body mass index

Body mass index (BMI) is commonly used to measure whether adults are a healthy weight, underweight, overweight or obese. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m^2).

Children who are overweight or obese

More than one classification system is used in the UK to define whether children are overweight or obese. The National Child Measurement Programme for primary care states that body mass index (BMI) should be plotted onto a gender-specific BMI chart for children (UK 1990 chart for children aged over 4 years). Children over the 85th centile, and on or below the 95th centile, are categorised as overweight. Children over the 95th centile are classified as obese. Other surveys, such as the Health Survey for England also use this system. In clinical practice, however, the 91st and 98th centiles may be used to define ‘overweight’ and ‘obesity’ respectively. Children on or above the 98th centile may also be described as very overweight. See the National Obesity Observatory's [A simple guide to classifying body mass index in children](#).

Dietary habits

This includes the food and drink (including alcoholic drinks) consumed, energy and nutrient intake, portion size and the pattern and timing of eating.

Energy balance

Energy balance is when energy intake from all food and drink (measured as calories or kilojoules) matches energy used for all bodily functions and physical activity. If energy intake is higher than energy used, a person will gain weight. If energy intake is less than energy used, a person will lose weight.

Energy density

Total energy content (kJ) divided by total weight (grams). Energy density can be calculated for individual foods, drink or for dietary intake as a whole. Lower energy dense foods, drinks or meals provide fewer calories per gram than higher energy dense foods, drinks or meals.

Lifestyle weight management

Lifestyle weight management programmes for people who are overweight or obese are multi-component programmes that aim to reduce a person's energy intake and help them to be more physically active by changing their behaviour. They may include weight management programmes, courses or clubs that:

- accept people through self-referral or referral from a health or social care practitioner
- are provided by the public, private or voluntary sector
- are based in the community, workplaces, primary care or online.

Although local definitions vary, these are usually called tier 2 services and are just part of a comprehensive approach to preventing and treating obesity.

Mediterranean diet

A diet that typically includes higher than average amounts of fruit, vegetables, legumes, olive oil, nuts and fish; moderate amounts of wine; and lower than average amounts of meat and dairy, and saturated fats.

Moderate-to-vigorous physical activity

Moderate-to-vigorous physical activity needs a large amount of effort, causes rapid breathing and a substantial increase in heart rate. Examples include: jogging; energetic dancing; heavy gardening; playing badminton, tennis or football; fast cycling; or walking briskly up a hill.

Non-nutritive sweetener

Non-nutritive sweeteners give food and drinks a sweet taste but include no (or virtually no) energy and no other nutrients. Non-nutritive sweeteners are sometimes called low calorie, artificial or non-caloric sweeteners.

Physical activity

The full range of human movement, from competitive sport and exercise to active hobbies, walking, cycling and the other physical activities involved in daily living, such as walking up stairs, gardening and housework.

Recommended level of physical activity

The Chief Medical Officers for England, Wales, Scotland and Northern Ireland 2011 report sets out physical activity targets for different groups. For adults: 'over a week, activity should add up to at least 150 minutes (2½ hours) of moderate-intensity activity, in bouts of 10 minutes or more'. One way to approach this is to do 30 minutes on at least 5 days a week.

Children and young people should take part in moderate- to vigorous-intensity physical activity for at least 60 minutes and up to several hours every day.

Weight maintenance

The maintenance of a specific weight (whether or not weight has been lost).

Weight trajectory

A weight trajectory refers to a general pattern of weight gain or weight loss over many years.

7 References

Golubic R, Ekelund U, Winjindaele K et al. (2013). [Rate of weight gain predicts change in physical activity levels: a longitudinal analysis of the EPIC-Norfolk cohort](#) International Journal of Obesity 37: 4040–9.

Prentice AM and Jebb SA (2001). [Beyond body mass](#) Obesity Reviews 2 (3): 141–7.

8 Summary of the methods used to develop this guideline

Introduction

The reviews, primary research, commissioned reports and economic modelling report include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the Public Health Advisory Committee (PHAC) meetings provide further detail about the Committee’s interpretation of the evidence and development of the recommendations.

Guideline development

The stages involved in developing public health guidelines are outlined in the box below.

1. Draft scope released for consultation
2. Stakeholder comments used to revise the scope

3. Final scope and responses to comments published on website
4. Evidence reviews and economic modelling undertaken and submitted to PHAC
5. PHAC produces draft recommendations
6. Draft guideline (and evidence) released for consultation
7. PHAC amends recommendations
8. Final guideline published on website
9. Responses to comments published on website

Key questions

The key questions were established as part of the [scope](#). They formed the starting point for the reviews of evidence and were used by the PHAC to help develop the recommendations. The overarching questions were:

Question 1: What individually modifiable behaviours may help children and young people to maintain a healthy weight or prevent excess weight gain?

Question 2: What individually modifiable behaviours may help adults to maintain a healthy weight or prevent excess weight gain?

Question 3: What are the most effective ways to communicate information to children, young people and adults about individually modifiable behaviours to help maintain a healthy weight or prevent excess weight gain?

These questions were made more specific for each review.

Reviewing the evidence

Effectiveness review

One [review of effectiveness](#) was conducted: Evidence review 1: 'An evidence review of modifiable diet and physical activity components and associated behaviours'.

Identifying the evidence

Several databases were searched in November 2013 for systematic reviews from 2005. See [Evidence review 1: an evidence review of modifiable diet and physical activity components and associated behaviours](#).

Key websites were also searched for reports produced by governments, academics and industry. In addition, several databases were searched for primary studies where gaps in the evidence had been identified by systematic reviews.

Selection criteria

Studies were included in the effectiveness review if:

- they were high quality systematic reviews
- they were undertaken among a general population
- they considered the association between an individually modifiable behaviour and the maintenance of a healthy weight or the prevention of weight gain.
- they were published in English
- they were primary studies that considered the association between a particular factor (meal planning, holiday weight gain and standing) and the maintenance of a healthy weight or the prevention of weight gain.

Because of the number of reviews meeting the inclusion criteria, reviews were prioritised for full consideration in the final evidence review based on the quality of the review, the publication date, the ability to address the factors being considered and the ability to add nuance to existing recommendations.

Studies were excluded if:

- the interventions were undertaken in a particular setting
- they focused only on people who were overweight or obese with an associated medical condition
- they were non-systematic reviews.

See each review for details of the inclusion and exclusion criteria.

Other reviews

One review of qualitative evidence was conducted. See [evidence review 2: Qualitative evidence review of the most acceptable ways to communicate information about individually modifiable behaviours to help maintain a healthy weight or prevent excess weight gain](#).

Identifying the evidence

Several databases were searched in February 2014 for qualitative evidence published after 2000. See [evidence review 2: Qualitative evidence review of the most acceptable ways to communicate information about individually modifiable behaviours to help maintain a healthy weight or prevent excess weight gain](#).

Selection criteria

Studies were included in the review if:

- they were primary UK-based qualitative studies
- they were systematic reviews of qualitative studies (UK or non UK)
- they were full text articles published in English after the year 2000.

Studies were excluded if:

- they did not address the questions outlined in the scope
- they addressed the treatment of obesity or management of medical conditions related to weight status.

Quality appraisal

Included systematic reviews were assessed for methodological rigour and quality using the NICE systematic review checklist and the [Critical Appraisal](#)

[Skills Programme \(CASP\)](#) systematic review quality checklist. Primary studies were assessed using the appropriate NICE checklist, as set out in [Methods for the development of NICE public health guidance](#). Each study was graded (++, +, –) to reflect the risk of potential bias arising from its design and execution.

Study quality

++ All or most of the checklist criteria have been fulfilled. Where they have not been fulfilled, the conclusions are very unlikely to alter.

+ Some of the checklist criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are unlikely to alter the conclusions.

– Few or no checklist criteria have been fulfilled. The conclusions of the study are likely or very likely to alter.

The evidence was also assessed for its applicability to the areas (populations, settings, interventions) covered by the scope of the guideline. Each evidence statement concludes with a statement of applicability (directly applicable, partially applicable, not applicable).

Summarising the evidence and making evidence statements

The review data were summarised in evidence tables (see the reviews in [Supporting evidence](#)).

The findings from the evidence review were synthesised and used as the basis for a number of evidence statements relating to each key question. The evidence statements were prepared by Bazian Ltd (see [Supporting evidence](#)). The statements reflect their judgement of the strength (quality, quantity and consistency) of evidence and its applicability to the populations and settings in the scope.

Cost effectiveness

NICE prepared a document on the [Maintenance of a healthy weight and prevention of weight gain in children and adults. Cost effectiveness considerations from a population modelling viewpoint](#) instead of a review of

economic evaluations and a modelling report. A modelling report was not considered necessary given that the cost effectiveness of brief advice can be inferred from the estimates of cost effectiveness from previous modelling exercises of relevance to healthy weight, weight gain, overweight and obesity carried out for NICE in recent years. The lead author of the cost effectiveness report for this guidance was Alastair Fischer.

How the PHAC formulated the recommendations

At its meetings in April and June 2014, the Public Health Advisory Committee (PHAC) considered the evidence and cost effectiveness to determine:

- whether there was sufficient evidence (in terms of strength and applicability) to form a judgement
- where relevant, whether (on balance) the evidence demonstrates that the intervention, programme or activity can be effective or is inconclusive
- where relevant, the typical size of effect
- whether the evidence is applicable to the target groups and context covered by the guideline.

The PHAC developed recommendations through informal consensus, based on the following criteria:

- Strength (type, quality, quantity and consistency) of the evidence.
- The applicability of the evidence to the populations/settings referred to in the scope.
- Effect size and potential impact on the target population's health.
- Impact on inequalities in health between different groups of the population.
- Equality and diversity legislation.
- Ethical issues and social value judgements.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of harms and benefits.
- Ease of implementation and any anticipated changes in practice.

Where evidence was lacking, the PHAC also considered whether a recommendation should only be implemented as part of a research programme.

Where possible, recommendations were linked to evidence statements (see [The evidence](#) for details). Where a recommendation was inferred from the evidence, this was indicated by the reference 'IDE' (inference derived from the evidence).

9 The evidence

Introduction

The [evidence statements](#) from 2 reviews are provided by Bazian Ltd.

This section lists how the evidence statements link to the recommendations and sets out a brief summary of findings from the economic analysis.

How the evidence link to the recommendations

The evidence statements are short summaries of evidence, in a [review, report or paper](#) (provided by an expert in the topic area). Each statement has a short code indicating which document the evidence has come from.

Evidence statement number 1.1 indicates that the linked statement is numbered 1 in the review 1. **Evidence statement number 2.1** indicates that the linked statement 1 in the review 2. Where a recommendation is not directly taken from the evidence statements, but is inferred from the evidence, this is indicated by IDE (inference derived from the evidence).

Where the Public Health Advisory Committee (PHAC) has considered other evidence, it is linked to the appropriate recommendation below. It is also listed in the additional evidence section below.

Recommendation 1: evidence statements 2.2, 2.3, 2.4, 2.5, 2.6, 2.9, 2.10, 2.11; IDE

Recommendation 2: evidence statements 1.30, 1.31, 1.40, 1.51, 2.7, 2.8;
IDE

Recommendation 3: evidence statements 1.3, 1.4, 1.5, 1.7, 1.8, 1.9, 1.11,
1.13, 1.15

Recommendation 4: evidence statements 1.17, 1.18, 1.19, 1.20, 1.22, 1.23,
1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, 1.33, 1.34, 1.35, 1.36, 1.37, 1.38,
1.39, 1.40, 1.41, 1.42, 1.43, 1.44, 1.45, 1.48, 1.49, 1.50; IDE

Recommendation 5: evidence statements 1.21; IDE

Recommendation 6: evidence statements 1.40, 1.41, 1.46, 1.47, 2.6, 2.8;
IDE

Recommendation 7: evidence statements 1.52; IDE

Recommendation 8: evidence statements 2.8; IDE

Economic modelling

A paper entitled [Maintenance of a healthy weight and prevention of weight gain in children and adults. Cost effectiveness considerations from a population modelling viewpoint](#) was prepared by NICE instead of a review of economic evaluations and a modelling report.

The paper was based on a conceptual model relating to the weight changes of age and sex cohorts of the population over time, a format developed for modelling exercises in 3 previous NICE guidelines:

- [Lifestyle weight management in adults](#) (2014)
- [Lifestyle weight management in children and young people](#) (2013)
- [Prevention of type 2 diabetes in adults](#) (2011)

From the modelling undertaken in these reports, and given the absence of any substantive new data, brief advice interventions were inferred to be cost

effective when their low cost was considered against the cost of weight management interventions.

10 Gaps in the evidence

The Public Health Advisory Committee (PHAC) identified a number of gaps in the evidence related to the programmes under examination based on an assessment of the evidence. These gaps are set out below.

1. There is a lack of systematic reviews of cohort or trial data considering the complexity of a combination of dietary, physical activity and other lifestyle behaviours on weight outcomes.

(Source: Evidence review 1)

2. There is a lack of systematic reviews of cohort or trial data considering the complexity of a combination of dietary, physical activity and other lifestyle behaviours on weight outcomes for different population groups.

(Source: Evidence review 1)

3. There is a lack of systematic reviews of trial data on modifiable behaviours and weight outcomes, for which cohort evidence is available (such as sleep or breakfast consumption).

(Source: Evidence review 1)

4. There is a lack of systematic reviews of cohort or trial data considering the impact of inequalities (such as socioeconomic status or ethnicity) on any associations between modifiable behaviours and weight outcomes for different population groups.

(Source: Evidence review 1)

5. There is a lack of systematic reviews of cohort or trial data considering the tracking of modifiable behaviours and weight outcomes through the lifecourse for different population groups.

(Source: Evidence review 1)

6. There is a lack of systematic reviews of cohort or trial data considering associations between dietary patterns (such as eating frequency, speed, settings, meal planning) and weight outcomes.

(Source: Evidence review 1)

7. There is a lack of systematic reviews of cohort or trial data considering associations between sedentary behaviours and incidental activities (such as time spent standing) and weight outcomes.

(Source: Evidence review 1)

8. There is a lack of systematic reviews on the optimal method and frequency of self-monitoring of behaviours among non-obese, general population groups.

(Source: Evidence review 1)

9. There is a lack of UK-based qualitative data considering the acceptability of messages for different population groups on specific modifiable behaviours that may help individuals maintain a healthy weight or prevent excess weight gain.

(Source: Evidence review 2)

11 Membership of the Public Health Advisory Committee and the NICE project team

Public Health Advisory Committee A

NICE has set up several Public Health Advisory Committees (PHACs). These standing committees consider the evidence and develop public health guidelines. Membership is multidisciplinary, comprising academics, public health practitioners, topic experts and members of the public. They may come from the NHS, education, social care, environmental health, local government or the voluntary sector. The following are members of PHAC A:

Chair

Susan Jebb

Professor of Diet and Population Health, University of Oxford

Core members

Amanda Sowden

Deputy Director, Centre for Reviews and Dissemination, University of York

Chris Packham

Associate Medical Director, Nottinghamshire Healthcare NHS Trust

Joyce Rothschild

Independent Education Consultant

Lucy Yardley

Professor of Health Psychology, University of Southampton

Mireia Jofre Bonet

Professor in Economics, City University London

Toby Prevost

Professor of Medical Statistics, King's College London

Alison Lloyd

Community Member

Topic members

Peymane Adab

Professor of Public Health and Epidemiology, University of Birmingham

Louisa Ells

Reader in Public Health and Obesity, Teesside University and Specialist
Advisor to Public Health England Obesity Knowledge and Intelligence Team

Nick Finer

Professor, Consultant Endocrinologist and Bariatric Physician, University
College London Hospitals

Laura McGowan

Research Fellow, Institute for Global Food Security, Queen's University,
Belfast

Bimpe Oki

Consultant in Public Health, Lambeth and Southwark

Sara West-Sadler

Community Member

Expert co-optees to PHAC

Nick Cavill

Specialist Advisor, Public Health England Obesity Team

NICE project team

Mike Kelly

CPH Director

Kay Nolan

Associate Director

Adrienne Cullum

Lead Analyst

Rachel Kettle

Analyst

Patti White

Analyst

Alastair Fischer

Technical Adviser Health Economics

Victoria Axe (until May 2014)

Project Manager

Rupert Franklin (from June 2014)

Project Manager

Denise Jarrett

Coordinator

Sue Jelley (March 2014)

Senior Editor

Jaimella Espley (May 2014 onwards)

Senior Editor

Susie Burlace

Editor

About this guideline

What does this guideline cover?

This guideline is a partial update of ‘Obesity: the prevention, identification, assessment and management of overweight and obesity in children and adults’, NICE clinical guideline 43 (2006). It will replace recommendations 1.1.1.1 to 1.1.1.6 in section 1.1.1.

This guideline will focus on individually modifiable behaviours that may help children or adults maintain a healthy weight or prevent excess weight gain. It will not cover interventions to:

- prevent children or adults becoming overweight or obese
- identify or assess people who are overweight or obese
- manage the weight of people who are overweight or obese.

(See [Related NICE guidance](#) for other recommendations that may be relevant to identifying, preventing and management of overweight and obesity.)

The absence of any recommendations on individually modifiable behaviours that fall within the scope of this guideline is a result of lack of evidence. It should not be taken as a judgement on whether they are cost effective.

How was this guideline developed?

The recommendations are based on the best available evidence. They were developed by the Public Health Advisory Committee (PHAC).

Members of the PHAC are listed in [Membership of the Public Health Advisory Committee and the NICE project team](#).

For information on how NICE public health guidelines are developed, see the NICE public health guideline [process](#) and [methods](#) guides.

What evidence is the guideline based on?

The [evidence](#) that the PHAC considered included:

- Evidence review/s:
 - Review 1 ‘An evidence review of modifiable diet and physical activity components, and associated behaviours’, was carried out by Bazian Ltd. The principal authors were: Alicia White, Sarah Caton, Rob Davies, Alex Bhatti, Laura Johnson, Simon Sebire.
 - Review 2 ‘Qualitative evidence review of the most acceptable ways to communicate information about individually modifiable behaviours to help maintain a healthy weight or prevent excess weight gain’ was carried out by Bazian Ltd. The principal authors were: Rob Davies, Alicia White, Sarah Caton, Alex Bhatti, Laura Johnson, Simon Sebire.
- Maintenance of a healthy weight and prevention of weight gain in children and adults. Cost effectiveness considerations from a population modelling viewpoint produced by the NICE team.

In some cases the evidence was insufficient and the PHAC has made recommendations for future research. For the research recommendations and gaps in research, see [Recommendations for research](#) and [Gaps in the evidence](#).

Status of this guideline

This is a draft guideline. The recommendations made in section 1 are provisional and may change after consultation with [stakeholders](#).

This document does not include all sections that will appear in the final guideline. The stages NICE will follow after consultation are summarised below.

- The Committee will meet again to consider the comments, reports and any additional evidence that has been submitted.
- After that meeting, the Committee will produce a second draft of the guideline.
- The draft guideline will be signed off by the NICE Guidance Executive.

The key dates are:

- Closing date for comments: 4 November 2014.
- Next PHAC meeting: 19 November 2014.

The guideline will partially update NICE clinical guideline 43 on [Obesity - the prevention, identification, assessment and management of overweight and obesity in adults and children](#). (For further details, see [Related NICE guidance](#)).

The recommendations should be read in conjunction with existing NICE guidance unless explicitly stated otherwise. They should be implemented in light of duties set out in the [Equality Act 2010](#).

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Implementation

NICE guidelines can help:

- Commissioners and providers of NHS services to meet the requirements of the [NHS outcomes framework 2013–14](#). This includes helping them to deliver against domain 1: preventing people from dying prematurely.
- Local health and wellbeing boards to meet the requirements of the [Health and Social Care Act \(2012\)](#) and the [Public health outcomes framework for England 2013–16](#).
- Local authorities, NHS services and local organisations determine how to improve health outcomes and reduce health inequalities during the joint strategic needs assessment process.

NICE will develop tools to help organisations put this guideline into practice. Details will be available on our website after the guideline has been issued.

Updating the recommendations

This section will be completed in the final document.