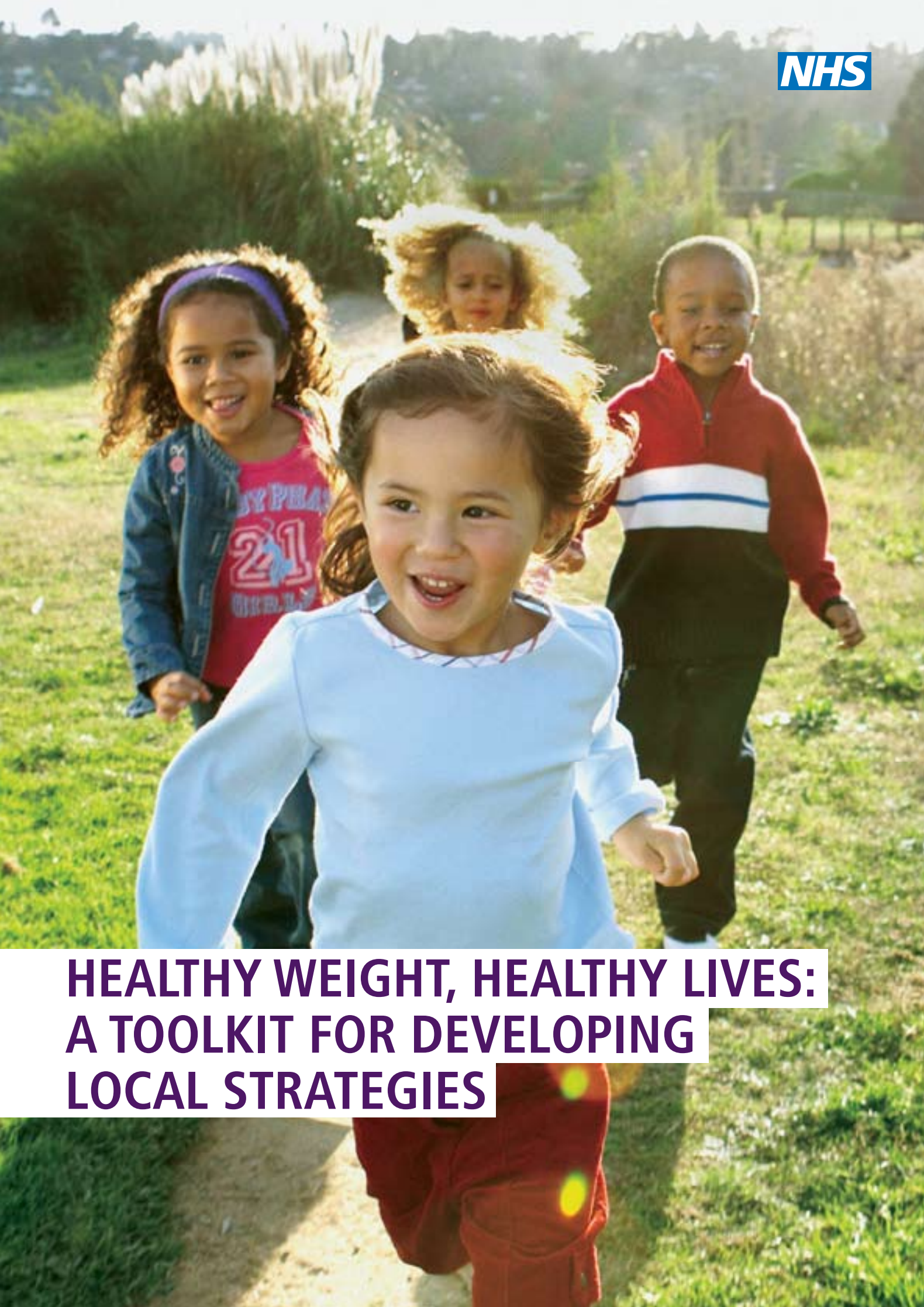


The background of the entire page is a photograph of four young children running through a grassy park. In the foreground, a girl with brown hair, wearing a light blue long-sleeved shirt, is running towards the camera with a joyful expression. Behind her to the left, another girl with curly hair and a purple headband is running. To the right, a boy in a red and white striped jacket is running. In the background, another child is visible. The scene is brightly lit, suggesting a sunny day, with soft shadows on the grass.

HEALTHY WEIGHT, HEALTHY LIVES: A TOOLKIT FOR DEVELOPING LOCAL STRATEGIES

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HEALTHY WEIGHT, HEALTHY LIVES: A TOOLKIT FOR DEVELOPING LOCAL STRATEGIES

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Produced by the **National Heart Forum** in association with the **Faculty of Public Health**, the **Department of Health**, the **Department for Children, Schools and Families** and **Foresight, Government Office for Science**

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This toolkit is intended as a resource to help those working at local level to plan, coordinate and implement comprehensive strategies to prevent and manage overweight and obesity. It focuses on multi-sector partnership approaches. Although specifically tailored for England, much of the information and guidance in the toolkit applies equally to Scotland, Wales and Northern Ireland.

This toolkit and updates can be downloaded from www.heartforum.org.uk or www.fph.org.uk or www.dh.gov.uk. These websites provide up-to-date information about developments in the area of overweight and obesity.

Foreword

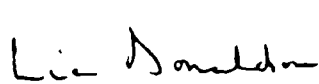
We are all aware from media reports that overweight and obesity are on the increase. In England almost two-thirds of adults and a third of children are either overweight or obese. Future trends provided by the Government Office for Science's Foresight make it clear that without effective action this could rise to almost nine in ten adults and two-thirds of children being overweight or obese by 2050.

This is why tackling overweight and obesity is a national government priority. The national obesity strategy, *Healthy Weight, Healthy Lives: A cross-government strategy for England*,¹ set out the first steps to meeting the challenge of excess weight in the population with a new ambition: *to be the first major country to reverse the rising tide of obesity and overweight in the population by ensuring that everyone is able to maintain a healthy weight. Our initial focus will be on children; by 2020, we aim to reduce the proportion of overweight and obese children to 2000 levels.*

However, this ambition will only be met if the whole of society is engaged. Primary care trusts and local authorities will need to play a key role in empowering their communities to succeed in tackling the obesity epidemic. The Government has already provided local areas with guidance on what they can do to promote healthy weight and tackle obesity. *Healthy Weight, Healthy Lives: Guidance for local areas*² sets out a framework that primary care trusts and local authorities can use to develop local plans. This toolkit, *Healthy Weight, Healthy Lives: A toolkit for developing local strategies*, will provide more detailed support for local areas and will help you to consider the best approaches to tackling overweight and obesity in your local area, taking into account the specific needs of your local population and the socioeconomic and psychological experiences they may face.

This is a fast-moving arena. That is why we are committed to ensuring that local areas are kept up to date with the latest developments by regular online updates. We hope that the toolkit will help you to develop the most appropriate and successful strategy for the needs of your community.

Let's make England the first country to successfully curb the obesity epidemic.



Sir Liam Donaldson
Chief Medical Officer



Professor Klim McPherson
Chair
National Heart Forum



Professor Alan Maryon-Davis
President
Faculty of Public Health

Executive summary

Nearly a quarter of people in England are obese.³ Unless we take effective action, it has been estimated that about one-third of adults and one-fifth of children aged 2-10 years will be obese by 2010,⁴ and nearly 60% of the UK population could be obese by 2050.⁵ This could mean a doubling in the direct healthcare costs of overweight and obesity, with the wider costs to society and business reaching £49.9 billion by 2050.⁵

The rapid increase in levels of overweight and obesity cannot be attributed to genetic changes as it has occurred in too short a time period. This means that the growing health problems are likely to be caused by behavioural and environmental changes in our society. Added to this, overweight and obesity are health inequalities issues, with people from the lowest socioeconomic groups most at risk.

This toolkit has been designed to follow on from *Healthy Weight, Healthy Lives: Guidance for local areas*² and to provide further support for developing a local strategy to tackle overweight and obesity. **It is primarily aimed at commissioners of public health services in both primary care trusts and local authorities.** The document is not compulsory but is intended to help local multi-agency teams – including public health, health promotion and primary care professionals, and strategic planners in both the NHS and local government in England – to develop and implement strategies and action plans to tackle the year-on-year rise of overweight and obesity through prevention and management.

The toolkit provides a comprehensive collection of information and tools to assist with delivering current national and local policies. It purposefully does not provide detailed information about care and treatment of overweight and obesity, but rather offers signposts to well established and comprehensive material covered elsewhere. The toolkit complements the National Institute for Health and Clinical Excellence (NICE) clinical guideline *Obesity: The prevention, identification, assessment and management of overweight and obesity in adults and children*,⁶ the Foresight programme *Tackling obesities: Future choices*,⁵ and the Government's obesity strategy, *Healthy Weight, Healthy Lives: A cross-government strategy for England*.¹ It supersedes *Lightening the Load: Tackling overweight and obesity. A toolkit for developing local strategies to tackle overweight and obesity in children and adults*.⁷

The toolkit is designed to equip local action teams with useful information and tools to meet and address the challenge of tackling overweight and obesity. It has five sections:

Section A Overweight and obesity: the public health problem

This section focuses on the public health case for developing a local overweight and obesity strategy. It discusses the terms overweight and obesity; provides data on the prevalence and trends of overweight and obesity in children and adults; discusses the health risks of excess weight and the health benefits of losing excess weight; gives current and predicted future direct and indirect costs of overweight and obesity; and finally examines the causes of overweight and obesity as detailed by Foresight.⁵

Section B Tackling overweight and obesity

This section of the toolkit looks at ways of tackling overweight and obesity. It focuses on the five key themes highlighted in *Healthy Weight, Healthy Lives: A cross-government strategy for England*¹ as the basis for tackling excess weight:

- **Children: healthy growth and healthy weight** focuses on the importance of prevention of obesity from childhood. It looks at recommended government action during the following life stages – pre-conception and antenatal care, breastfeeding and infant nutrition, early years and schools. Importantly, it also discusses the psychological issues that impact on overweight and obesity.
- **Promoting healthier food choices** details the government recommendations for promoting a healthy, balanced diet to prevent overweight and obesity. It provides standard population dietary recommendations and *The eatwell plate* recommendations for individuals over the age of five years.
- **Building physical activity into our lives** provides details of government recommendations for active living throughout the life course. It focuses on action to prevent overweight and obesity by everyday participation in physical activity, the promotion of a supportive built environment and the provision of advice to decrease sedentary behaviour.
- **Creating incentives for better health** focuses on action to maintain a healthy weight in the workplace by the provision of healthy eating choices and opportunities for physical activity. It provides details of recommendations from NICE guidance.⁶
- **Personalised support for overweight and obese individuals** focuses on recommended government action to manage overweight and obesity through weight management services (NHS and non-NHS based). It provides information on clinical guidance and examples of appropriate services for children and adults, and also refers commissioners to tools from section E which can be shared with their local healthcare professionals.

Section C Developing a local overweight and obesity strategy

This section of the toolkit provides a practical guide to help commissioners in primary care trusts (PCTs) and local authorities develop a local strategy that fits into the framework for local action published in *Healthy Weight, Healthy Lives: Guidance for local areas*.² The framework is split into five sections:

- **Understanding the problem in your area and setting local goals** outlines how to estimate local prevalence of obesity among children and adults, how to estimate the local cost of obesity and how to identify priority groups and set local goals.
- **Local leadership** outlines the importance of a multi-agency approach to tackling obesity. It also discusses the significance of a senior-level lead to coordinate activity and details how to bring partners together through a sub-committee or partnership board.
- **Choosing interventions** provides details on how to plan specific interventions to achieve local targets of reducing overweight and obesity by changing families' attitudes and behaviours. It also provides details on how to commission services.
- **Monitoring and evaluation** outlines the importance of monitoring and evaluation and details the key elements of a successful evaluation strategy.
- **Building local capabilities** provides details on how to commission training to support staff to promote physical activity, good nutrition and the benefits of a healthy weight.

Importantly, this section explains how the tools in sections D and E fit within this framework.

Section D Resources for commissioners

This section contains 15 tools for commissioners of public health services in primary care trusts and local authorities developing local plans for tackling child obesity. It follows the framework for local action outlined in *Healthy Weight, Healthy Lives: Guidance for local areas*.²

Section E Resources for healthcare professionals

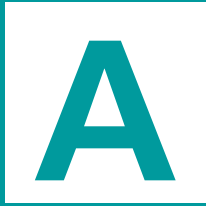
This section contains tools that public health commissioners can provide to healthcare professionals. It has been divided into three sub-sections: tools to help healthcare professionals assess weight problems, tools to help them raise the issue of weight with their patients, and tools to help professionals gain access to further resources.



KEY FACTS

Overweight and obesity in England

- Overweight and obesity increase the risk of a wide range of diseases and illnesses, including coronary heart disease and stroke, type 2 diabetes, high blood pressure, metabolic syndrome, osteoarthritis and cancer.^{5, 6}
- Obesity reduces life expectancy on average by 11 years (this is an average for white men and women who have a BMI of 45kg/m² or over from between 20 and 30 years of age) and is responsible for 9,000 premature deaths a year.⁸
- The prevalence of obesity has trebled since the 1980s.^{8, 9} In 2006, 23.7% of men and 24.2% of women were obese and almost two-thirds of all adults (61.6%) – approximately 31 million adults – were either overweight or obese.¹⁰ (For definitions of 'overweight' and 'obese', see page 8.)
- Overweight and obesity are also increasing in children. The most recent figures (2006) show that, among children aged 2-15, almost one-third – nearly 3 million – are overweight (including obese) (29.7%) and approximately one-sixth – about 1.5 million – are obese (16%).¹¹
- It has been estimated that, if current trends continue, about one-third of adults and one-fifth of children aged 2-10 years will be obese by 2010,⁴ and 60% of adult men, 50% of adult women and about 25% of all children under 16 could be obese by 2050.⁵
- There are social group differences in obesity, particularly for women and children – 18.7% of women in managerial and professional households are obese compared with 29.1% in routine and semi-routine households.¹² A similar pattern is seen among children, with 12.4% in managerial and professional households classified as obese compared with 17.1% in semi-routine households.³
- Most evidence suggests that the main reason for the rising prevalence of overweight and obesity is a combination of less active lifestyles and changes in eating patterns.⁸
- Overweight and obesity have a substantial human cost by contributing to the onset of disease and premature death. They also have serious financial consequences for the NHS and for the economy. In 2007, it was estimated that the total annual cost to the NHS was £4.2 billion, and to the wider economy £15.8 billion. By 2050, it has been estimated that overweight and obesity could cost the NHS £9.7 billion and the wider economy £49.9 billion (at 2007 prices).⁵



Overweight and obesity: the public health problem

This section of the toolkit focuses on the public health case for developing a local overweight and obesity strategy. It discusses the terms overweight and obesity; provides data on the prevalence and trends of overweight and obesity in children and adults; discusses the health risks of excess weight and the health benefits of losing excess weight; gives current and predicted future direct and indirect costs of overweight and obesity; and examines the causes of overweight and obesity as detailed by Foresight.⁵

What are 'overweight' and 'obesity'?

Overweight and obesity are terms used to describe increasing degrees of excess body fatness.

Energy imbalance – the cause of overweight and obesity

Essentially, excess weight is caused by an imbalance between 'energy in' – what is consumed through eating – and 'energy expenditure' – what is used by the body. Hence it is an individual's biology (eg genetics and metabolism) and/or behaviour (eating and physical activity habits) that are primarily responsible for maintaining a healthy body weight. However, there are also significant external influences such as environmental and social factors (eg changes in food production, motorised transport and work/home lifestyle patterns) that predispose body weight. Thus, the causes of obesity can be grouped into four main areas: human biology, culture and individual psychology (behaviour), the food environment and the physical environment.⁵ (More information on this is provided on page 30.)

Effects of excess weight on health

Overweight and obesity can lead to increasingly adverse effects on health and wellbeing. Potential problems include respiratory difficulties, chronic musculoskeletal problems, depression, relationship problems and infertility. The more life-threatening problems fall into four main areas: cardiovascular disease problems; conditions associated with insulin resistance such as type 2 diabetes; certain types of cancers, especially the hormonally-related and large bowel cancers; and gallbladder disease.¹³ (For more on the conditions associated with obesity, see page 23.) The likelihood of developing life-threatening problems such as type 2 diabetes rises steeply with increasing body fatness. Hence, there is a need to identify the ranges of weight at which health risks to individuals increase, using simple assessment methods such as Body Mass Index (BMI).

Measuring excess weight

Overweight and obesity in children and adults are commonly assessed by using Body Mass Index (BMI), which is defined as the person's weight in kilograms divided by the square of their height in metres (kg/m²). However, in adults the waist circumference measurement is also used to assess a patient's abdominal fat content or 'central' fat distribution.



Tools E3 and E4 provide further detailed information about the various methods for measuring and assessing overweight and obesity in adults and children.

Prevalence and trends of overweight and obesity

Prevalence of overweight and obesity among adults



KEY FACTS

Prevalence

- According to the latest figures (2006), 23.7% of men and 24.2% of women are obese and almost two-thirds of all adults (61.6%) – approximately 31 million adults – are either overweight or obese. The proportion who are severely (morbidly) obese (with a BMI over 40kg/m²) is 1.5% in men and 2.7% in women.¹⁰

Age

- In both men and women, mean BMI (kg/m²) generally increases with age, apart from in the oldest age group (those aged 75 plus).¹⁰
- In both men and women aged 16-74 years, prevalence of raised waist circumference increases with age.¹⁰

Gender

- Men have a higher mean BMI than women (27.2kg/m² in comparison to 26.8kg/m²).¹⁰
- A greater percentage of men than women are either overweight or obese (67.1% of men compared to 56.1% of women).¹⁰
- A larger proportion of men (43.4%) are overweight than women (31.9%).¹⁰
- There is very little difference in the proportion of men and women who are obese (23.7% versus 24.2% respectively).¹⁰
- Approximately twice as many women (2.7%) as men (1.5%) are severely obese.¹⁰
- Raised waist circumference is more prevalent in women (41%) than in men (32%).¹⁰

Sociocultural patterns

- Overweight and obesity are more common in lower socioeconomic and socially disadvantaged groups, particularly among women.¹⁴
- Women's obesity prevalence is far lower in managerial and professional households (18.7%) than in households with routine or semi-routine occupations (29.1%).¹²
- The prevalence of morbid obesity (BMI over 40kg/m²) among women is also lower in managerial and professional households (1.6%) than in households with routine or semi-routine occupations (4.1%).¹²

Ethnic differences

- In women, the mean BMI is markedly higher in Black Caribbeans (28.0kg/m²) and Black Africans (28.8kg/m²) than in the general population (26.8kg/m²), and markedly lower in Chinese (23.2kg/m²).¹⁵
- In men, the mean BMI of those of Chinese (24.1kg/m²), Bangladeshi (24.7kg/m²) and Indian origin (25.8kg/m²) is significantly lower than that of the general population (27.1kg/m²).¹⁵
- The increase in waist circumference with age occurs in all ethnic groups for both men and women.¹⁵

Regional differences

- In both men and women, the prevalence of obesity is greatest in the West Midlands Government Office Region (GOR) (both 29%), and lowest in the London GOR (19% and 21% respectively). In women, the prevalence of morbid obesity is highest in the West Midlands GOR (4%). However, levels are consistent across the rest of England (ranging from 2% to 3%). In men, levels of morbid obesity are also consistent across England (range 1% to 2%).¹⁰
- The West Midlands GOR has the highest prevalence of overweight (including obese) in men and women (76% and 62% respectively). The London GOR has the lowest levels of overweight (including obese) in England (61% and 49% respectively).¹⁰
- The prevalence of overweight among men is greatest in the East of England GOR (48%), West Midlands GOR (47%) and South East GOR (46%). The lowest prevalence can be found in the North East GOR (35%). Among women, the East of England GOR has the highest prevalence of overweight (36%), and London has the lowest (28%).¹⁰

Prevalence of combined health risk associated with overweight and obesity*

- Among men, 20% are estimated to be at increased risk, 13% at high risk and 21% at very high risk of health problems associated with overweight and obesity. The equivalent percentages for women are 14% at increased risk, 16% at high risk and 23% at very high risk.¹⁰

Notes:

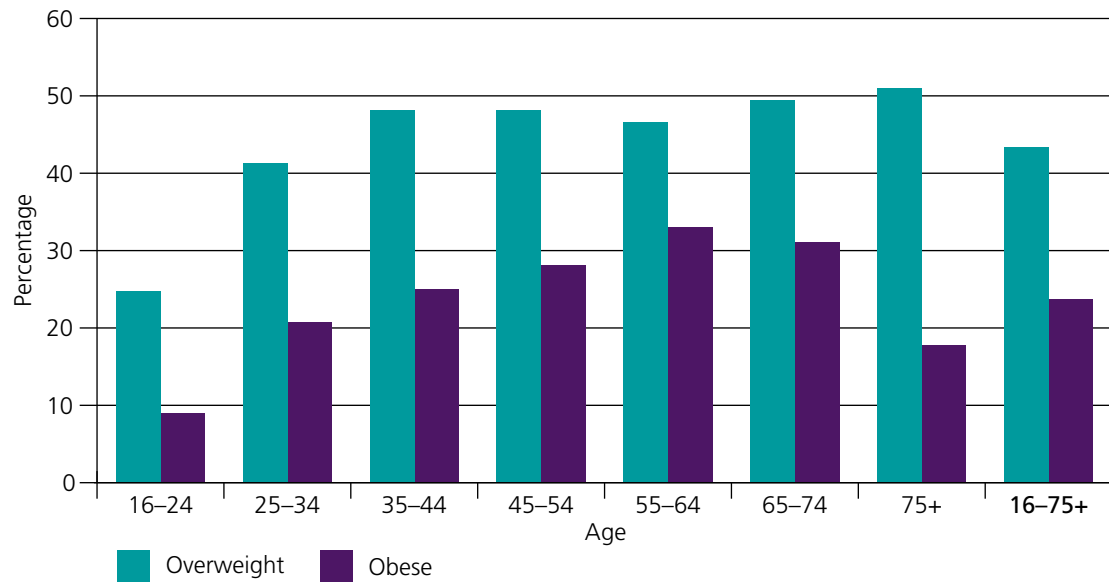
The Health Survey for England (HSE) figures are weighted to compensate for non-response. (Before the HSE 2003, data were not weighted for non-response.)

A raised waist circumference is defined as 102cm or more for men, and 88cm or more for women.¹²

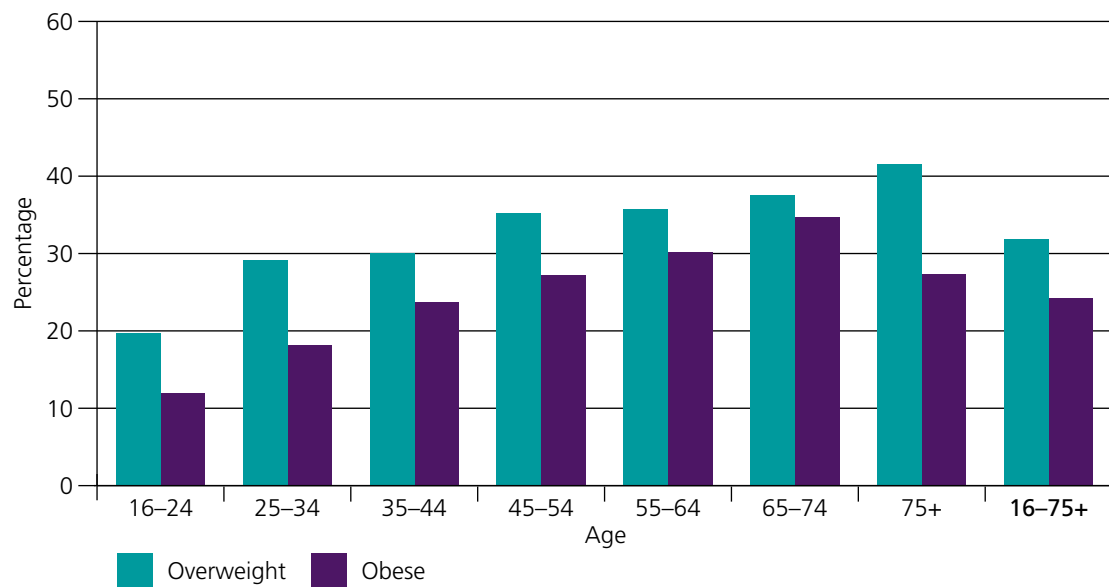
* NICE guidelines define low, high and very high waist measurements for men and women. A high or very high waist circumference is associated with increased health risks for those with a BMI below 35kg/m². Health risks are very high for those with a BMI of 35kg/m² or more with any waist circumference.⁶

Figure 1 Prevalence of overweight and obesity among adults, by age and sex, England, 2006

Men



Women



Note: Figure 1 uses the Health Survey for England figures which are weighted to compensate for non-response.

Source: Health Survey for England 2006¹⁰

Table 1 Prevalence of obesity and central obesity among adults aged 16 and over living in England, by ethnic group, 2003/2004

GENDER	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	General population (2003)
MEN							
Overweight (including obese)	67%	62%	53%	55%	44%	37%	67%
Obese (including severely obese)	25%	17%	14%	15%	6%	6%	23%
Severely obese	0%	0%	0%	1%	0%	0%	1%
Raised waist-hip ratio	25%	16%	38%	36%	32%	17%	33%
Raised waist circumference	22%	19%	20%	30%	12%	8%	31%
WOMEN							
Overweight (including obese)	65%	70%	55%	62%	51%	25%	57%
Obese (including severely obese)	32%	38%	20%	28%	17%	8%	23%
Severely obese	4%	5%	1%	2%	1%	0%	2%
Raised waist-hip ratio	37%	32%	30%	39%	50%	22%	30%
Raised waist circumference	47%	53%	38%	48%	43%	16%	41%

Note: The prevalence figures in this table are weighted to compensate for non-response in different groups.

Source: *Health Survey for England 2004. Volume 1: The health of minority ethnic groups*¹⁵ and *Health Survey for England 2003. Volume 2: Risk factors for cardiovascular disease*¹²

Trends in overweight and obesity among adults



KEY FACTS

- There has been a marked increase in the levels of obesity (BMI above 30kg/m²) among adults in England. The proportion of men classified as obese increased from 13.2% in 1993 to 24.9% in 2006 – a relative increase of 89%; and from 16.4% of women in 1993 to 25.2% in 2006 – a relative increase of 54%.¹⁰
- The prevalence of overweight including obesity has increased in men from 57.6% in 1993 to 69.5% in 2006 – a 21% increase – and among women from 48.6% to 58% – a 19% increase.¹⁰
- The proportion of men who are morbidly obese (BMI above 40kg/m²) rose from 0.2% in 1993 to 1.4% in 2006 – ie a seven-fold increase. For women it rose from 1.4% to 2.7% – ie it almost doubled.¹⁰
- Mean BMI increased by 1.5kg/m² in men and by 1.3kg/m² in women between 1993 and 2006.¹⁰

Note: For accuracy, unweighted figures have been used for time comparisons. (Before the Health Survey for England 2003, HSE data were not weighted for non-response.)

Future trends in overweight and obesity among adults^{5, 16}**KEY FACTS****Gender^a**

- By 2015, it has been estimated that 36% of men and 28% of women in England will be obese.
- By 2025, it has been estimated that 47% of men and 36% of women will be obese.
- By 2050, it has been estimated that 60% of men and 50% of women could be obese.
- The proportion of men having a healthy BMI (18.5-24.9kg/m²) has been estimated to decline from about 30% in 2004 to less than 10% by 2050.
- It is estimated that the proportion of women in the 'healthy weight' category (BMI 18.5-24.9kg/m²) will fall from about 40% in 2004 to approximately 15% by 2050.

Sociocultural patterns^{a, b}

- The prevalence of obesity among men in 2004 was about 18% in social class I and 28% in social class V. There is no evidence for a widening of social class difference by 2050 – it is estimated that, by 2050, 52% of men in social class I and 60% in social class V will be obese.
- For women, 10% in social class I and 25% in social class V were obese in 2004. It has been estimated that this gap will widen by 2050 with 15% in social class I and 62% in social class V being classified as obese.

Ethnic differences^{a, c}

- Black Caribbean, Bangladeshi and Chinese men are estimated to be less obese by 2050 (from 2006 to 2050: 18% to 3%, 26% to 17%, and 3% to 1% respectively).
- Black Caribbean and Chinese women are predicted to become less obese by 2050 (from 2006 to 2050: 14% to 1%, and 3% to 1% respectively).
- Black African, Indian and Pakistani men are estimated to be more obese by 2050 (from 2006 to 2050: 17% to 37%, 12% to 23%, and 16% to 50% respectively).
- Black African, Indian, Pakistani and Bangladeshi women are estimated to be more obese by 2050 (from 2006 to 2050: 30% to 50%, 16% to 18%, 22% to 50%, and 24% to 30% respectively).

Regional differences^a

- It is estimated that the incidence of obesity will generally be greater in the north of England than in the south-west of England.
- Among women in Yorkshire and Humberside, obesity levels are estimated to reach 65% by 2050 compared with the south-west of England where the predicted level is 7%, a reduction from 17% currently.
- Among men in Yorkshire and Humberside, West Midlands and the north-east of England, obesity levels are predicted to reach about 70% by 2050, compared with London where the predicted rise is to 38%.

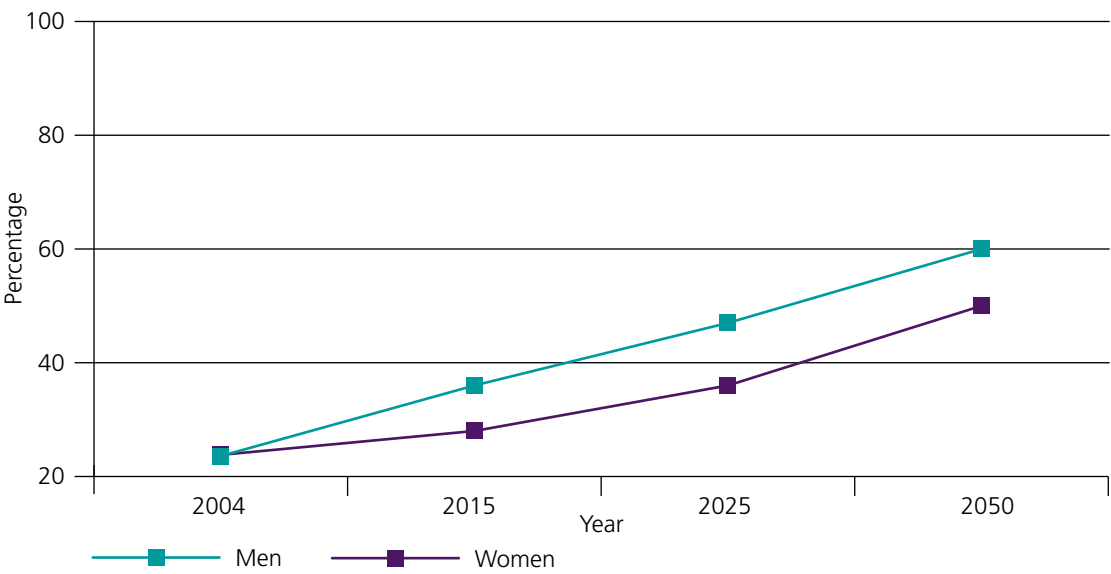
Notes:

a Future obesity trends have been extrapolated by Foresight using Health Survey for England unweighted data for 1994-2004. Although the 10-year dataset on which the extrapolations are built demonstrates clear and stable trends, predicted figures should be viewed with caution as confidence intervals (CIs) associated with these figures grow larger as one projects into the future.

b Social class (I-V) rather than socioeconomic category (professional/routine occupations) data were used by Foresight for time comparisons. Figures found elsewhere in this report are socioeconomic category data.

c Some sample sizes (ie Chinese and Bangladeshi) are very small, so extrapolations should be treated with particular caution.

Figure 2 Future trends in obesity among adults, 2004-2050



Note: The graph excludes confidence intervals (CIs), so the figures should be viewed with caution. CIs grow larger as one projects into the future. By 2050, the 95% CIs are frequently 10 or more percentage points. 2004 data are unweighted HSE data, for adults aged 16-75+ years. Estimated data for 2015-2050 (from Foresight) are for adults aged 21-60 years.

Source: Health Survey for England 2005;⁹ and Butland et al, 2007⁵

Prevalence of overweight and obesity among children aged 2-15 years

**KEY FACTS****Prevalence**

- The most recent figures (2006) show that, among children aged 2-15, almost one-third – nearly 3 million – are overweight (including obese) (29.7%) and approximately one-sixth – about 1.5 million – are obese (16%). The mean BMI (kg/m²) for children aged 0-15 is 18.4kg/m².¹¹

Age

- Among children aged 11-15 years, the prevalence of obesity (17.4%) and overweight (including obesity) (32.9%) is greater than among children aged 2-10 years (15.2% and 27.7% respectively).¹¹
- There is a marked difference in obesity levels for girls aged between 2-10 years (13.2%) and 11-15 years (17%). For boys, there is little difference (17.1% and 17.7% respectively).¹¹
- Boys and girls aged 11-15 years (boys 32.6%, girls 33.2%) have a greater prevalence of overweight (including obesity) than boys and girls aged 2-10 years (boys 29.3%, girls 25.9%).¹¹
- Between the ages of 2 and 15, the mean BMI (kg/m²) increases steadily with age.¹¹

Gender

- The mean BMI (kg/m²) for boys and girls aged 2-15 years is similar (18.3kg/m² and 18.5kg/m² respectively).¹¹
- A greater percentage of boys (17.3%) than girls (14.7%) aged 2-15 years are obese. But a similar proportion – around three in ten – of boys (30.6%) and girls (28.7%) are overweight (including obese).¹¹
- Among children aged 11-15 years, a similar percentage of boys and girls are overweight (including obese) (32.6% and 33.2% respectively) and obese (17.7% and 17% respectively).¹¹
- Among children aged 2-10 years, a greater proportion of boys (17.1%) than girls (13.2%) are obese. A higher percentage of boys (29.3%) than girls (25.9%) are also overweight (including obese).¹¹

Sociocultural patterns

- Among boys and girls aged 2-15, the prevalence of obesity is higher in the lowest income group – boys 20% compared to 15% in highest income group, and girls 20% compared to 9% in highest income group. The prevalence gap between income groups is widest for girls (11% compared to 5% for boys).¹¹

Ethnic differences

- Mean BMIs are significantly higher among Black Caribbean and Black African boys (19.3kg/m² and 19.0kg/m² respectively) and girls (20.0kg/m² and 19.6kg/m² respectively)¹⁵ than in the general child population. (In 2001-2002 boys in England had a mean BMI of 18.3kg/m² and girls had a mean BMI of 18.7kg/m²).¹⁷

- Prevalence of overweight (including obese) among Black African (42%), Black Caribbean (39%) and Pakistani (39%) boys is significantly higher than that of the general population (30%). The same is true of Black Caribbean (42%) and Black African (40%) girls who have a markedly higher prevalence than that of the general population (31%).¹⁵
- Obesity is almost four times more common in Asian children than in white children.¹⁸

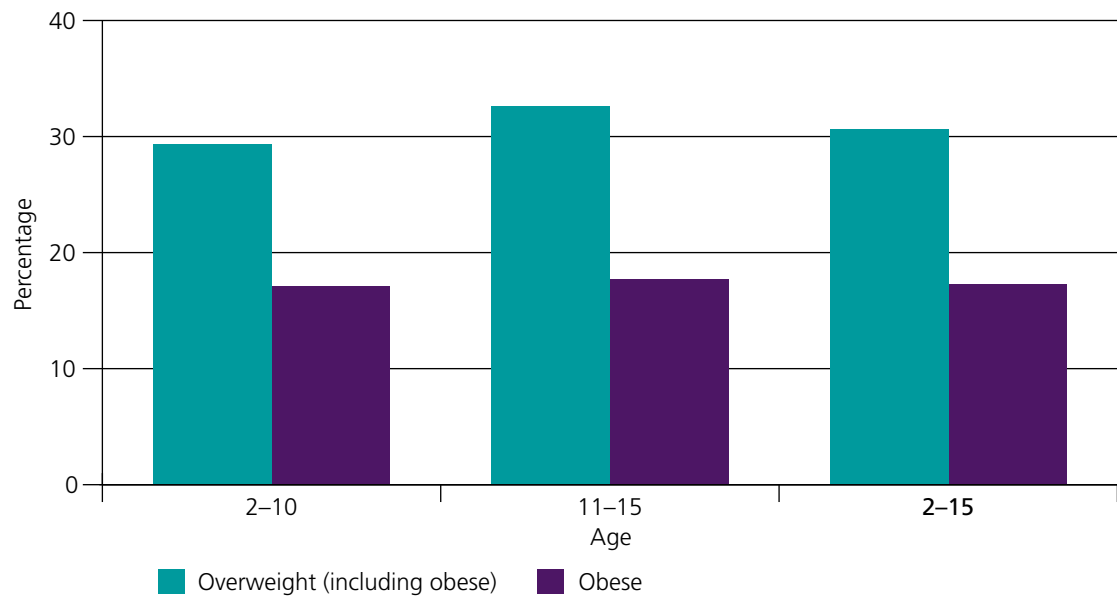
Regional differences

- Among boys, the London Government Office Region (GOR) has the highest prevalence rates of obesity (24%) and the East of England GOR and North West GOR have the lowest rates (both 14%). Among girls, East Midlands GOR has the highest rates (18%) and the East of England GOR has the lowest (10%).¹¹
- London GOR and the North East GOR have the highest rates of overweight (including obese) for boys (36% and 37% respectively) and Yorkshire and the Humber GOR has the lowest rates (26%). For girls, North West GOR has the highest prevalence of overweight (including obese) (34%) and the East of England GOR has the lowest prevalence (22%).¹¹

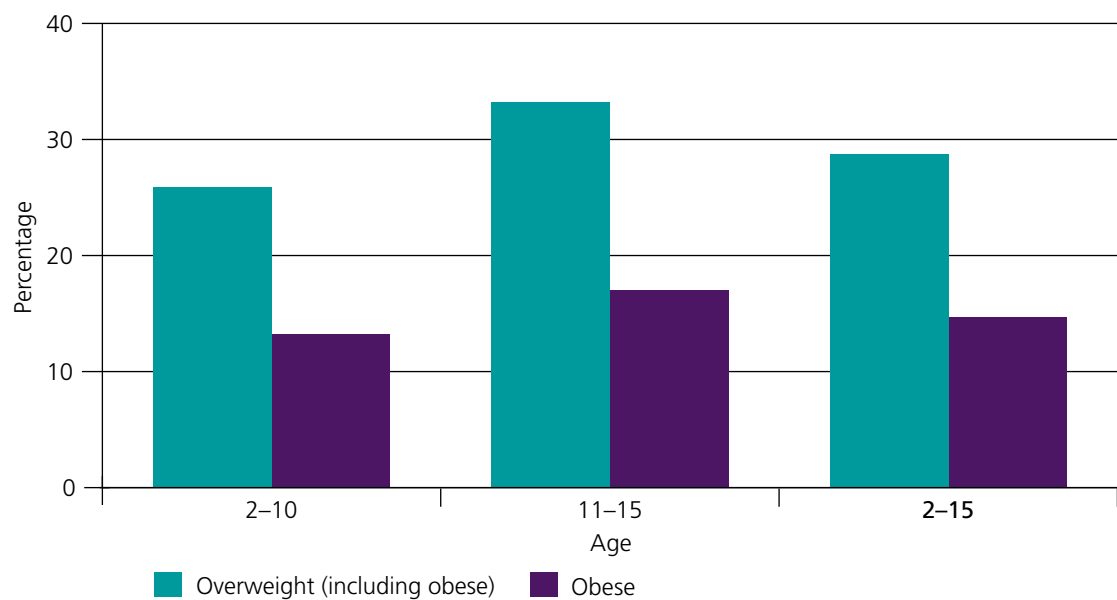
Note: The Health Survey for England (HSE) figures are weighted to compensate for non-response. (Before the HSE 2003, data were not weighted for non-response.)

Figure 3 Prevalence of overweight and obesity among children aged 2-15, by age and sex, England, 2006

Boys



Girls



Source: Health Survey for England 2006¹¹

Table 2 Prevalence of obesity among children aged 2-15 living in England, by ethnic group, 2004

GENDER	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	General population (2001-02)
BOYS							
Overweight	11%	11%	12%	14%	12%	8%	14%
Obese	28%	31%	14%	25%	22%	14%	16%
Overweight including obese	39%	42%	26%	39%	34%	22%	30%
GIRLS							
Overweight	15%	13%	11%	10%	14%	22%	15%
Obese	27%	27%	21%	15%	20%	12%	16%
Overweight including obese	42%	40%	31%	25%	33%	34%	31%

Source: Health Survey for England 2004: The health of ethnic minority groups¹⁵

Prevalence of overweight and obesity among children in Reception and Year 6 in England, 2006/07



KEY FACTS

Prevalence

- In Reception year children (aged 4-5 years), almost one in four of the children measured was either overweight or obese (22.9%). In Year 6 children (aged 10-11 years), this rate was nearly one in three (31.6%).¹⁹

Age

- The prevalence of obesity is significantly higher in Year 6 than in Reception – 17.5% compared to 9.9% respectively.¹⁹
- The percentage of children who are overweight is only slightly higher in Year 6 than in Reception (14.2% and 13% respectively).¹⁹

Gender

- The prevalence of obesity is significantly higher in boys than in girls in both age groups: Reception boys 10.7%, girls 9%; Year 6 boys 19%, girls 15.8%.¹⁹
- The percentage of children who are overweight is similar for boys (14.2%) and girls (14.1%) in Year 6. In Reception, this rate is slightly higher for boys (13.6%) than for girls (12.4%).¹⁹

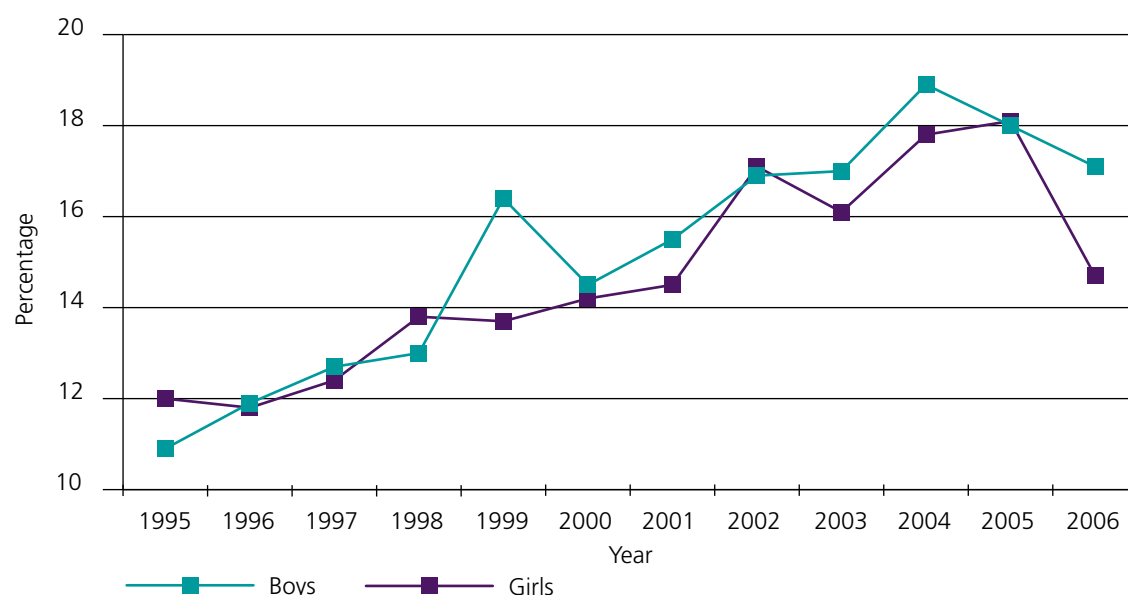
Note: Children were measured in the school year 2006/07 as part of the National Child Measurement Programme (NCMP).

Trends in overweight and obesity among children

**KEY FACTS**

- Mean BMI (kg/m^2) among children aged 2-15 increased between 1995 and 2006. For boys mean BMI rose from 17.7kg/m^2 to 18.2kg/m^2 (0.5kg/m^2 growth), and for girls mean BMI rose from 18.1kg/m^2 to 18.4kg/m^2 (0.3kg/m^2 growth).¹¹
- Obesity among children aged 2-15 rose from 11.5% in 1995 to 15.9% in 2006 – a relative increase of 38%. A more marked increase was observed in obesity levels among boys (57%) – from 10.9% in 1995 to 17.1% in 2006. Among girls, obesity levels rose from 12% in 1995 to 14.7% in 2006 – an increase of 23%.¹¹
- The proportion of children aged 2-15 who were classified as overweight (including obese) rose by 20% between 1995 and 2006 (from 24.5% to 29.5% respectively). For boys, there was a 27% increase (from 24% in 1995 to 30.4% in 2006) and for girls, there was a 14% increase (from 25% in 1995 to 28.6% in 2006).¹¹
- For children aged 2-10, obesity rose by 53% from 9.9% in 1995 to 15.1% in 2006. Obesity among boys rose by 75% (from 9.6% in 1995 to 16.8% in 2006) but among girls the growth was noticeably slower at 29% (from 10.3% to 13.3% respectively).¹¹
- Children aged 2-10 classified as overweight (including obese) increased from 22.7% in 1995 to 27.6% in 2006 – an increase of 22%. Among boys, there was a 30% rise in the prevalence of overweight (including obese) from 22.5% in 1995 to 29.2% in 2006; and among girls there was a 13% increase from 22.9% to 25.9% respectively.¹¹
- Among 11-15 year olds, obesity rose by 21% (14.4% in 1995 to 17.4% in 2006). For boys, there was a 30% increase in the levels of obesity (13.5% and 17.6% respectively) and among girls, an 11% increase (15.4% and 17.1% respectively).¹¹
- The levels of overweight (including obese) among 11-15 year olds increased from 28.1% in 1995 to 32.9% in 2006 – an increase of 17%. For boys, the prevalence of overweight (including obese) rose by 20% (26.9% and 32.4% respectively) and for girls by 14% (29.3% and 33.3% respectively).¹¹

Note: For accuracy, unweighted figures have been used for time comparisons. (Before the Health Survey for England 2003, HSE data were not weighted for non-response.)

Figure 4 Obesity trends among children aged 2-15, England, by sex, 1995-2006

Note: For accuracy, Figure 4 uses unweighted figures. (Before the HSE 2003, data were not weighted for non-response.)

Source: Health Survey for England 2006¹¹

Future trends in overweight and obesity among children and young people aged under 20 years^{5, 16}



KEY FACTS

Prevalence

- The proportion of children who are obese in the under 20 age group will rise to approximately 15% in 2025 (with slightly lower prevalence in boys than in girls).
- By 2050, it is estimated that 25% of under 20 year olds will be obese.
- By 2050, it is predicted that 70% of girls could be overweight or obese, with only 30% in the healthy BMI range. For boys, it is estimated that 55% could be overweight or obese and around 45% could be in the healthy range.

Age

- Among children aged 6-10 years, boys will be more obese than girls, with an estimate of 35% of boys being obese by 2050, compared with 20% of girls.*
- Among children aged 11-15 years, more girls than boys will be obese by 2050 – 23% of boys and 35% of girls.

Notes:

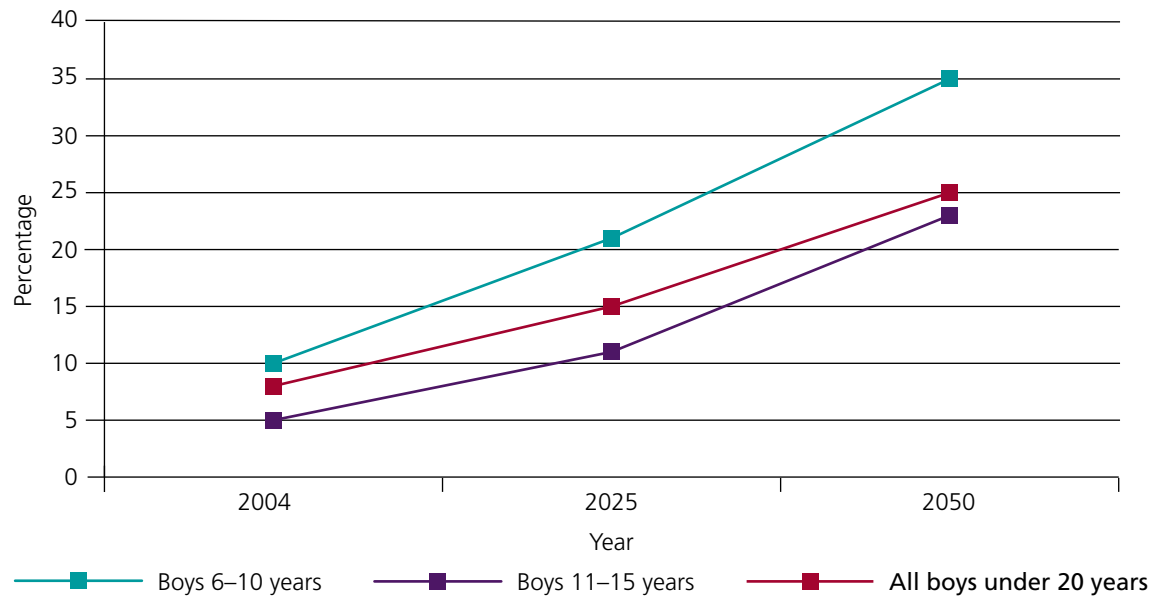
Future obesity trends were extrapolated by Foresight in 2007 using Health Survey for England unweighted data for 1995-2004. The estimates were based on the International Obesity Task Force (IOTF) definition of childhood obesity, so data found here will be different from figures found elsewhere in this toolkit.

Predicted figures should be viewed with caution as confidence intervals (CIs) associated with these figures grow larger as one projects into the future.

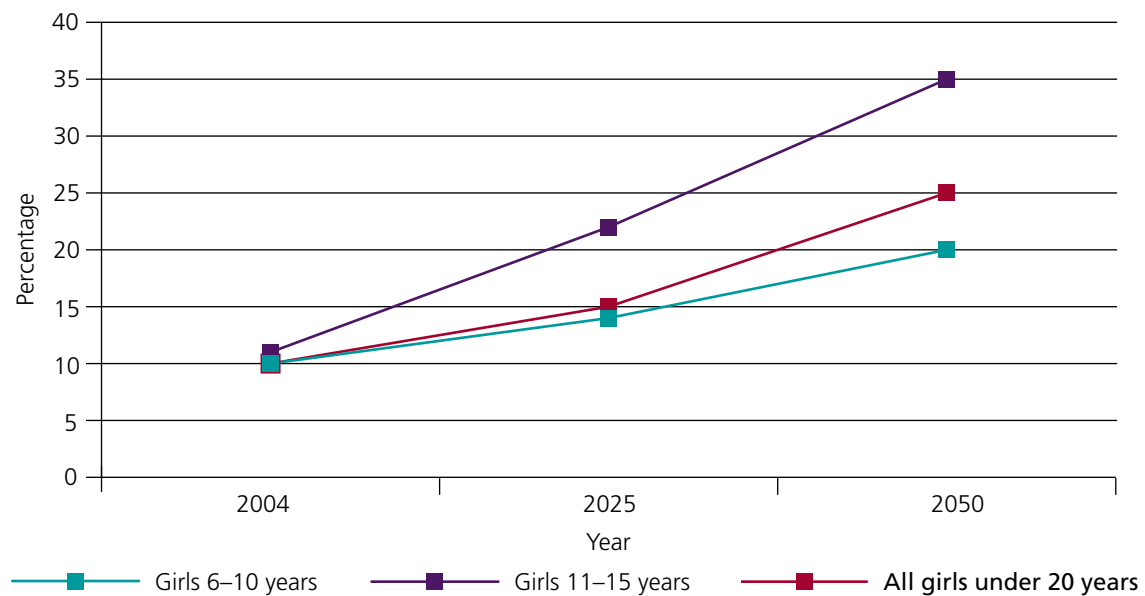
* The CIs on the 2050 extrapolation for girls aged 6-10 are very large.

Figure 5 Future trends in obesity among children and young people aged under 20 years, 2004-2050

Boys



Girls



Note: Data have been estimated using the International Obesity Task Force (IOTF) childhood obesity definition. The graph excludes confidence intervals (CIs), so figures should be viewed with caution. CIs grow larger as one projects into the future. The CIs on the 2050 extrapolation for girls aged 6–10 is very wide.

Source: Butland et al, 2007⁵

The health risks of overweight and obesity

Premature mortality

It has long been known that obesity is associated with premature death. Obesity increases the risk of a number of diseases including the two major killers – cardiovascular disease and cancer. It is estimated that, on average, obesity reduces life expectancy by between 3 and 13 years – the excess mortality being greater the more severe the obesity and the earlier it develops.²⁰

Obesity-related morbidity

In public health terms, the greatest burden of disease arises from obesity-related morbidity. Table 3 gives details of the health problems associated with obesity.

Table 3 Relative risks of health problems associated with obesity

Greatly increased risk (Relative risk much greater than 3)	Moderately increased risk (Relative risk 2-3)	Slightly increased risk (Relative risk 1-2)
• Type 2 diabetes • Insulin resistance • Gallbladder disease • Dyslipidaemia (imbalance of fatty substances in the blood, eg high cholesterol) • Breathlessness • Sleep apnoea (disturbance of breathing)	• Coronary heart disease • Hypertension (high blood pressure) • Stroke • Osteoarthritis (knees) • Hyperuricaemia (high levels of uric acid in the blood) and gout • Psychological factors	• Cancer (colon cancer, breast cancer in postmenopausal women, endometrial [womb] cancer) • Reproductive hormone abnormalities • Polycystic ovary syndrome • Impaired fertility • Low back pain • Anaesthetic risk • Foetal defects associated with maternal obesity

Note: All relative risk estimates are approximate. The relative risk indicates the risk measured against that of a non-obese person of the same age and sex. For example, an obese person is two to three times more likely to suffer from hypertension than a non-obese person.

Source: Adapted from World Health Organization, 2000²¹

The associated health outcomes of childhood obesity are similar to those of adults and include:^{22, 23}

- hypertension (high blood pressure)
- dyslipidaemia (imbalance of fatty substances in the blood)
- hyperinsulinaemia (abnormally high levels of insulin in the blood).

(The above three abnormal findings constitute the 'metabolic syndrome' – see page 25.)

Other possible consequences for children and young people include:

- mechanical problems such as back pain and foot strain
- exacerbation of asthma
- psychological problems such as poor self-esteem, being perceived as unattractive, depression, disordered eating and bulimia
- type 2 diabetes.

Some of these problems appear in childhood, while others appear in early adulthood as a consequence of childhood obesity. The most important long-term consequence of childhood obesity is its persistence into adulthood and the early appearance of obesity-related disorders and diseases normally associated with middle age, such as type 2 diabetes and hypertension. Studies have shown that the higher a child's BMI (kg/m²) and the older the child, the more likely they will be an overweight or obese adult.²⁴ Furthermore, research has demonstrated that the offspring of obese parents have a greater risk of becoming overweight or obese adults,²⁵ increasing the likelihood of developing such health problems later in life.

Conditions associated with obesity



KEY FACTS

Type 2 diabetes

- Ninety per cent of type 2 diabetics have a BMI of more than 23kg/m².

Cardiovascular disease

- Among those aged under 50 years, there is 2.4-fold increase in risk of coronary heart disease in obese women compared with non-obese women, and a two-fold increase in risk in obese men compared with non-obese men.²⁶
- Seventy per cent of obese women with hypertension have left ventricular hypertrophy (thickening of the heart muscle's main pumping chamber, the left ventricle).
- Obesity is a contributing factor to heart failure in more than 10% of patients.

Hypertension (high blood pressure) and stroke

- Obese people have a five-fold risk of hypertension compared with non-obese people.
- Sixty-six per cent of cases of hypertension occur in overweight people (BMI 25-29.9kg/m²).
- Eighty-five per cent of cases of hypertension occur in people with a BMI of more than 25kg/m².
- Those who are overweight or obese and who also have hypertension have an increased risk of ischaemic stroke.

Metabolic syndrome

- The development and severity of all the component risk factors of the metabolic syndrome (see page 25) are linked to the predominant risk factor of central obesity.²⁷
- In the UK, it is estimated that 25% of the adult population show clear signs of the metabolic syndrome.²⁷

Dyslipidaemia

- Dyslipidaemia progressively develops as BMI increases from 21kg/m² with a rise in low density lipoprotein (LDL).

Cancer

- Ten per cent of all cancer deaths among non-smokers are related to obesity (and 30% of endometrial cancers).
- Obesity increases the risk of colon cancer by nearly three times in both men and women.²⁸

Gallbladder disease

- Thirty per cent of overweight and obese people have gallstones compared with 10% of non-obese people.

Non-alcoholic fatty liver disease (NAFLD)

- It has been reported that 10-20% of obese children and over 75% of obese adults have been diagnosed with NAFLD.²⁹⁻³²

Reproductive function

- Six per cent of primary infertility in women is attributable to obesity.²⁶
- Impotency and infertility are frequently associated with obesity in men.

Mechanical disorders such as osteoarthritis and low back pain

- Among elderly people, these conditions are frequently associated with increasing body weight. Among older people, the risk of disability attributable to osteoarthritis is equal to the risk of disability attributable to heart disease, and is greater than for any other medical disorder of the elderly.

Respiratory effects

- Neck circumference of more than 43cm in men and more than 40.5cm in women is associated with obstructive sleep apnoea (OSA), daytime somnolence and development of pulmonary hypertension.
- Between 60% and 70% of people suffering from OSA are obese.³³

Source: Adapted from Kopelman 2007³⁴

Type 2 diabetes

Perhaps the most common obesity-related co-morbidity, and that which is likely to cause the greatest health burden, is type 2 diabetes.³⁵ Ninety per cent of type 2 diabetics have a BMI of more than 23kg/m². Diabetes is about 20 times more likely to occur in people who are very obese (BMI over 35kg/m²) compared to individuals with a BMI of between 18.5 and 24.9kg/m² (healthy weight).³⁴

For women, the Nurses' Health Study showed that the single most important risk factor for type 2 diabetes was overweight and obesity.³⁶ The risk is especially high for women with a central pattern of fat distribution, characterised by a large waist circumference (often described as 'apple-shaped') and often mediated through the metabolic syndrome (see the next page). The risk is less for women with a similar BMI who tend to deposit their excess fat on the hips and thighs ('pear-shaped').²⁰ For men, data from the Health Professionals Follow-up Study indicated that a western diet (high consumption of red meat, processed meat, high-fat dairy products, French fries, refined grains, and sweets and desserts), combined with lack of physical activity and excess weight (BMI in excess of 30kg/m²), dramatically increases the risk of developing type 2 diabetes.³⁷

Coronary heart disease

Coronary heart disease is often associated with weight gain and obesity. In general, the relationship between BMI and coronary heart disease is stronger for women than for men. The Framingham Heart Study found that, among those under the age of 50 years, the incidence of coronary heart disease increased 2.4-fold in obese women (BMI over 30kg/m²), and two-fold in obese men.²⁶

For women, the Nurses' Health Study showed a clear relationship between coronary heart disease and elevated BMI even after controlling for other factors such as age, smoking, menopausal status and family history. The risk of coronary heart disease increased two-fold with a BMI between 25 and 28.9kg/m², and three-fold (3.6) for a BMI above 29kg/m², compared with women with a BMI of less than 21kg/m².^{20, 38}

For men younger than 65 years, a US study showed that there was an increased risk of coronary heart disease the higher the BMI. At a BMI of 25-28.9kg/m², men were one and a half times (1.72)

at risk, at a BMI of 29.0-32.9kg/m² men were two and a half times (2.61) at risk, and at a BMI of more than 33kg/m² men were three and a half times at risk, compared with the risk at a BMI of less than 23kg/m².³⁹

Hypertension (high blood pressure) and stroke

Obesity is a major contributor to the development of hypertension – a person with a BMI of 30kg/m² or more (obese) is five times more likely to develop hypertension compared with non-obese people. Sixty-six per cent of hypertension cases are linked with excess weight (BMI 25-29.9kg/m²), and 85% are associated with a BMI of more than 25kg/m² (overweight).³⁴ The Framingham Heart Study estimated that 75% of the cases of hypertension in men and 65% of the cases in women are directly attributable to overweight/obesity.⁴⁰ Long duration obesity does not appear necessary to elevate blood pressure as the relationship between obesity and hypertension is evident in children.⁴¹

Overweight/obesity is thought to be a major risk factor in stroke. Several studies have shown an increased risk for stroke with increasing BMI (kg/m²) but others have found no association. In some studies there was an association with waist-to-hip ratio, but not BMI, suggesting that central obesity rather than general obesity is the key factor.⁴² In a 28-year study of men in mid-life, it was found that obesity can have a significant impact on stroke risk, doubling its likelihood later in life. Men with a BMI of between 20kg/m² and 22.49kg/m² were significantly less likely to suffer a stroke than those with a BMI of more than 30kg/m².⁴²

Metabolic syndrome

Metabolic syndrome refers to a cluster of risk factors related to a state of insulin resistance, in which the body gradually becomes less able to respond to the metabolic hormone insulin. People with the metabolic syndrome have an increased risk of developing coronary heart disease, stroke and type 2 diabetes.⁴³ The component risk factors related to insulin resistance are:

- increased waist circumference
- high blood pressure
- high blood glucose
- high serum triglyceride
- low blood HDL cholesterol (the 'good' cholesterol).

The development and severity of all the components are linked to the predominant risk factor of central obesity. Previously known as Syndrome X, metabolic syndrome is becoming increasingly common although the true prevalence of the disease is unknown. In the UK, it is estimated that as much as 25% of the adult population show clear signs of the metabolic syndrome,²⁷ a figure which is expected to increase in parallel with the rising epidemic of obesity.⁴⁴ Incidence has been found to be higher in certain ethnic sub-groups such as Asian and African-Caribbean groups.⁴⁵ In addition, it has been noted that in people with normal glucose tolerance, the prevalence of the metabolic syndrome increases with age and is higher in men than women, but these differences are not seen in diabetic patients.⁴⁶ Childhood obesity is a powerful predictor of the metabolic syndrome in early adulthood.¹⁴

Dyslipidaemia

Obesity is associated with dyslipidaemia. Dyslipidaemia is characterised by increased triglycerides, elevated levels of LDL cholesterol (the 'bad' cholesterol) and decreased concentrations of HDL cholesterol (the 'good' cholesterol).⁴⁷ Dyslipidaemia progressively develops as BMI increases from 21kg/m², with a rise in LDL.³⁴ On average, the more fat, the more likely an individual will be dyslipidaemic and to express elements of the metabolic syndrome. However, location of fat, age and gender are important modifiers of the impact of obesity on blood lipids:

- *Location of fat* – Fat cells exert the most damaging impact when they are centrally located because, compared to peripheral fat, central fat is insulin resistant and more rapidly recycles fatty acids.⁴⁸
- *Age* – Among the obese, younger people have relatively larger changes in blood lipids at any given level of obesity.⁴⁷
- *Gender* – Among overweight women, excess body weight seems to be associated with higher total, non-HDL and LDL cholesterol levels, higher triglyceride levels, and lower HDL cholesterol levels. Total cholesterol to HDL cholesterol ratios seem to be highest in obese postmenopausal women, due to the much lower HDL cholesterol concentrations.⁴⁷

Cancer

Ten per cent of all cancer deaths among non-smokers are related to obesity.³⁴ Research suggests that, for women, obesity increases the risk of various types of cancer, including colon, breast (postmenopausal), endometrial (womb), cervical, ovarian and gallbladder cancers. Obesity is estimated to account for 30% of endometrial cancer deaths³⁴ and for 20% of all cancer deaths in women.⁴⁹ For men, obesity increases the risk of colorectal and prostate cancer. A clear association is seen with cancer of the colon: obesity increases the risk of this type of cancer by nearly three times in both men and women.²⁸

Gallbladder disease

Obesity is an established predictor of gallbladder disease. The risk of developing the disease increases with weight gain although it is unclear how being overweight or obese may cause gallbladder disease. However, the most common reason for gallbladder disease is gallstones, for which obesity is a known risk factor. Research suggests that 30% of overweight and obese people have gallstones compared to 10% of non-obese people.⁵⁰

Non-alcoholic fatty liver disease

Non-alcoholic fatty liver disease (NAFLD), the liver manifestation of the metabolic syndrome, is now considered to be the most common liver problem in the western world. A significant proportion of patients with NAFLD can progress to cirrhosis, liver failure, and hepatocellular carcinoma (liver tumour).⁵¹ It has been reported that over 75% of obese adults have been diagnosed with NAFLD.²⁹ For children, with the rise in childhood obesity, there has been an increase in the prevalence, recognition and severity of paediatric NAFLD with about 10-20% of obese children being diagnosed with the condition.³⁰⁻³² It is the most common form of chronic liver disease among children.⁵²

Reproductive function

For women, obesity has a significant adverse impact on reproductive outcome. It influences not only the chance of conception – 6% of primary infertility in women is attributable to obesity²⁶ – but also the response to fertility treatment. In addition, obesity increases the risk of miscarriage, congenital abnormalities (such as neural tube defects) and pregnancy complications including hypertension, pre-eclampsia and gestational diabetes. There are also potential adverse effects on the long-term health of both mother and infant.⁵³ For men, impotency and infertility are frequently associated with obesity.³⁴

Mechanical disorders such as osteoarthritis and low back pain

Osteoarthritis (OA), or degenerative disease of the weight-bearing joints such as the knee, is a very common complication of obesity, and causes a great deal of disability.²⁸ There is a frequent association between increasing body weight and OA in the elderly, and the risk of disability attributable to OA is equal to the risk of disability attributable to heart disease, and is greater than

for any other medical disorder of the elderly.³⁴ Pain in the lower back is also frequently suffered by obese people, and may be one of the major contributors to obesity-related absences from work. It is likely that the excess weight alone, rather than any metabolic effect, is the cause of these problems.²⁸

Respiratory effects

A number of respiratory disorders are exacerbated by obesity. A neck circumference of more than 43cm in men and more than 40.5cm in women is associated with obstructive sleep apnoea (OSA), daytime somnolence and development of pulmonary hypertension. One of the most serious of these is OSA, a condition characterised by short, repetitive episodes of impaired breathing during sleep. It has been estimated that as many as 60-70% of people suffering from OSA are obese.³³ Obesity, especially in the upper body, increases the risk of OSA by narrowing the individual's upper airway. OSA can increase the risk of high blood pressure, angina, cardiac arrhythmia, heart attack and stroke.

Breathlessness

Breathlessness on exertion is a very common symptom in obese people.⁵⁴ For example, in a large epidemiological survey, 80% of obese middle-aged subjects reported shortness of breath after climbing two flights of stairs compared with only 16% of similarly aged non-obese controls, and this was despite smoking being significantly less frequent in the obese.⁵⁵ In another study of patients with type 2 diabetes, one-third reported troublesome shortness of breath and its severity increased with BMI.⁵⁶ Importantly, breathlessness in the obese may be due to any of several factors including co-existent (but often obesity-related) cardiac disease, unrelated respiratory disease or the effects of obesity itself on breathing, although it is not clear whether breathlessness at rest can be attributable to obesity.⁵⁴

Psychological factors

Psychological damage caused by overweight and obesity is a huge health burden.⁵⁷

In childhood, overweight and obesity are known to have a significant impact on psychological wellbeing, with many children developing a negative self-image, lowered self-esteem and a higher risk of depression. In addition, almost all obese children have experiences of teasing, social exclusion, discrimination and prejudice.⁵⁸⁻⁶² In one study, it was shown that children as young as six years demonstrated negative perceptions of their obese peers.⁶³

In adults, the consequences of overweight and obesity have led to clinical depression, with rates of anxiety and depression being three to four times higher among obese individuals.⁶⁴ Obese women are around 37% more likely to commit suicide than women of normal weight.⁵⁷ Stigma is a fundamental problem. Many studies (for example: Gortmaker et al, 1993,⁶⁵ Wadden and Stunkard, 1985⁶³) have reported widespread negativity regarding obese people, particularly in terms of sexual relations. The psychological experiences of overweight and obesity are extremely complex and are linked to culture and societal values and 'norms'.

Impact of overweight and obesity on incidence of disease in the future

Analysis of BMI predictions from 2005 to 2050 indicate that the greatest increase in the incidence of disease would be for type 2 diabetes (an increase of more than 70% from 2004 to 2050) with increases of 30% for stroke and 20% for coronary heart disease over the same period.^{5, 16}

The health benefits of losing excess weight

Weight loss in overweight and obese individuals can improve physical, psychological and social health. There is good evidence to suggest that a moderate weight loss of 5-10% of body weight in obese individuals is associated with important health benefits, particularly in a reduction in blood pressure and a reduced risk of developing type 2 diabetes and coronary heart disease.^{66, 67} Table 4 shows the results of losing 10kg.^{22, 68}

Table 4 The benefits of a 10kg weight loss

	Benefit
Mortality	• More than 20% fall in total mortality • More than 30% fall in diabetes-related deaths • More than 40% fall in obesity-related cancer deaths
Blood pressure (in hypertensive people)	• Fall of 10mmHg systolic blood pressure • Fall of 20mmHg diastolic blood pressure
Diabetes (in newly diagnosed people)	• Fall of 50% in fasting glucose
Lipids	• Fall of 10% of total cholesterol • Fall of 15% of low density lipoprotein (LDL) cholesterol • Fall of 30% of triglycerides • Increase of 8% of high density lipoprotein (HDL) cholesterol
Other benefits	• Improved lung function, and reduced back and joint pain, breathlessness, and frequency of sleep apnoea • Improved insulin sensitivity and ovarian function

Source: Adapted from Jung, 1997;⁶⁸ Mulvihill and Quigley, 2003²²

In relation to reduction in co-morbidities, the Diabetes Prevention Program in the US has shown that, among individuals with impaired glucose tolerance, a 5-7% decrease in initial weight reduces the risk of developing type 2 diabetes by 58%.⁶⁹

It is important to recognise that, for very obese people, such changes will not necessarily bring them out of the 'at-risk' category, but there are nevertheless worthwhile health gains. A continuous programme of weight reduction should be maintained to help continue to reduce the risks.

Weight reduction in overweight and obese people can improve self-esteem and can help tackle some of the associated psychosocial conditions. It should not be forgotten that small changes can have a positive impact on the overall health and wellbeing of individuals by increasing mobility, energy and confidence.

The economic costs of overweight and obesity

The costs of obesity are very likely to grow significantly in the next few decades. Apart from the personal and social costs such as morbidity, mortality, discrimination and social exclusion, there are significant health and social care costs associated with the treatment of obesity and its consequences, as well as costs to the wider economy arising from chronic ill health.⁵ The Foresight programme^{5, 16} forecast the direct costs to the NHS of treating obesity and its consequences and the indirect costs such as absence from work, morbidity not treated in the health service and reduction in quality of life. These forecasts were estimated from 2007 to 2050 (see Table 5 and Figure 6).¹⁶

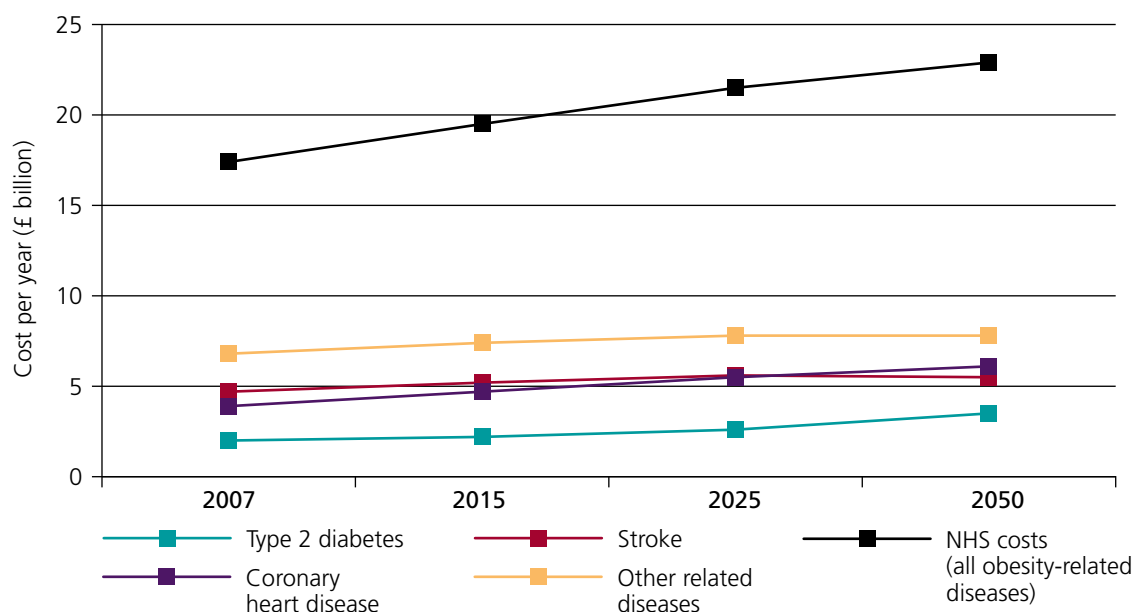
In 2007, the total annual cost to the NHS of diseases for which elevated BMI is a risk factor (direct healthcare costs) was estimated to be £17.4 billion, of which overweight and obesity were estimated to account for £4.2 billion, and obesity alone for £2.3 billion. By 2050, it has been estimated that the total NHS costs (of related diseases) could rise to £22.9 billion, of which overweight and obesity are predicted to cost the NHS £9.7 billion and obesity alone £7.1 billion.¹⁶ In 2007, the indirect costs of overweight and obesity were estimated to be as much as £15.8 billion. The wider cost of overweight and obesity to society by 2050 is estimated to be £49.9 billion.¹⁶

Table 5 Future costs of elevated Body Mass Index

	£ billion per year			
	2007	2015	2025	2050
Total NHS cost (of related diseases)	17.4	19.5	21.5	22.9
NHS costs directly attributable to overweight and obesity	4.2	6.3	8.3	9.7
NHS costs directly attributable to obesity	2.3	3.9	5.3	7.1
Wider total costs of overweight and obesity	15.8	27	37.2	49.9
Projected percentage of NHS costs at £70 billion	6%	9.1%	11.9%	13.9%

Source: Butland et al, 2007;⁵ McCormick et al, 2007⁷⁰

Figure 6 Estimated future NHS costs of elevated Body Mass Index, 2007-2050



Source: Butland et al, 2007;⁵ McCormick et al, 2007⁷⁰

Causes of overweight and obesity

The causes of overweight and obesity are complex. But in essence the accumulation of excess body fat over a period of time is caused by more energy ('calories') taken in through eating and drinking than is used up through metabolism and physical activity – an imbalance between 'energy in' and 'energy out'.

Thus, an individual's biology (genetics) and behaviour (eating and physical activity habits) primarily influence energy balance in the body:

- Genes may play an important role in influencing metabolism and the amount and position of fatty tissue in the body. It is also likely that an individual's eating and physical activity behaviour may, at least in part, be genetically determined.⁵
- Eating (and drinking) behaviour is key – an individual's energy intake is determined by their drive and opportunity to eat, and may vary from zero to several thousand calories a day.⁵
- Physical activity behaviour is also crucial. Energy expenditure is largely determined by the frequency, intensity and duration of activity as well as an individual's metabolic predisposition.⁵

However, these primary determinants of an individual's energy balance may themselves be strongly influenced by a range of secondary psychological, social and environmental determinants – for example: parents rewarding children with sweets or crisps, the availability of inexpensive takeaway fried foods, and the increase in car ownership, TV viewing and computer games.⁵

Human biology

There is a range of specific genes associated with excess weight. Obesity-related genes could affect how food is metabolised and how fat is stored, and they could also affect an individual's behaviour, inclining an individual towards lifestyle choices that may increase the risk of obesity:

- Some genes may control appetite, making an individual less able to sense fullness.^{71, 72}
- Some genes may make an individual more responsive to the taste, smell or sight of food.⁷³
- Some genes may affect the sense of taste, giving preferences for high-fat foods and repelling healthy foods.⁷⁴
- Some genes may force an individual to be less likely to engage in physical activity.⁷⁴

People with obesity-related genes are not destined to be obese but they will have a higher risk of obesity. In the modern environment, they may need to work harder than others to maintain a healthy body weight by making long-term, sustained lifestyle changes.

The pattern of growth during early life also contributes to the risk of excess weight. A baby's growth rate in the womb and following birth is in part determined by parental factors, especially with regard to the mother's diet, and what and how she feeds her baby. Breastfed babies show slower growth rates than formula-fed babies and this may contribute to the reduced risk of obesity later in life shown by breastfed babies.⁷⁵ Weaning practices are also thought to be important, given the association between characteristic weight gain seen in early childhood at about 5 years and later obesity.⁵

The food environment

Systems of food production, storage and distribution have created an increasingly attractive, diverse and energy-dense food supply. Food is widely available, and promotion and advertising provide additional exposure to food cues (the sight or smell of food which can stimulate the appetite and promote higher consumption). The cost of food, which might otherwise be a barrier to consumption, is low in historical terms despite recent rises, with the cheapest lines often being processed, energy-dense foods served in large portions.⁷³ High-fat meals are particularly energy-dense as fat contains more than twice as many calories per gram as protein or carbohydrate. (Fat contains 9kcal per gram, compared with 4kcal per gram for protein or carbohydrate.)

In parallel with the transformation of the food supply, social norms related to eating have changed. Children are given more control over food choices. Grazing, snacking, eating on the go and eating outside of the home are common and contribute a substantial proportion of total calorie intake.⁷³ From 1940 to 2006, the average household energy intake (calories consumed in the home) showed a decline of approximately 12%.⁷⁶ However it is only since 1992 that the National Food Survey has taken account of alcoholic drinks, soft drinks and confectionery brought home, and only since 1994 that it has included food and drink purchased and eaten outside the home.⁷⁶ In 2006, these components accounted for an extra 13% of energy intake.

Eating outside the home is becoming increasingly popular,²⁸ and surveys indicate that food eaten out tends to be higher in fats and added sugars than food consumed in the home.^{20, 28, 76} Food eaten outside the home is also frequently offered in extra-large portions – notably soft drinks, savoury snacks and confectionery – often at minimal additional cost. There is growing evidence that people eat more when presented with larger portions⁷⁷ and calorie intake is increased without necessarily making the individual feel full.²⁸

The modern food environment has therefore contributed to too much saturated fat, added sugar and salt and not enough fruit and vegetables in the UK diet. (See page 40 for dietary recommendations and current intake levels.)

The physical environment

Over the past 50 years, physical activity has declined significantly in the UK. There are many reasons for this, including:

- fewer jobs requiring physical work as the UK has changed from an industrial to a service-based economy
- increased labour-saving technology in the home, work and retail environments
- changes in work and shopping patterns – from local to distant – that have resulted in greater reliance on motorised transport
- increased self-sufficiency in the home, including entertainment, food storage and preparation, controlled climates and greater comfort⁷⁸
- poor urban planning where provision for pedestrians and cyclists has been given a much lower priority than for motor vehicles^{79, 80}
- creation of transport systems which favour the car and not walkers and cyclists^{79, 80}
- a decline in quality of urban public parks – only 18% are in good condition – and loss of recreational outdoor facilities.^{79, 80}

The modern physical environment has therefore contributed to increasingly sedentary lifestyles. Data from the National Travel Survey⁸¹ show that in England between 1975/76 and 2007 the average number of miles per year travelled by foot fell by around a quarter and by cycle by around a third. (However, these data exclude walking and cycling for leisure.) Over the same period the average number of miles per year travelled by car increased by just under 70%, with the number of people in a household without a car falling from 41% to 19%.⁸¹

Physical activity is a particular issue in children. Schools in England are at the bottom of the European league in terms of time allocated to physical education in primary and secondary schools. Only 5% of children use their bicycles as a form of transport in the UK compared with 60-70% in the Netherlands, and 41% of primary school children and 20% of secondary school children are now taken to school by car, compared with 9% in 1971.^{81, 82} Furthermore, British children are increasingly spending more time in front of the television or computer screen – an average of 5 hours and 20 minutes a day, up from 4 hours and 40 minutes five years ago.⁸³

Culture and individual psychology

Our eating, drinking and exercise habits are greatly influenced by social and psychological factors.⁸⁴ High consumption of fatty foods and low consumption of fruit and vegetables are strongly linked to those in routine and manual occupations. Over-consumption of sweet foods and drinks can be a reaction to more negative feelings including low-self esteem or depression. So-called 'comfort foods' (ie foods high in sugar, fat and calories) seem to calm the body's response to chronic stress. There may be a link between so-called modern life and increasing rates of over-eating, overweight, and obesity.⁸⁵ One study showed that men were more likely to eat when stressed if they were single, divorced or frequently unemployed. Among women, those who felt a lack of emotional support in their lives had a greater tendency to eat to cope with stress.⁸⁶ Understanding these behavioural determinants in greater depth is critical in engaging with individuals and helping to devise rational treatment strategies.²⁰



See **Tool D4** *Identifying priority groups*.



Tackling overweight and obesity

This section of the toolkit looks at ways of tackling overweight and obesity. It focuses on the five key themes highlighted in *Healthy Weight, Healthy Lives: A cross-government strategy for England*¹ as the basis of tackling excess weight:

- **Children: healthy growth and healthy weight** focuses on the importance of prevention of obesity from childhood. It looks at recommended government action during the following life stages – pre-conception and antenatal care, breastfeeding and infant nutrition, early years and schools. Importantly, it also discusses the psychological issues that impact on overweight and obesity.
- **Promoting healthier food choices** details the government recommendations for promoting a healthy, balanced diet to prevent overweight and obesity. It provides standard population dietary recommendations and *The eatwell plate* recommendations for individuals over the age of five years.
- **Building physical activity into our lives** provides details of government recommendations for active living throughout the life course. It focuses on action to prevent overweight and obesity by everyday participation in physical activity, the promotion of a supportive built environment and the provision of advice to decrease sedentary behaviour.
- **Creating incentives for better health** focuses on action to maintain a healthy weight in the workplace by the provision of healthy eating choices and opportunities for physical activity. It provides details of recommendations from the National Institute for Health and Clinical Excellence (NICE) guidance.⁶
- **Personalised support for overweight and obese individuals** focuses on recommended government action to manage overweight and obesity through weight management services (NHS and non-NHS based). It provides clinical guidance and examples of appropriate services for children and adults.

Government action on overweight and obesity

Tackling overweight and obesity is a national government priority. In 2007, a new ambition was announced for England to be *the first major country to reverse the rising tide of obesity and overweight in the population by ensuring that all individuals are able to maintain a healthy weight. Our initial focus is on children: by 2020 we will have reduced the proportion of overweight and obese children to 2000 levels.* This new ambition forms part of the Government's new public service agreement (PSA) on Child Health – PSA 12: to improve the health and wellbeing of children and young people under 11.⁸⁷ The Department of Health is responsible for the overall ambition on healthy weight and is jointly responsible with the Department for Children, Schools and Families for delivering the PSA on Child Health.

Setting out the Government's immediate plans towards the new ambition, a comprehensive strategy on obesity, *Healthy Weight, Healthy Lives: A cross-government strategy for England*¹ has been developed. Based on the evidence provided by the Government Office for Science's Foresight report,⁵ the strategy highlights five key themes for tackling excess weight:

- 1 **Children: healthy growth and healthy weight** – early prevention of weight problems to avoid the 'conveyor-belt' effect into adulthood
- 2 **Promoting healthier food choices** – reducing the consumption of foods that are high in fat, sugar and salt and increasing the consumption of fruit and vegetables
- 3 **Building physical activity into our lives** – getting people moving as a normal part of their day
- 4 **Creating incentives for better health** – increasing the understanding and value people place on the long-term impact of decisions
- 5 **Personalised support for overweight and obese individuals** – complementing preventive care with treatment for those who already have weight problems.

(See pages 37–52 for further discussion of these themes.)

Although the ambition covers a period of 12 years, progress for the first three years (2008/09 to 2010/2011) will focus on delivering the PSA on Child Health,⁸⁷ and so actions within the first theme, the healthy growth and healthy weight of children, are particularly important. These include:

- identification of at-risk families as early as possible and promotion of breastfeeding as the norm for mothers
- investment to ensure all schools are healthy schools
- investing £75 million in an evidence-based social marketing programme that will inform, support and empower parents in making changes to their children's diet and levels of physical activity.

The initial focus will be on children, however the strategy emphasises that any preventive action to tackle overweight and obesity needs to take a life course approach. The evidence to date indicates a number of points in the life course where there may be specific opportunities to influence behaviour (see Table 6 on the next page). These relate to critical periods of metabolic change (eg early life, pregnancy and menopause), times linked to spontaneous changes in behaviour (eg leaving home, or becoming a parent), or periods of significant shifts in attitudes (eg peer group influences, or diagnosis of ill health).⁵

Table 6 Critical opportunities in the life course to influence behaviour


Age	Stage	Issue
	Preconception In utero	Maternal nutrition programmes foetus
0–6 months	Post-natal	Breast versus bottle-feeding to programme later health
6–24 months	Weaning	Growth acceleration hypothesis (slower pattern of growth in breastfed compared with formula-fed infants)
2–5 years	Pre-school	Adiposity rebound hypothesis (period of time in early childhood when the amount of fat in the body falls and then rises again, which causes BMI to do the same)
5–11 years	1st school	Development of physical skills Development of food preferences
11–16 years	2nd school	Development of independent behaviours
16–20 years	Leaving home	Exposure to alternative cultures/behaviour/lifestyle patterns (eg work patterns, living with friends etc)
16+ years	Smoking cessation	Health awareness prompting development of new behaviours
16–40 years	Pregnancy	Maternal nutrition
16–40 years	Parenting	Development of new behaviours associated with child-rearing
45–55 years	Menopause	Biological changes Growing importance of physical health prompted by diagnosis or disease in self or others
60+ years	Ageing	Lifestyle change prompted by changes in time availability, budget, work-life balance Occurrence of ill health

Source: Foresight, 2007⁵

Children: healthy growth and healthy weight

The best long-term approach to tackling overweight and obesity is prevention from childhood. Preventing overweight and obesity in children is critical, particularly through improving diet and increasing physical activity levels. The National Heart Forum's *young@heart* initiative highlighted the links between overweight and obesity in children and the subsequent development of diabetes and coronary heart disease.⁸⁸ It emphasised the importance of a life course approach which focuses on ensuring good infant feeding (breastfed babies may be less likely to develop obesity later in childhood⁸⁹) and nutrition during pregnancy, as well as working with adolescents to support the healthy physical development of future mothers.⁸⁸

Pre-conception and antenatal care

Up to 50% of pregnancies are likely to be unplanned,⁹⁰ so all women of childbearing age need to be aware of the importance of a healthy diet. Nutritional interventions for women who are – or who plan to become – pregnant are likely to have the greatest effect if delivered before conception and during the first 12 weeks. A healthy diet is important for both the baby and mother throughout pregnancy and after the birth.⁹⁰ Action should therefore include providing women with information on the benefits of a healthy diet.

Women who are overweight or obese before they conceive have an increased risk of complications during pregnancy and birth. This poses health risks for both mother and baby in the longer term.⁹¹ There is also evidence that maternal obesity is related to health inequalities, particularly socioeconomic deprivation, inequalities within minority ethnic groups and poor access to maternity services.⁹² Action should therefore include promoting, to women who are trying to conceive, the benefits of a healthy weight, informing them about the risks associated with obesity during pregnancy, and signposting women to services where appropriate.

To help support overweight/obese pregnant women, the Child Health Promotion Programme (CHPP) includes measures for the early identification of risk factors and prevention of obesity in pregnancy and the first years of life. In addition, the Family Nurse Partnership offers advice, to parents who are most at risk of excess weight, on how to adopt a healthier lifestyle.

Breastfeeding and infant nutrition

The World Health Organization and the Department of Health recommend exclusive breastfeeding for the first six months of an infant's life.⁹³ Evidence suggests that mothers who breastfeed provide their child with protection against excess weight in later life,⁹⁴ and that their children are less likely to develop type 1 diabetes, and gastric, respiratory and urinary tract infections, and are less likely to suffer from allergies such as eczema, or asthma.⁹⁵⁻⁹⁷ For the mother, there is evidence to suggest that breastfeeding increases the likelihood of returning to their pre-pregnancy weight.⁹⁸ Action should therefore include the encouragement of exclusive breastfeeding for six months of an infant's life and the provision of breastfeeding information and support for new mothers. To improve the UK's breastfeeding rate, the Department of Health has set up the National Breastfeeding Helpline which offers support for breastfeeding mothers, and through extra funding is helping to support hospitals in disadvantaged areas to achieve Unicef Baby Friendly Status, a set of best practice standards for maternity units and community services on improving practice to promote, protect and support breastfeeding.

Six months is the recommended age for the introduction of solid foods because by that age infants need more iron and other nutrients than milk alone can provide.⁹⁹ Guidance from NICE⁹⁰ makes the following recommendations for health professionals on how to help parents and carers provide a healthy, balanced diet for babies and young children.

- Support mothers to continue breastfeeding for as long as they choose.
- Encourage parents and carers to offer infants aged six months and over home-prepared foods, without adding salt, sugar or honey, and snacks free of salt and added sugar between meals.
- Encourage parents and carers to set a good example by the food choices they make for themselves. Also encourage families to eat together. Advise parents and carers not to leave infants alone when they are eating or drinking.
- Discourage parents and carers from adding sugar or any solid food to bottle feeds. Discourage them from offering baby juices or sugary drinks at bedtime.
- Provide parents and carers with practical support and advice on how to introduce the infant to a variety of nutritious foods (in addition to milk) as part of a progressively varied diet, when they are six months and over.

Early years

The pre-school years are an ideal time to establish the foundation for a healthy lifestyle. Parents are primarily responsible for their child's nutrition and activity during these years, but childcare providers also play an important role.

General dietary guidelines for adults do not apply to children under 2 years. Between 2 and 5 years the timing and extent of dietary change is flexible. By 5 years, children should be consuming a diet consistent with the general recommendations for adults (except for portion sizes). (See Table 7 on page 40.)

Providing healthy, balanced and nutritious meals, controlling portion sizes and limiting snacking on foods high in fat and sugar in the early years can all help to prevent children becoming overweight or obese. The Caroline Walker Trust provides guidelines for food provision in childcare settings (such as day-care centres, crèches, childminders and nursery schools) to encourage healthy eating from an early age.¹⁰⁰ The Early Years Foundation Stage (EYFS)¹⁰¹ sets down a requirement that, where children are provided with meals, snacks and drinks, these must be healthy, balanced and nutritious. In addition, NICE guidance⁹⁰ sets out the following recommendations for healthy eating in childcare and pre-school settings.

- Offer breastfeeding mothers the opportunity to breastfeed and encourage them to bring in expressed breast milk.
- Ensure food and drink made available during the day reinforces teaching about healthy eating. Between meals offer snacks that are low in added sugar, honey and salt (for example, fruit, milk, bread, and sandwiches with savoury fillings).
- Encourage children to handle and taste a wide range of foods making up a healthy diet.
- Ensure carers eat with children whenever possible.

There are no government guidelines for the provision of physical activity in pre-schools. However, recommendations have been made by the Department of Health¹ and NICE⁶ to encourage regular opportunities for enjoyable active play and structured physical activity sessions within nurseries and other childcare facilities to help prevent overweight and obesity. Furthermore, the EYFS includes a requirement that children must be supported in developing an understanding of the importance of physical activity and making healthy choices in relation to food.¹⁰¹

Schools

During their school years, people often develop life-long patterns of behaviour that affect their ability to keep to a healthy weight. Schools play an important role in this by providing opportunities for children to be active and to develop healthy eating habits. NICE recommends that overweight and obesity can be tackled in schools by assessing the whole-school environment and ensuring 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.⁶ In promoting healthy weight through a whole-school approach, all schools are expected to offer access to extended schools by 2010, providing a core range of activities from 8am to 6pm, all year round. This can include breakfast clubs, parenting classes, cookery classes, food co-ops, sports clubs and use of leisure facilities.

Psychological issues

A number of psychological issues impact on overweight and obesity. These can include low self-esteem and poor self-concept and body image. It is important to tackle the behaviour which increases overweight and obesity, and programme designers should be very careful not to inadvertently stigmatise individuals.¹⁸ Studies have shown that overweight and obesity are frequently stigmatised in industrialised societies, and they emphasise the importance of family and peer attitudes in the generation of psychological distress in overweight and obese children.¹⁰² When working with children, it is particularly important to work with the whole family, not just the child.¹⁰² Children often do not make their own decisions about what and how much they eat. Their parents will influence what they eat and any of the parents' own food issues (such as over-eating, anorexia or body image) can impact on the food available to the child and on the child's subsequent relationship with food. In many cases children may be quite happy being overweight and not experiencing any psychological ill effects from it, until they are taken by their parents to seek treatment, when they may begin to feel that there is something wrong with them, triggering emotional problems.¹⁰³

Promoting healthier food choices

The recommendations for promoting a healthy, balanced diet are presented in *Choosing a better diet: A food and health action plan*⁸⁹ and also in the NICE guideline *Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children*.⁶ They are based on the recommendations of the Committee on Medical Aspects of Food and Nutrition Policy (COMA), the Scientific Advisory Committee on Nutrition (SACN), and the World Health Organization (WHO). (See Table 7 below.)

Table 7 Standard population dietary recommendations

	Recommendation	Current levels	
Total fat ⁸⁹	Reduce to no more than 35% of food energy	38.5% ¹⁰⁴	
Saturated fat ⁸⁹	Reduce to no more than 11% of food energy	14.7% ¹⁰⁴	
Total carbohydrate ⁸⁹	Increase to more than 50% of food energy	47.2% ¹⁰⁴	
Sugars (added) ⁸⁹	Reduce to more than 11% of food energy (no more than 10% of total dietary energy)	14.2% of food energy ¹⁰⁴	
Dietary fibre ⁸⁹	Increase the average intake of dietary fibre to 18g per day	15.6g per day ¹⁰⁴	
Salt ¹⁰⁵	Adults: No more than 6g of salt per day	8.6g per day ¹⁰⁶	
	Infants and children: Daily recommended maximum salt intakes:	Boys	Girls
	0-6 months – less than 1g per day	Breast milk will provide all the sodium necessary ¹⁰⁷	
	7-12 months – maximum of 1g per day	0.8g per day ¹⁰⁷	
	1-3 years – maximum of 2g per day	1.4g per day ¹⁰⁸	
	4-6 years – maximum of 3g per day	5.3g per day ¹⁰⁹	4.7g per day ¹⁰⁹
	7-10 years – maximum of 5g per day	6.1g per day ¹⁰⁹	5.5g per day ¹⁰⁹
	11-14 years – maximum of 6g per day	6.9g per day ¹⁰⁹	5.8g per day ¹⁰⁹
Fruit and vegetables ⁸⁹	Increase to at least 5 portions of a variety of fruit and vegetables per day	Adults: 3.8 portions per day ¹⁰ Men: 3.6 portions per day Women: 3.9 portions per day Children (5-15 years): 3.3 portions per day ¹¹ Boys: 3.2 portions a day Girls: 3.4 portions a day	
Alcohol ^{110, 111}	Men: A maximum of between 3 and 4 units of alcohol a day Women: A maximum of between 2 and 3 units of alcohol a day	Men: 18.1 mean units per week ⁹ Women: 7.4 mean units per week ⁹	

Note: With the exception of alcohol, standard UK population recommendations on healthy eating are based on the recommendations of the Committee on Medical Aspects of Food Policy (COMA), the Scientific Advisory Committee on Nutrition (SACN) and the World Health Organization (WHO).

Action to prevent overweight and obesity should include the promotion of lower-calorie alternatives (ie reducing total fat and sugar consumption), and the consumption of more fruit and vegetables, as this not only offers a way of stoking up on less energy-dense food but also has important health benefits particularly in terms of helping to prevent some of the main co-morbidities of obesity – namely cardiovascular disease and cancer. A reduction in salt is also important. Salt is often used to make fatty foods more palatable, so cutting back on salt will help people to cut back on fats, and will also contribute to lowering high blood pressure, which is another co-morbidity of obesity. This advice on healthy eating is reflected in the national food guide, in *The eatwell plate* (see Figure 7 below).

The Government recommends that all healthy individuals over the age of five years eat a healthy, balanced diet that is rich in fruits, vegetables and starchy foods. *The eatwell plate* shown in Figure 7 is a pictorial representation of the recommended balance of the different food groups in the diet. It aims to encourage people to choose the right balance and variety of foods to help them obtain the wide range of nutrients they need to stay healthy. A healthy, balanced diet should:

- include plenty of fruit and vegetables – aim for at least 5 portions a day of a variety of different types
- include meals based on starchy foods, such as bread, pasta, rice and potatoes (including high-fibre varieties where possible)
- include moderate amounts of milk and dairy products – choosing low-fat options where possible
- include moderate amounts of foods that are good sources of protein – such as meat, fish, eggs, beans and lentils, and
- be low in foods that are high in fat, especially saturated fat, high in sugar and high in salt.

Figure 7 The eatwell plate



National action

Examples of current national action include the 5 A DAY programme which aims to increase access to and consumption of fruit and vegetables; the Food in Schools programme which promotes a whole-school approach and encourages greater access to healthier choices within schools; and work with industry to address the amount of fat, salt and added sugar in the diet (eg through food labelling, and signposting the nutrient content of food on packaging labels).

For further information, see *Healthy Weight, Healthy Lives: Guidance for local areas*.²

Local action

There is a wide range of potentially effective population-based interventions in a variety of settings, from promoting breastfeeding by new mothers to campaigns to persuade shopkeepers to stock fruit and vegetables in areas where access would otherwise be difficult (so-called 'food deserts').



Tool D8 provides details of interventions to promote healthier food choices in a variety of different settings.

Building physical activity into our lives

The recommendations for active living throughout the life course are presented in *Choosing activity: A physical activity action plan*,¹¹² which aims to promote activity for all, in accordance with the evidence and recommendations set out in the Chief Medical Officer's report, *At least five a week*.¹¹³ (See Table 8 below.)

Table 8 Physical activity government recommendations

Recommendation	Percentage meeting current recommendations
Children and young people ¹¹³	
For general health benefits from a physically active lifestyle, children and young people should achieve a total of at least 60 minutes of at least moderate intensity physical activity each day. At least twice a week this should include activities to improve bone health (activities that produce high physical stresses on the bones), muscle strength and flexibility. The PSA target for the Department for Culture, Media and Sport and the Department for Education and Skills (now the Department for Children, Schools and Families) to increase the percentage of schoolchildren doing 2 hours' high-quality PE each week to 85% by 2008 has been met.¹¹⁴ The Government is now aiming to offer every child and young person (aged 5-19) an extra 3 hours per week of sporting activities provided through schools, colleges, clubs and community providers, by 2011.¹¹⁵	Children (2-15 years)¹¹ All children: 65% Boys: 70% Girls: 59%
Adults ¹¹³	
For cardiovascular health, adults should achieve a total of at least 30 minutes of at least moderate intensity physical activity a day, on five or more days a week. More specific activity recommendations for adults are made for beneficial effects for individual diseases and conditions. All movement contributes to energy expenditure and is important for weight management. To prevent obesity, in the absence of an energy intake reduction, 45-60 minutes of moderate intensity physical activity on at least five days of the week may be needed. For bone health, activities that produce high physical stresses on the bones are necessary. The Legacy Action Plan set a goal of seeing two million people more active by 2012 through focused investment in sporting infrastructure and better support and information for people wanting to be more active.¹¹⁶	Adults (16-75+ years)¹⁰ All adults: 34% Men: 40% Women: 28%
Older people ¹¹³	
The recommendations given above for adults are also appropriate for older adults. Older people should take particular care to keep moving and retain their mobility through daily activity. Additionally, specific activities that promote improved strength, coordination and balance are particularly beneficial for older people.	Adults aged 65-74 years¹¹ All adults: 19% Men: 21% Women: 16% Adults aged 75+ years¹¹ All adults: 6% Men: 9% Women: 4%
The recommended levels of activity can be achieved either by doing all the daily activity in one session, or through several shorter bouts of activity of 10 minutes or more. The activity can be lifestyle activity (activities that are performed as part of everyday life), or structured exercise or sport, or a combination of these.¹¹³	

Action to prevent overweight and obesity should include promoting everyday participation in physical activity such as brisk walking, stair-climbing or active travel (building in a walk, cycling to work, or getting off a bus or train a stop earlier). Other activities such as active conservation, gardening and activities that take place in the natural environment have psychological as well as physical health benefits.

Action should also include the promotion of a supportive built environment to encourage active travel such as cycling and walking, to encourage the use of parks and green spaces, and to encourage opportunities for active and unstructured play. Guidance from NICE sets out recommendations on how to improve the physical environment in order to encourage and support physical activity.¹¹⁷ The guidance emphasises that environmental factors need to be tackled in order to make it easier for people to be active in their daily lives. The recommendations include ensuring that:

- planning applications for new developments always prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life
- pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads (this includes people whose mobility is impaired)
- open spaces and public paths can be reached on foot or by bicycle, and are maintained to a high standard
- new workplaces are linked to walking and cycling networks
- staircases are attractive to use and clearly signposted to encourage people to use them, and
- playgrounds are designed to encourage varied and physically active play.

Other important action includes advice to decrease sedentary behaviour such as watching television or playing computer games and to consider alternatives such as dance, football or walking.

Recommendations to support practitioners in delivering effective interventions to increase physical activity, including brief advice in primary care, have been developed by NICE.⁶ Action already underway in primary care includes the following.

- Patients who lead inactive lifestyles and are at risk of cardiovascular disease can receive advice and support on physical activity during visits to their local GP, as part of a new approach that is being piloted in London surgeries.
- The Department of Health is developing a *Let's get moving* support pack for patients which relies on collaborative work between local authorities and PCTs to meet the needs of people in the community. This pack supports behaviour change and signposts people to both outdoor and indoor opportunities for physical activity, in an effort to encourage those most at risk of inactive lifestyles to become more active. Based on evidence from the NICE guidance on brief interventions to increase physical activity, and using the General Practitioners' Physical Activity Questionnaire and motivational interviewing techniques, the *Let's get moving* physical activity care pathway model is being evaluated in terms of cost and feasibility. This is with a view to adopting the care pathway in GP practices throughout England from early 2009.

National action

Examples of current national action include the National Step-o-Meter Programme which aims to increase levels of walking in sedentary, hard-to-reach and 'at-risk' groups, and the free swimming initiative which is designed to extend opportunities to swim and to maximise the health benefits of wider participation in swimming.¹¹⁶ In addition, the Government is promoting active play through the Play Strategy.¹¹⁸

For further information, see *Healthy Weight, Healthy Lives: Guidance for local areas*.²

Local action

Population-based approaches at local level range from targeting children at home and school by promoting active play and building more physical education and sports sessions into the curriculum and after school, to targeting adults in the workplace by providing facilities such as showers and bike parks to encourage walking or cycling to work.

Cycle training is an important life skill. The Government wants parents, schools and local authorities to play their part in helping as many children as possible to get their Bikeability award. Cycling England grants have been given to local authorities and school sports partnerships to support Level 2 Bikeability training for some 46,000 children. A key part of the next phase of Cycling England's programme will be to work with more local authorities to increase Bikeability training across England.

Local Exercise Action Pilots (LEAPs) were locally run pilot programmes to test and evaluate new ways of encouraging people to take up more physical activity. Useful evaluation information on the different pilots is available at www.dh.gov.uk



Tool D8 provides details of interventions to increase physical activity in a variety of different settings.

Creating incentives for better health

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.⁶

Guidance from NICE sets out recommendations on how workplaces can 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.⁶

NICE recommended that 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 be part of a wider programme to support staff in managing weight, improving diet and increasing activity levels.⁶

National action

Well@Work pilots have been set up to test ways of making workplaces healthier and more active. Also, the Department for Transport is promoting travel planning which encourages schools, workplaces and communities to consider sustainable travel options which also increase physical activity.

Personalised support for overweight and obese individuals

As well as preventive measures, the situation of those who are already overweight or obese also needs to be considered as a crucial element of any strategy. The number of overweight and obese individuals is forecast to continue rising, so it is imperative that effective services are available to help these people to meet the personal challenge of reducing their BMI and maintaining a healthy weight.²

Many people currently choose to face the challenge of losing or maintaining weight alone or with the assistance of commercial weight management organisations. However, the NHS is perfectly placed to identify overweight and obesity, provide advice on healthy lifestyles and refer individuals to weight management services (NHS and non-NHS based). In addition, the third sector, social enterprises (businesses with primarily social objectives) and other providers are increasingly playing an important role in ensuring that more individuals can access effective weight management services.

However, primary care trusts and local authorities need to commission more weight management services in order to support overweight and obese individuals, particularly children, in moving towards a healthy weight. This will ensure that a greater number of children and their families have access to appropriate support.²

Identification of overweight and obesity

Assessing whether an individual is overweight or obese is undertaken primarily by primary care practitioners such as GPs, practice nurses, health visitors, community nurses, community dietitians, midwives and community pharmacists. To ensure that there is a systematic approach to the assessment and management of overweight and obesity, clinical guidance has been established.

Clinical guidance

Examples of guidance available are shown in Table 9 on the next page. However, two to note in England are from the National Institute for Health and Clinical Excellence (NICE) and the Department of Health:

- NICE has developed evidence-based guidance for the prevention, identification, assessment and management of overweight and obesity in children and adults.⁶ The guidance is broad, focusing on clinical and non-clinical management with the following aims: a) to stem the rising prevalence of obesity and diseases associated with it; b) to increase the effectiveness of interventions to prevent overweight and obesity; and c) to improve the care provided to obese adults and children, particularly in primary care. The NICE guideline on obesity also provides guidance on the use of the anti-obesity drugs orlistat and sibutramine, and on the place of surgical treatment for children and adults. (Drug treatment is generally not recommended for children under 12 years.)⁶ Guidance on the anti-obesity drug rimonabant for adults only is also available in a separate document.¹¹⁹
- The Department of Health has also developed evidence-based guidance for use in England. This has been produced to support primary care clinicians to identify and treat children, young people and adults who are overweight or obese.¹²⁰

Clinical care pathways are included within these sets of guidance. They direct healthcare professionals to appropriate measures for assessing and managing overweight and obesity. The Department of Health's care pathways are targeted exclusively at primary care clinicians in England. There is one for use with children and young people and one for use with adults.¹²⁰ NICE has developed much broader clinical care pathways, one for use with children and one for use

with adults.⁶ These pathways focus on the assessment and management of overweight and obesity in primary, secondary and tertiary care. NICE has also taken into account the prevention and management of overweight and obesity in non-NHS settings such as schools, workplaces and the broader environment.



Refer healthcare professionals to **Tool E1 Clinical care pathways**

Table 9 Clinical guidance for managing overweight and obesity in adults, children and young people

	Adults	Children and young people
England	National Institute for Health and Clinical Excellence (NICE) (2006) ⁶ www.nice.org.uk Department of Health (2006) ¹²⁰ www.dh.gov.uk	National Institute for Health and Clinical Excellence (NICE) (2006) ⁶ www.nice.org.uk Department of Health (2006) ¹²⁰ www.dh.gov.uk
United Kingdom	Prodigy Knowledge (2001) ¹²¹ www.prodigy.nhs.uk/obesity National Obesity Forum (2004) ¹²³ www.nationalobesityforum.org.uk National Obesity Forum (2005) ¹²⁴ www.nationalobesityforum.org.uk	Royal College of Paediatrics and Child Health and National Obesity Forum (2004) ¹²² www.rcpch.ac.uk
Scotland	Scottish Intercollegiate Guidelines Network (SIGN) (1996) ⁶⁶ www.sign.ac.uk Note: This guidance is currently under review.	Scottish Intercollegiate Guidelines Network (SIGN) (2003) ²³ www.sign.ac.uk
United States	National Heart, Lung and Blood Institute (1998) ¹²⁵ www.nhlbi.nih.gov	
Australia	National Health and Medical Research Council (2003) ¹²⁶ www.health.gov.au	National Health and Medical Research Council (2003) ¹²⁷ www.health.gov.au

Assessment

The important aspect of assessment is that people with greatest clinical need are prioritised and offered systematic weight management. This can be in both NHS and non-NHS settings. This is a substantial task and practices will need appropriate support from PCTs and strategic health authorities.

It is essential that practices not only record patients' weight details as outlined in clinical guidance, but also maintain a register of these patients including their risk factors. As an incentive to record and store this information, participating practices can use the Quality Management and Analysis System (QMAS) central database. This can also be used for local epidemiological analysis. Furthermore, the addition of obesity to the Quality and Outcomes Framework (QOF) is another incentive for GP surgeries to maintain a register of patients who are obese. Eight points are offered to those surgeries who do record adults' weight details.



Refer healthcare professionals to:

Tool E2 *Early identification of patients*

Tool E3 *Measurement and assessment of overweight and obesity – ADULTS*

Tool E4 *Measurement and assessment of overweight and obesity – CHILDREN*

Provision of advice

The Government is looking to provide general healthcare advice to the population through updating the NHS Choices website (see www.nhs.uk), and also through the national social marketing campaign (see page 142). However, healthcare professionals clearly have an extremely important role to play in the provision of advice on healthier lifestyles, and commissioners will want to be assured that this advice is being given.

NICE has identified that healthcare professionals play an important and highly cost-effective role in providing brief advice on physical activity in primary care. They recommend that primary care practitioners should take the opportunity, whenever possible, to identify inactive adults and to advise them to aim for 30 minutes of moderate activity on five days of the week (or more).¹²⁸

It is not only GPs who can provide advice to overweight or obese individuals. Healthcare professionals in a range of settings play an important role. Examples may include: practice nurses; dentists who provide support relating to oral health; health trainers who work within communities promoting healthy lifestyles; and pharmacists who come into contact with patients who may not seek advice from their GP. The Royal Pharmaceutical Society of Great Britain¹²⁹ has produced guidance for community pharmacists who provide advice on overweight and obesity. See www.rpsgb.org.uk

The Government has recognised the importance of developing the advice-giving role of health professionals, in order to improve local services to patients. Research undertaken for the *Choosing health*⁸ consultation found that some healthcare professionals, including GPs, were uncomfortable about raising the issue of weight with patients. They lacked confidence when it came to giving patients advice and also they were unaware of what weight loss services were available. Improving the training of front-line primary care staff – in terms of nutrition, physical activity and helping patients to change lifestyles – is an important requirement. In addition, knowing where to access resources for patients, supplying useful literature and providing correct information are crucial for an effective and efficient advice service.



Refer healthcare professionals to:

Tool E5 *Raising the issue of weight – Department of Health advice*

Tool E6 *Raising the issue of weight – perceptions of overweight healthcare professionals and overweight people*

Tool E7 *Leaflets and booklets for patients*

Tool E8 *FAQs on childhood obesity*

Tool E9 *The National Child Measurement Programme (NCMP)*

Note: Dietitians in Obesity Management UK (DOM UK)¹³⁰ have produced a directory providing details of a range of training. The directory specifically targets obesity management and provides contact details of trainers. This directory is currently being updated. The new version will be available by Spring 2009.

Referral to services

A range of practitioners are required to refer overweight and obese children and adults to appropriate services, such as weight management programmes. Three examples of programmes and schemes to which practitioners might refer overweight or obese children and adults are given below, followed by the relevant NICE guidance about them.

1 Exercise referral schemes

Following on from assessment, some patients may benefit from an exercise referral. The Department of Health has published a National Quality Assurance Framework for exercise referral schemes.¹³¹ This provides guidelines with the aim of improving standards among existing exercise referral schemes, and helping the development of new ones. The Framework focuses primarily on the most common model of exercise referral system, where the GP or practice nurse refers patients to facilities such as leisure centres or gyms for supervised exercise programmes. The National Quality Assurance Framework provides a range of tools for use in both primary and secondary prevention. See www.dh.gov.uk

Note: NICE guidance on exercise referral schemes¹²⁸ – The Public Health Independent Advisory Committee (PHIAC) determined that there was insufficient evidence to recommend the use of exercise referral schemes to promote physical activity other than as part of research studies where their effectiveness can be evaluated. NICE recommends that practitioners, policy makers and commissioners should only endorse exercise referral schemes to promote physical activity if they are part of a properly designed and controlled research study to determine effectiveness. Measures should include intermediate outcomes such as knowledge, attitudes and skills, as well as measures of physical activity levels. Individuals should only be referred to schemes that are part of such a study.¹²⁸

2 Walking and cycling schemes

Primary care teams may also consider referring patients directly to walking or cycling programmes.

The Walking the Way to Health Initiative (WHI) of the British Heart Foundation and the Countryside Agency aims to improve the health and fitness of people who do little exercise or who live in areas of poor health. The scheme offers local walks in a wide variety of areas. The National Step-O-Meter Programme (NSP), managed by the Countryside Agency, aims to make it possible for NHS patients (especially those who take little exercise) to have the use of a step-o-meter (pedometer) free of charge for a limited loan period. Step-o-meters are being made available to patients through health professionals. For more information about WHI and NSP see www.whi.org.uk

Cycling referral programmes are a relatively new innovation, but can be useful for people who prefer cycling to walking or gym-based exercise. For more information, *Health on wheels: A guide to developing cycling referral projects*¹³² is available from Cycling England. See www.cyclingengland.co.uk

Note: NICE guidance on pedometers, walking and cycling schemes¹²⁸ – PHIAC determined that there was insufficient evidence to recommend the use of pedometers and walking and cycling schemes to promote physical activity, other than as part of research studies where effectiveness

can be evaluated. However, they concluded that professionals should continue to promote walking and cycling (along with other forms of physical activity such as gardening, household activities and recreational activities), as a means of incorporating regular physical activity into people's daily lives.

NICE recommends that practitioners, policy makers and commissioners should only endorse pedometer schemes and walking and cycling schemes to promote physical activity if they are part of a properly designed and controlled research study to determine effectiveness. Measures should include intermediate outcomes such as knowledge, attitudes and skills, as well as measures of physical activity levels.

3 *Weight control groups and 'weight management on referral' (or 'slimming on referral')*

Other examples of interventions to manage overweight and obesity are weight control groups and, more recently, weight management on referral schemes. Many weight control groups have been set up as part of PCT local obesity programmes. Following an assessment of the patient and if appropriate, the GP refers the patient to a local group.

A number of PCTs are also working with commercial slimming organisations to implement weight management on referral schemes for adults.

Note: NICE guidance on weight management on referral schemes⁶ – NICE suggests that 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 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 0.5-1kg
- focusing on long-term lifestyle changes rather than a short-term, quick-fix approach
- being multi-component, 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.

Commissioning and delivery of interventions

The Government is supporting the commissioning of more weight management services in local areas. More services are needed to support overweight and obese individuals, particularly children, in moving towards a healthier weight. NICE provides guidance on the types of services to be commissioned. It states that interventions for children should be multi-component – covering healthy eating, increased physical activity and behaviour change – and should also involve parents and carers.⁶ These guidelines should be followed. Some examples of services that practitioners can refer children and adults to are given on page 50.



Refer to **Tool D12** *Commissioning weight management services for children, young people and families.*

The challenge and the opportunities

- One of the greatest challenges is to make therapeutic weight management in everyday primary care practicable, effective and sustainable. Research into primary care management in the UK¹³³ found that, although 55% of respondents believed that obesity was one of their top priorities, fewer than half had been involved in setting up weight management clinics, and the majority of general practices (69%) had not established such clinics.
- The Quality and Outcomes Framework (QOF) for the GP contract^{134, 135} provides incentives for assessing BMI and associated risk factors.
- *Choosing health through pharmacy: A programme for pharmaceutical public health 2005-2015*¹³⁶ lists 10 key public health roles for pharmacy, one of which is to reduce obesity among children and the population as a whole. Community pharmacists and their staff can play an important role in providing targeted information and advice on diet and physical activity and offering weight reduction programmes. Pharmacies will also be able to refer people directly on to 'exercise on referral schemes' rather than indirectly through GPs.¹²⁹ Overweight and obesity are issues related to inequalities, and community pharmacies are particularly well located to assist with weight management, as many of them are based close to residential areas and have few physical and psychological barriers related to access.
- The role of health trainers, as outlined in *Choosing health: Making healthy choices easier*⁸ is to provide personalised healthy lifestyle plans for individuals to improve their health and prevent disease. Health trainers will be either lay people drawn from the more disadvantaged communities, or health and other professionals specially trained in offering basic advice on healthy lifestyles, and motivational counselling.
- The Government also recognises the vital role played by the commercial sector, the third sector, social enterprises and other providers in ensuring that more people can access effective services and in increasing national understanding of what works.



Developing a local overweight and obesity strategy

This section of the toolkit provides a practical guide to help commissioners in primary care trusts (PCTs) and local authorities develop a local strategy that fits into the framework for local action published in *Healthy Weight, Healthy Lives: Guidance for local areas*.²

The framework has five sections:

- **Understanding the problem in your area and setting local goals** outlines how to estimate local prevalence of obesity among children and adults, how to estimate the local cost of obesity and how to identify priority groups and set local goals.
- **Local leadership** outlines the importance of a multi-agency approach to tackling obesity. It also discusses the significance of a senior-level lead to coordinate activity and details how to bring partners together through a sub-committee or partnership board.
- **Choosing interventions** provides details on how to plan specific interventions to achieve local targets of reducing overweight and obesity by changing families' attitudes and behaviours. It also provides details on how to commission services.
- **Monitoring and evaluation** outlines the importance of monitoring and evaluation and details the key elements of a successful evaluation strategy.
- **Building local capabilities** provides details on how to commission training to support staff in promoting physical activity, good nutrition and the benefits of a healthy weight.

Figure 8 on page 56 indicates how the tools in section D can help commissioners to further develop each section.

World Class Commissioning

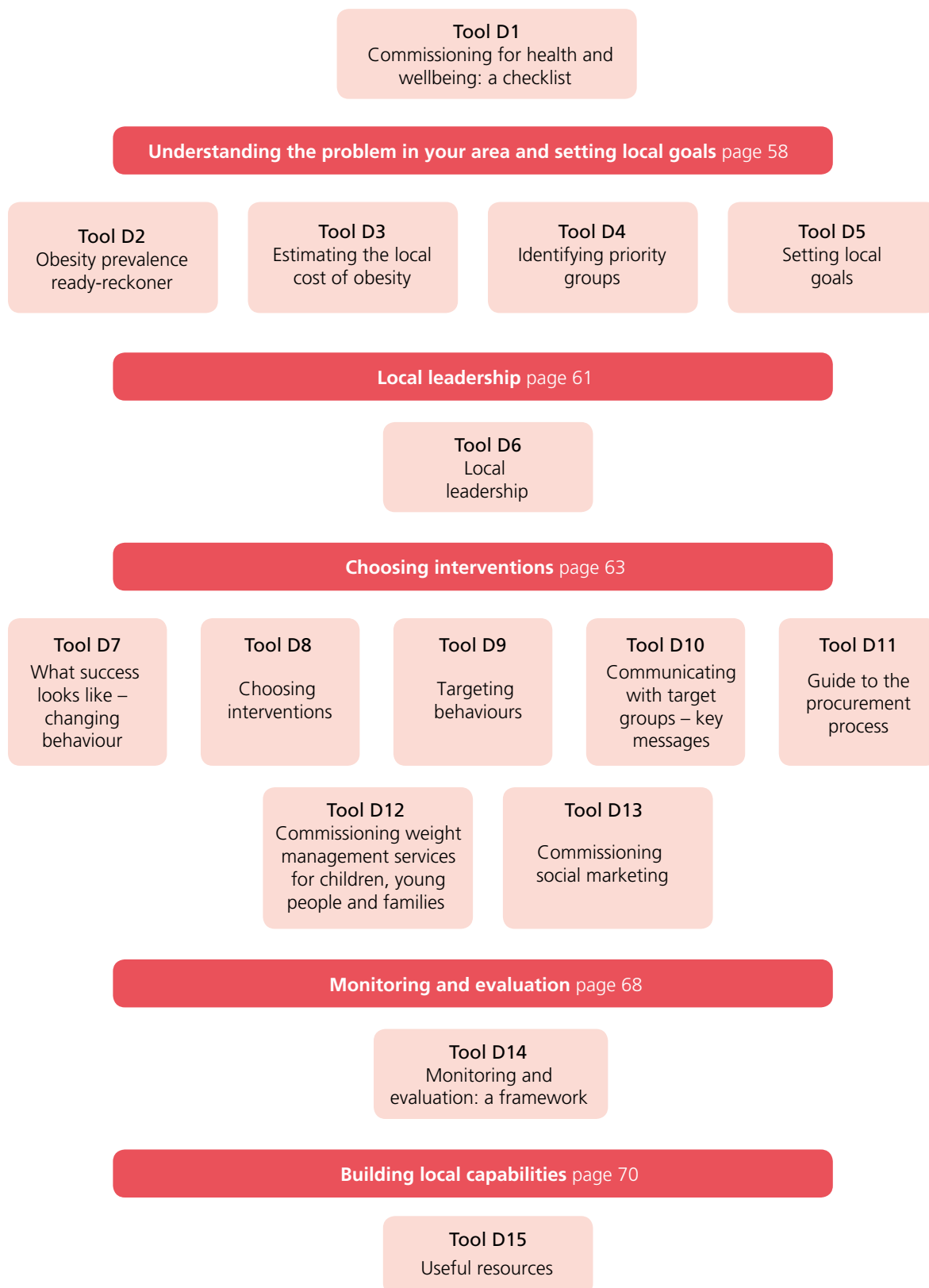
This toolkit is aimed at commissioners and as such all the tools in section D are designed to support different stages of the commissioning process. Indeed the five steps that are set out in *Healthy Weight, Healthy Lives: Guidance for local areas*² represent a simplified version of the different stages of commissioning that the World Class Commissioning programme sets out.

Local areas will find it valuable to read this toolkit in conjunction with World Class Commissioning publications, which can be found at www.dh.gov.uk



Tool D1 is a checklist of steps to take to help ensure the World Class Commissioning of health and wellbeing services.

Figure 8 A 'road map' for developing a local overweight and obesity strategy



Child obesity: a local priority

The NHS Operating Framework requires all PCTs to develop plans to tackle child obesity, and to agree local plans with strategic health authorities (SHAs). In addition, within the Local Area Agreement (LAA) National Indicator Set (NIS),¹³⁷ there are two indicators specifically on child obesity:

- **NI 55** – obesity among primary school age children in Reception, and
- **NI 56** – obesity among primary school age children in Year 6.

These align with the Vital Signs¹³⁸ indicator on child obesity.

There are also other indicators within the NIS that are relevant to tackling child obesity and that work towards the national ambition. These include: breastfeeding (**NI 53**), take-up of school lunches (**NI 52**), the emotional health of children (**NI 50**), children and young people's participation in high-quality physical education and sport (**NI 57**), and travel to school (**NI 198**).

Several indicators within the NIS are relevant to adult weight issues, including adult participation in sport (**NI 8**). Indicators relating to a reduction in road traffic accidents (**NI 47** and **NI 48**) are relevant to producing a safe environment and thus to physical activity and weight management in both children and adults.

Tool D5 *Setting local goals* provides a list of national indicators relevant to tackling obesity.



Understanding the problem in your area and setting local goals

At the start of developing a local strategy to tackle overweight and obesity, local areas need to know what the problem is in terms of prevalence and costs, who the priority groups are and what reduction in prevalence they need to aim for.

An obesity strategy should be built on an understanding of the problem in your area. Local organisations should therefore seek to obtain insight on:

- the local prevalence of overweight and obesity
- the local cost of overweight and obesity now, and in the future if no further steps are taken, and
- the priority groups who drive the costs.

Completing these steps will help primary care trusts (PCTs) and local authorities to set clear local goals.

The local prevalence of overweight and obesity

Estimating the prevalence of overweight and obesity among children

Local (PCT and local authority) prevalence data for children in Reception and Year 6 can be obtained through the National Child Measurement Programme (NCMP). Established in 2005, the NCMP is one element of the Government's work programme on childhood obesity, and is operated jointly by the Department of Health and the Department for Children, Schools and Families. Every school year, children in Reception (4-5 year olds) and Year 6 (10-11 year olds) are weighed and measured to inform local planning and delivery services for children, and to gather population-level surveillance data to allow analysis of trends in growth patterns and obesity. The programme also seeks to raise awareness of the importance of healthy weight in children. The most recent results, which are broken down to PCT level, can be downloaded from www.ic.nhs.uk

Note: See www.dh.gov.uk for guidance to PCTs on arrangements for measuring the height and weight of primary and middle school children as part of the NCMP, and for advice on how to upload the information to the Information Centre for health and social care.¹³⁹ Guidance has been developed for schools¹⁴⁰ and is available at www.teachernet.gov.uk

The NCMP only provides data for children aged 4-5 and 10-11. To estimate the local prevalence of obesity across different age ranges, child overweight and obesity prevalence data for strategic health authorities/government office regions can be obtained through the Health Survey for England starting from 2006.¹¹



Tool D2 is a ready-reckoner which will help you estimate the prevalence of obesity among children aged 1-15 years in your local area, using the UK National BMI Percentile Classification.

Estimating the prevalence of overweight and obesity among adults

The Health Survey for England provides data on the proportion of adults who are overweight and obese. Robust estimates of adult obesity at strategic health authority level are available based on three-year rolling averages. These data can be applied to the local demographic profile of a PCT to calculate an estimate of prevalence.



Tool D2 is a ready-reckoner to help you estimate the prevalence of obesity among adults in your local area.

Local cost of obesity

Estimating the local cost of obesity

As with all public health challenges, the majority of the costs of obesity (and also the benefits from tackling it) fall in the future. Therefore to make the case for investing now to achieve benefit in the future, it is necessary to estimate these future costs. However, estimating the costs of overweight and obesity at local level is difficult, and depends on:

- the degree of complexity used in modelling
- the validity of the various assumptions used in calculations
- the clinical guidelines and prescribing regimes followed, and
- the current costs of drugs.

Approximate values can be derived by applying national figures to the local estimates of prevalence, as calculated using the process described in **Tool D2**.



Tool D3 provides the costs of obesity and elevated BMI (overweight plus obesity) to primary care trusts, based on national estimates of costs calculated by Foresight (selected years 2007, 2010 and 2015) and the national resource allocation formula which is based on local needs.

Identifying priority groups

Prioritising families with children aged 2-11

Local priority should be given to children and young people under 11, as stated in the Child Health PSA (see page 35). Data from the National Child Measurement Programme (NCMP) will enable PCTs, local authorities and other partners to gain a better understanding of children's needs in their area. This will enable local organisations to target resources and interventions to those parts of their local area where resources and interventions are most needed, and ensure efforts are directed more effectively. The data will also allow for national analysis of trends in obesity. Go to www.dh.gov.uk for guidance on how to weigh and measure children, other NCMP resources, and for information on giving parents their child's results.

Another way of helping to prioritise groups locally is by using the Department of Health's research into family behaviour in relation to diet and activity. The purpose of this research is to better understand the behaviours that can lead to obesity, and so future ill-health, and to understand which behaviours are common within different groups or clusters in society. This 'segmentation' analysis showed that children aged 2-11 years and their families could be divided into six clusters based on their behaviours. Of these, three clusters were found to be most 'at risk' of developing obesity – and indeed these clusters had the highest rates of adult and child obesity – and have been prioritised for national action within the national social marketing programme (see page 142).

The three 'at risk' clusters can also be used by local areas to better target interventions to promote healthy weight, leading to more effective interventions and use of public resources.

Local authorities and PCTs can access a draft report that describes the six clusters in detail via the obesity lead in their Regional Public Health Group, or by emailing

healthyweight@dh.gsi.gov.uk. A final version of the report will be published in late 2008, informed by continuing research, and the Cross-Government Obesity Unit welcomes feedback on the draft report.



Tool D4 presents a step-by-step guide on how to use the national segmentation analysis at a local level, including information on who can assist in mapping high-risk groups.

Setting local goals

All local areas have already set their goals for tackling obesity over the period 2008/09 to 2010/11, either through PCT plans, or additionally in Local Area Agreements (LAAs). However, this toolkit summarises the Department of Health's guidance on setting local goals,¹⁴¹ as it is useful to remember what underpins those targets.



Tool D5 provides guidance for PCTs and local authorities on how the goals for a local overweight and obesity strategy were set using NCMP local prevalence data.

It is also important to note that, although the guidance in Tool D5 sets out how PCTs and local authorities have set targets that are in line with the national 2020 goal to reduce the proportion of obese and overweight children to 2000 levels as set out in *Healthy Weight, Healthy Lives: A cross-government strategy for England*,¹ it does not include any details on how PCTs and local authorities can translate the 2020 goal down to a local level. This is because the 2020 goal is based on Health Survey for England data and, unless an area has access to data sources other than the NCMP, it will not have any data on the levels of child obesity and overweight for the year 2000. Therefore there is no national expectation that PCTs or local authorities should set their own targets to reduce levels of obesity and overweight to 2000 levels – the Government will instead continue to provide guidance to local areas that is consistent with achieving the national 2020 goal.

Setting objectives

Once the local goal has been set, local areas should think about intervention objectives using other relevant local information, such as prevalence of breastfeeding. The National Indicators of success relevant to obesity can help local areas set objectives which can then also be used in the evaluation of the programme.



Tool D5 provides details on setting objectives. It provides a list of National Indicators relevant to obesity which can help local areas set intervention objectives to reach their local goal.

See also **Tool D14** *Monitoring and evaluation: a framework* for further details on the importance of setting objectives for evaluation purposes.

Local leadership

Local areas need to identify and agree overall leadership and governance, the local leaders, their roles in promoting healthy weight and how to ensure strong and continuing communication across all parties.

A multi-agency approach is critical to tackling obesity. Primary care trusts (PCTs), local authorities and their partners in the private and third sector (the non-profit or voluntary sector) should work closely together through their Children's Trust partnership arrangements within their local strategic partnerships (LSPs) to determine how they will contribute to tackling the challenge of rising levels of overweight and obesity. Any strategy requires 'often and early' engagement with all stakeholders to ensure that the PCT Operational Plan, the Children and Young People's Plan (CYPP), and, where obesity has been identified as a priority, the Local Area Agreements (LAAs) are aligned. These should also align with plans that the local authority has on transport, community, play and planning. The local authority's Overview and Scrutiny Committee will have an important role to play.

Establishing a senior-level lead

The experience of multi-agency programmes in this country and others (eg the EPODE programme in Europe) is that it is critical to designate a senior-level officer to coordinate activity across all sectors – a person who has the 'clout' to bring partners together and drive forward implementation. The designated senior lead is likely to benefit from a joint appointment between the PCT and local authority as they will need to join up partners across the delivery chain.

Bringing partners together

Local areas will need to decide the most appropriate arrangements for bringing together all of the partners within the delivery chain, both to develop a local plan and to monitor its implementation. This will include ensuring that information, especially on good practice, flows both up and down the delivery chain.

One way of bringing together partners is to establish a sub-committee or partnership board, with senior-level representation from key partners, reporting regularly to a higher level strategic body such as the LSP or Children's Trust. This sub-committee does not need to be large and unwieldy. Core membership is likely to be drawn from:

- health promotion
- public health
- nutrition and dietetics
- leisure/physical activity
- school nursing, midwifery and health visiting
- education
- transport, and
- town planning.

It is essential to include in the sub-committee or partnership board someone with expertise in the evaluation of community interventions.

Other team members can be included as and when appropriate. For example, if the focus is on detection and management of existing cases, the team might also include:

- patient or carer
- GP and/or practice nurse
- primary care quality facilitator
- commissioner
- hospital specialist.

Another way of bringing partners together is by including obesity as a standing item on existing boards.

Financial considerations

It is imperative that the arrangements detailed above include financial considerations. This could involve establishing a pooled budget or agreeing service level agreements (SLAs) on the contributions of different partners.



Tool D6 provides details of potential local leaders and describes what their roles could be in tackling overweight and obesity. The tool also acts as a checklist to assess local leader commitment and engagement in the process. It is important to note that the roles set out in Tool D6 will not be appropriate for every area, but the tool may provide a helpful starting point for some local areas.

Choosing interventions

Local areas will need to plan specific interventions aimed at achieving their local targets to reduce levels of obesity and overweight among children. Ultimately, meeting these targets will require changing families' attitudes and behaviours.

When choosing interventions to change individuals' behaviour, local areas will need to know what changes in behaviour will help to achieve their targets, what interventions should be chosen to deliver the desired behaviour change (using NICE guidance), what difficulties may arise in achieving the desired behaviour, and so how to tailor interventions to ensure that they are effective for different target groups.

Local areas will then need to commission and procure services to deliver behaviour change – for example, weight management services and social marketing agencies.

Local areas should not feel constrained to implement only interventions with evidence of effectiveness. The evidence base to tackle this serious issue will only improve if areas try new interventions and then evaluate them.

What success looks like

Before choosing interventions, it is important for local areas to consider what changes in individual behaviour they will need to achieve in order to deliver the goals of their own obesity strategies. In *Healthy Weight, Healthy Lives: Guidance for local areas*,² the Department of Health outlined what the key successes would look like in terms of behaviour change, for each of the five themes. Some examples are provided below:

- Children: healthy growth and healthy weight – for example, as many mothers as possible breastfeeding up to 6 months and all schools are healthy schools
- Promoting healthier food choices – for example, less consumption of high-fat, high-sugar and high-salt foods
- Building physical activity into our lives – for example, reduced car use and more outdoor play
- Creating incentives for better health – for example, more workplaces that promote healthy eating and activity
- Personalised support for overweight and obese individuals – for example, everyone able to access appropriate advice and information on healthy weight.



Refer to National Indicators in **Tool D5**.

Tool D7 details 'what success looks like' for each of the five key themes detailed above.

Choosing interventions

Choosing the right interventions is critical to delivering behaviour change. So before interventions are chosen, local areas should conduct a full service review, a 'gap analysis' or audit of local services, initiatives and infrastructure including protocols, procedures, pathways and practice. This will help local areas find out what is currently happening, where the gaps are, what the priorities are and what the opportunities for development are. The following questions should be addressed:

- What action is being delivered?
- Is the action fully/partially/not in place?
- When is the action being delivered?
- Who is delivering the action?

Key Point

Each partner agency is usually best placed to undertake the mapping for its own sphere of influence and to feed its findings into the review.

Guided by good-quality local intelligence, local areas can then commission a range of interventions that prevent and manage excess weight, focused around the five themes set out in *Healthy Weight, Healthy Lives*¹ which are based on the evidence provided by Foresight. Decisions about specific interventions can be guided by:

- evidence of effectiveness
- outcomes of public health interventions
- appropriateness for the local community or local groups (eg black and minority ethnic communities) and cultural issues
- cost-effectiveness
- national guidance such as the NICE guideline on obesity⁶
- the balance between the preventive and management strands of the overall strategy
- the feasibility and probability of success
- available resources
- timeframes, and
- organisational and political pressures.

Estimating the potential cost-benefits of interventions

Ideally, decisions on which interventions to choose should take into account cost-benefit analyses, although these are extremely difficult to calculate. Theoretically, there are two components to analyse:

- the number of cases of overweight and obesity prevented by lifestyle changes in the population (and hence the cost-benefits of prevention), and
- the number of cases of coronary heart disease, diabetes, strokes, and obesity-related cancers prevented by effective identification and management of overweight and obesity (and hence the cost-benefits of screening for obesity).

In practice, however, it has proved difficult to model such analyses with any degree of accuracy.

Estimating the cost of taking action

NICE has produced a costing report and costing template to estimate the financial impact to the NHS of implementing the NICE clinical guideline on obesity.¹⁴² The costing template provides health communities with the ability to assess the likely local impact of the principal recommendations in the clinical guideline based on local population, and other variables can be amended to reflect local circumstances. The costing report focuses on the financial impact of implementing, in England, the recommendations that require the biggest changes in resources. Go to www.nice.org.uk to download the costing report and template.

Notes:



Tool D8 can help local areas choose interventions. It is based on the evidence of effectiveness and cost-effectiveness adapted from the NICE guideline on obesity.⁶ It also acts as a checklist for local areas to assess whether an intervention is already in place.

*Healthy Weight, Healthy Lives: Guidance for local areas*² also provides detailed information regarding potential interventions. Go to www.dh.gov.uk

*Quick reference guide 1 – For local authorities, schools and early years providers, workplaces and the public*¹⁴³ provides examples of suggested action to tackle overweight and obesity in these settings. The guide can be downloaded from www.nice.org.uk

Targeting behaviours

Qualitative research conducted by the Department of Health into the behaviours of families with children aged 2-11 years – both mainstream and black and minority ethnic (BME) families (Pakistani, Bangladeshi and Black African [Ghanaian and Nigerian]) – can be used to inform the selection of interventions. The research can also be used to provide a sense of the difficulties that can arise when delivering interventions which aim to achieve desired behaviours.

Families with children aged 2-11 years

The research found that the key to designing effective interventions is to engage the whole family, presenting healthy behaviours as enjoyable family experiences, positioning change as a positive choice, and focusing in particular on the beneficial impact of a better diet and increased physical activity levels at the same time as making it clear that children's happiness is the first priority.

Based on the research, the Department of Health suggests that local areas should look to develop interventions in the following areas:

- structured mealtimes – creating awareness among parents of the importance of limiting unhealthy and excessive snacking between meals
- shopping and cooking – giving parents and their children the knowledge and skills they need to shop for and prepare healthy meals. This will include challenging the belief that 'kids' foods' and 'convenience foods' offer better value than fresh, healthy foods
- portion size – working in partnership with the Food Standards Agency to help parents understand how much food their children should be eating
- improving food literacy – giving parents a better understanding of the components of a healthy diet
- sedentary activity – encouraging parents to limit their children's screen time and replace it with family activity
- outdoor play – increasing levels of family activity, in particular outdoor play, and reducing levels of sedentary behaviour. This will include providing safe, family-friendly environments where children can play, helping families understand the value of structured exercise and making exercise more inclusive and accessible; and active travel – encouraging families to use their cars less for short, walkable journeys.

Black and minority ethnic (BME) communities

While there is considerable overlap between attitudes to diet and physical activity across all parts of the community, there are also significant differences. As a result, the research recommended that the following factors need to be taken into account:

- **Cultural appropriateness:** Families could be encouraged to be more active by providing opportunities to take part in culturally appropriate and acceptable activities, for example dancing (for the Black African community in particular), walking, cricket and football. Adults may respond positively to opportunities to take part in activities with other people from the same ethnic background. Linking children's physical activity to school (for example, by setting up more after-school clubs) could help parents – who tend to prioritise their children's education over exercise – to see physical activity as more culturally acceptable.
- **Adapting existing eating habits:** Interventions should focus on ways of making traditional ethnic meals healthier, for example by using slow cookers or pressure cookers (rather than frying food) and swapping ghee, butter and palm oil for alternatives such as olive oil. Guidelines should also be provided on 'translating' current health messages into specific changes to traditional meals, and on healthier snacks and treats for children.
- **Engaging community leaders and workers:** Getting key community influencers to promote the value of physical activity for both male and female children could help parents feel they have been given cultural and religious 'licence' to encourage their children to be more active. For Bangladeshi and Pakistani women brought up abroad, key influencers such as GPs, health visitors, community health promotion workers and practice nurses are also trusted sources of information.
- **Engaging the extended family:** Extended family members tend to have a significant influence over children's food intake and family eating habits in general, especially in Bangladeshi and Pakistani families. Interventions must therefore target extended family members, in particular grandmothers. Engaging with these older members of the community could also be a step towards breaking down the widely held perception that an overweight child is a healthy child.
- **Using children to reach parents with limited English:** For Bangladeshi and Pakistani women brought up abroad, children are the most important source of information about health issues and guidelines. Children are already feeding back to their parents about health issues covered during lessons and their school's healthy eating policies.
- **Using one-to-one, community-based interventions:** These are crucial for those with limited English and whose engagement with mainstream media channels is therefore likely to be restricted. These interventions will need to be targeted at specific communities in order to overcome cultural and religious barriers.



Tool D9 provides details of the key behavioural insights from the qualitative research conducted among families with children aged 2-11 years in both mainstream families and BME families.

For further information, see *Insights into child obesity: A summary*. A draft of this report is available to PCTs and LAs through their Regional Public Health Group. A final report will be published in late 2008.

Communicating with target groups – key messages

To help overcome the complexities set out above, and thus change behaviours, effective communication with the target group is extremely important. The Department of Health carried out national research with the clusters with the greatest 'at-risk' behaviours (clusters 1, 2 and 3) to find out what communications would be effective in changing behaviour. (See page 59 for more on clusters.) The national research identified the following communications issues that should be borne in mind when structuring local programmes.

- Concepts such as 'health' and 'healthy lifestyles' can be alienating terms to families most at risk of problems.
- Parents need to be provided with simple, clear expressions of what risk and positive behaviour look like – outlining the risks attached to 'unhealthy' behaviour and the benefits attached to 'healthy behaviour'.
- A new language needs to be used to talk about the issues. Talking directly about 'obesity' and 'weight' may alienate parents and cause them to reject or deselect themselves as the target audience.
- Parents exert a powerful indirect influence over children's behaviour through role-modelling and thus 'whole-family' solutions need to be focused upon. Parents are focused on their child's happiness so it is important to express 'success' in terms which are relevant to parental priorities.
- It is important to acknowledge the value parents place on choice for both themselves and their children. Therefore a dictatorial approach should be avoided and ways to encourage positive choices should be found.

The breadth of these recommendations means that commissioning successful interventions will be a complex task, but a necessary one.



Tool D10 provides details on how local areas can communicate with the priority clusters.

Commissioning services

World Class Commissioning sets out the broad steps for commissioning services (see page 55 and **Tool D1**). These are supplemented below in three specific areas that feedback from PCTs has suggested would be helpful:

Procurement

When commissioning services, it is important that local areas know the key processes involved in procuring services to undertake the necessary work. Thus, the Department of Health has produced a guide to the procurement process which will help local areas develop plans that will effectively and efficiently secure services to undertake intervention work.



Tool D11 provides a guide to the procurement process.

Weight management services

The Department of Health has produced a framework for commissioning weight management services. It reflects the principles of World Class Commissioning (see **Tool D1**), focusing on how commissioners achieve the greatest health gains and reduction in inequalities, at best value, through 'commissioning for improved outcomes'.



Tool D12 presents a framework for commissioning weight management services for children, young people and families.

Social marketing agencies

In commissioning social marketing agencies, the National Social Marketing Centre (NSMC) has developed an evaluation checklist and some sample interview questions for assessing agencies. It is important that local areas put the correct procurement procedure in place when approaching social marketing agencies.



Tool D13 contains the evaluation checklist and interview questions for commissioning social marketing.

Monitoring and evaluation

Once interventions have been chosen, local areas need to develop a monitoring and evaluation framework in order to assess the effectiveness and cost-effectiveness of the interventions. It is important that an evaluation of an intervention is planned and organised and that it has clear objectives and methods for achieving them.

Evaluation of local strategies and programmes for overweight and obesity is essential for:

- clinical governance
- audit and quality improvement
- providing information to the public
- strategy and performance development
- assessing value for money
- assessing sustainability, and
- increasing the evidence base.

There are two basic rules for successful evaluation:

- The evaluation process must be thought through from the start, at the same time as you develop the strategy's aims, objectives and targets.
- Adequate funding should be set aside for the evaluation. A good guide is 10% of the total budget. Evaluation of community projects is not easy and not everything can be evaluated.

The rationale for evaluation can include:

- to inform the day-to-day running of the project, to try to improve interventions and possibly to develop new ones
- to demonstrate worth and value for money to the commissioner or funder, in order to support requests for continued or additional funding
- to define and examine successes and failures with all stakeholders, and to know how and why something works, as well as attempting to understand why it may not
- to assess behavioural change and environmental improvements
- to develop models of good practice that are then disseminated to others
- to contribute to the debate on obesity, and
- to assist with performance improvement.

The key areas to evaluate must be agreed among the partners, including the participants, to reflect their different agendas. Evaluation will include:

- measuring indicators of progress, including progress towards any local targets
- assessing how well various aspects of the strategy were perceived to work from the viewpoint of professionals from all sectors and by communities, and
- assessing whether the changes were a result of the intervention.

It is essential to include in the sub-committee or partnership board (see *Local leadership* on page 61) someone with expertise in the evaluation of community projects. This could be someone from the health or environment departments of a local university or further education college, a local dietitian, or someone from the nutrition department of a hospital or the community.



Tool D14 provides a framework for monitoring and evaluation.

Audit criteria for NICE guideline on obesity

NICE has developed audit criteria for the clinical guideline on obesity. The aim of the audit is to help health services and local authorities to determine whether they are implementing the guidance. The implementation of the audit will help organisations meet developmental standard D13 of *Standards for better health* set by the Department of Health. Standard C5(d) states that "Healthcare organisations ensure that clinicians participate in regular clinical audit and reviews of clinical services."¹⁴⁴ To download the NICE audit criteria, go to www.nice.org.uk

Building local capabilities

Local areas need to ensure that all partners are aware of their roles in promoting the benefits of a healthy weight. Therefore it is important that both health and non-health professionals are trained in order to deal sensitively with the issue of overweight and obesity.

A whole systems approach is necessary so that all those working at a local level in all organisations are aware of their role in promoting physical activity, good nutrition, and the benefits of a healthy weight. In many cases, local partners will want to commission training to support their staff in this role. To maximise coverage of the training, a system of cascade training (or training trainers) is an effective way of capturing the whole workforce quickly.²

When commissioning training, local areas should take into account the different needs of health and non-health professionals. For example, health professionals may need a detailed understanding of nutrition and the promotion of healthy lifestyles, while non-health professionals, such as teachers (especially those with pastoral duties and those teaching Personal, Social and Health Education [PSHE]), may need to be aware of the role they can play, and be able to provide basic advice and signposting to appropriate local services.²

In addition, training will need to recognise the sensitivity around the issue of weight and build the confidence of staff to be able to raise the issue and know how to influence behaviour change. This will be particularly important when routine feedback to parents, as part of the NCMP, is introduced. As members of the general public, many staff will themselves have weight issues: they may be overweight, obese or underweight, and they are likely to feel particularly unconfident in raising issues of weight. Training packages must take account of this and build in tools for staff to raise the issue, taking into account the staff's own weight status.²

Obesity training directory

The *Obesity training directory*¹³⁰ produced by DOM UK provides PCTs with information on training courses for obesity prevention and management available across the country. The Directory does not represent a list of approved training providers; it is merely a list of what is available. It is intended to act as a guide for PCTs who need or wish to take a more strategic approach by commissioning obesity training from a wider pool beyond the training programmes that they can access locally. PCTs may wish to use this resource as a starting point and seek further guidance from local training officers and experts in obesity management, such as physical activity specialists and registered dietitians. To access the directory, go to www.domuk.org. The directory is currently being updated. The new version will be available by Spring 2009.

Training to deliver NICE guidance

NICE commissioned BMJ Learning to produce an online training package for GPs and other health professionals. To access this learning module, users must register with the BMJ Learning website, which is free, and the module is then free to access. Learners who successfully complete the module, which takes about an hour, will receive a personal certificate of completion. The module incorporates training on:

- BMI and other measures of adiposity
- what level of advice or intervention to use with a patient, depending on their BMI, waist circumference and co-morbidities
- how to explore a patient's readiness to change

- advice to patients on diet, physical activity, and community-based interventions
- when to refer to a specialist.

This training module complements the care pathways and documents referenced in the tools for healthcare professionals found in section E of this toolkit. To access the module, go to learning.bmj.com

The Expert Patients Programme

The Expert Patients Programme (EPP) is a national NHS-based self-management training programme which provides opportunities for people who live with long-term conditions to develop new skills to manage their condition better on a day-to-day basis. For example, in terms of tackling overweight and obesity, patients with diabetes or heart disease can learn how to start and maintain an appropriate exercise or physical activity programme. Set up in 2002, the Expert Patients Programme is based on research from the US and UK over the last two decades which shows that people living with long-term conditions are often in the best position to know what they need to manage their own condition. Provided with the necessary 'self-management' skills, people with long-term conditions can make a tangible impact on their own condition and on their quality of life more generally. EPP courses are being run by primary care trusts throughout England. To find training courses, go to www.expertpatients.co.uk



Tool D15 *Useful resources* gives further sources of information relevant to building local capabilities.

Tools for healthcare professionals

Local areas will need to provide appropriate support to healthcare professionals so that a greater number of individuals, particularly children and their families, have access to weight management services in order to move towards a healthy weight.

The NHS is perfectly placed to identify overweight and obesity, provide advice on healthy lifestyles and refer individuals to weight management services. This is a substantial task, so healthcare professionals will need appropriate support from PCTs and strategic health authorities. The nine tools in section E have been provided to help commissioners of PCTs and local authorities further support their local healthcare professionals. There are:

- tools to help healthcare professionals assess weight problems
- tools to help healthcare professionals raise the issue of weight with their patients, and
- tools to help them gain access to further resources.

Assessment of overweight and obesity

Assessing whether an individual is overweight or obese is undertaken primarily by primary care practitioners such as GPs, practice nurses, health visitors, community nurses, community dietitians, midwives and community pharmacists. The important aspect of assessment is that people with greatest clinical need are prioritised and offered efficient weight management. This can be in both NHS and non-NHS settings. To ensure that there is a systematic approach to the assessment and management of overweight and obesity, clinical guidance has been established. Within these sets of guidance are clinical care pathways that direct healthcare professionals to appropriate measures for assessing and managing overweight and obesity.

Examples of guidance available are detailed in section B on page 47. However, the two most important sets of guidance that health professionals should be referred to are:

- *Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children*,⁶ and
- *Care pathway for the management of overweight and obesity*.¹²⁰

More information about these sets of guidance, the early identification of patients who are most at risk of becoming obese later in life, and measuring and assessing overweight and obesity are provided in the following tools.



Tool E1 *Clinical care pathways*

Tool E2 *Early identification of patients*

Tool E3 *Measurement and assessment of overweight and obesity – ADULTS*

Tool E4 *Measurement and assessment of overweight and obesity – CHILDREN*

Raising the issue of weight with patients – assessing readiness to change

Healthcare professionals have an extremely important role to play in the provision of advice on healthier lifestyles, and commissioners will want to be assured that this advice is being given. It is not only GPs who can provide advice to overweight or obese individuals. Healthcare professionals in a range of settings play an important role. Examples may include: practice nurses; dentists who provide support relating to oral health; health trainers who work within communities promoting healthy lifestyles; and pharmacists who come into contact with patients who may not seek advice from their GP. The Royal Pharmaceutical Society of Great Britain¹²⁹ has produced guidance for community pharmacists who provide advice on overweight and obesity. See www.rpsgb.org.uk

The Government recognises the importance of developing the advice-giving role of health professionals, in order to improve local services to patients. However, research undertaken for the *Choosing health*⁸ consultation found that some healthcare professionals, including GPs, were uncomfortable about raising the issue of weight with patients. They lacked confidence when it came to giving patients advice. Furthermore, anecdotal evidence revealed that some overweight health professionals found it difficult to give advice on healthy living. To support healthcare professionals with these issues, the Department of Health has produced guidance on raising the issue of weight with children and adults, and commissioned research into the attitudes of overweight health professionals and patients.

The Department of Health guidance and the main findings from the research are provided in the following tools:



Tool E5 *Raising the issue of weight – Department of Health advice*

Tool E6 *Raising the issue of weight – perceptions of overweight healthcare professionals and overweight people*

Resources for healthcare professionals

Knowing where to access resources for patients, supplying useful literature and providing correct information are crucial for an effective and efficient advice service. To support healthcare professionals in accessing the most appropriate information and resources, the following tools provide: details of literature for patients on healthy living and losing weight and maintaining a healthy weight; suggested responses to frequently asked questions regarding obesity; and information on the National Child Measurement Programme (NCMP).



Tool E7 *Leaflets and booklets for patients*

Tool E8 *FAQs on childhood obesity*

Tool E9 *The National Child Measurement Programme (NCMP)*

See also the NHS Choices website at www.nhs.uk



Resources for commissioners

This section contains tools for commissioners in primary care trusts (PCTs) and local authorities developing local plans for tackling obesity, with a focus on children. It follows the framework for local action outlined in *Healthy Weight, Healthy Lives: Guidance for local areas*², so it is divided into the five sub-sections:

Understanding the problem in your area and setting local goals

There are four tools in this sub-section that will help local areas understand the problem in their area and set local goals. **Tools D2 and D3** will give areas a sense of the scale of the problem in terms of prevalence of obesity and cost to the NHS. **Tool D4** will enable areas to identify priority groups using the national segmentation analysis undertaken by the Department of Health. **Tool D5** gives the advice provided to PCTs and local authorities on how to use local data from the National Child Measurement Programme (NCMP) in setting child obesity goals to achieve an improvement on current prevalence of child obesity in each of the three years (2008/09 to 2010/11) as part of the Vital Signs and the National Indicator Set (NIS).

Local leadership

The Department of Health advises that a multi-agency approach is key to tackling obesity. Success looks like clearly identified responsibility for actions, with overall leadership and governance agreed by all partners. **Tool D6** identifies key local leaders, the rationale for their involvement, their role in promoting a healthy weight, and ways to engage them.

Choosing interventions

This sub-section is about changing individual behaviour to reach the local goal of tackling obesity and promoting healthy weight. The seven tools in this sub-section will help local areas deliver behaviour change. **Tool D7** gives areas an idea of what changes in behaviour are desired at the end of the process. These outcomes or successes were outlined in *Healthy Weight, Healthy Lives: Guidance for local areas*.² **Tool D8** provides details of how to deliver the desired behaviour change through various interventions, divided into the Department of Health's five core themes set out in *Healthy Weight, Healthy Lives*.¹ This tool is based on evidence of effectiveness and cost-effectiveness adapted from the NICE guideline on obesity.⁶ **Tool D9** moves on to provide behavioural insight among families with children aged 2-11 years and minority

ethnic communities. This tool gives a sense of the difficulties of achieving the desired behaviours but also can be useful in the initial design of interventions. **Tool D10** gives details of how to reach the priority clusters 1, 2 and 3 (as detailed in Tool D4), by communicating using the right language and key messages. **Tools D11, D12 and D13** all provide details on procuring outside services to deliver behaviour change. Tool D11 provides a guide to procurement, Tool D12 provides a guide to commissioning weight management services, and Tool D13 provides details of how to procure a social marketing agency.

Monitoring and evaluation

Evaluating the effectiveness of local initiatives is key to understanding which services to continue to commission in the future. **Tool D14** provides a framework for monitoring and evaluating local interventions. It presents a 12-step guide on the key elements of monitoring and evaluation, an evaluation and monitoring checklist, and a glossary of terms.

Building local capabilities

Tool D15 provides a list of training programmes, publications, useful organisations and websites, and tools for healthcare professionals.

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TOOL D1 Commissioning for health and wellbeing: a checklist

TOOL D1

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool provides details of World Class Commissioning including information on the organisational competencies. It also provides a checklist for commissioners to ensure that their obesity strategies are developed using the best available resources.
Purpose:	To provide an understanding of how World Class Commissioning can help local areas reach their goal of reducing the prevalence of obesity.
Use:	Can be used in the development of local obesity strategies.
Resource:	<i>World Class Commissioning: Competencies.</i> ¹⁴⁵ www.dh.gov.uk <i>A vision for World Class Commissioning: Adding life to years and years to life</i> ¹⁴⁶ www.primarycarecontracting.nhs.uk

World Class Commissioning: organisational competencies

The World Class Commissioning programme is designed to raise ambitions for a new form of commissioning that has not yet been developed or implemented in a comprehensive way anywhere in the world. World Class Commissioning is about delivering better health and wellbeing for the population, improving health outcomes and reducing health inequalities. In partnership with local government, practice-based commissioners and others, primary care trusts (PCTs), supported by strategic health authorities (SHAs), will lead the NHS in turning the world class commissioning vision into a reality.

World class commissioning PCTs will need to develop the knowledge, skills, behaviours and characteristics that underpin effective commissioning. The organisational competencies are set out below. They have been divided into four of the five themes of *Healthy Weight, Healthy Lives*¹ – understanding the problem, local leadership, choosing interventions, and monitoring and evaluation – in order that local areas can use these competencies to develop their local obesity strategies.

Understanding the problem in your area and setting local goals

Manage knowledge and undertake robust and regular local health needs assessments that establish a full understanding of current and future local health needs and requirements

- Commissioning decisions should be based on sound evidence. They capture high-quality and timely information from a range of sources, and actively seek feedback from their populations about services. By identifying current needs and recognising future trends, World Class Commissioners will ensure that the services commissioned respond to the needs of the whole population, not only now, but also in the future.
- In particular, World Class Commissioning will ensure that the greatest priority is placed on those whose needs are greatest. To prioritise effectively, commissioners will require a high level of knowledge management with associated actuarial and analytical skill.

- The PCT is able to anticipate and address the needs of the whole population, including people with long-term conditions. A joint strategic needs assessment (JSNA) carried out by PCTs and local authorities, provides a rich picture of the current and future needs of their populations. This results in comprehensive and better-managed care.

Prioritise investment according to local needs, service requirements and NHS values

- By having a thorough understanding of the needs of different sections of the local population, World Class Commissioners, along with their partners, will develop a set of clear, outcome-focused, strategic priorities and investment plans. This will require taking a long-term view of population health and changing requirements. Their priorities are formally agreed through the local area agreement (LAA). Strategic priorities should include investment plans to address areas of greatest health inequality.
- PCTs make confident choices about the services that they want to be delivered, and acknowledge the impact that these choices may have on current services and providers. They have ambitious but realistic goals for the short, medium and long term, linked to an outcomes framework. They work with providers to ensure that service specifications are focused on clinical quality and based on the outcomes they want to achieve, and not just on processes and inputs.

Local leadership

Lead and steer the local health agenda in the community

- World Class Commissioners will actively steer the local health agenda and will build their reputation within the community so that they are recognised as the leader of the local NHS. They will seek and stimulate discussion on health and care matters and will be respected by community and business partners as the primary source of credible and timely advice on all matters relating to health and care services.

Work collaboratively with community partners to commission services that optimise health gains and reductions in health inequalities

- World Class Commissioners will take into account the wider determinants of health, when considering how to improve the health and wellbeing of their local community. To do this effectively, they will work closely and develop a shared ambition with key partners including local government, healthcare providers and third sector organisations. These relationships are built up over time, reflecting the commitment of partner organisations to develop innovative solutions for the whole community. Together, commissioners and their partners will encourage innovation and continuous improvement in service design, and drive dramatic improvements in health and wellbeing.

Choosing interventions

Engage with patients and the public to shape services and improve health

- Commissioners act on behalf of the public and patients. They are responsible for investing funds on behalf of their communities, and building local trust and legitimacy through the process of engagement with their local population. In order to make commissioning decisions that reflect the needs, priorities and aspirations of the local population, World Class Commissioners will engage with the public, and actively seek the views of patients, carers and the wider community. This new relationship with the public is long-term, inclusive and enduring and has been forged through a sustained effort and commitment on the part of commissioners. Decisions are made with a strong mandate from the local population and other partners.

Engage with clinicians to inform strategy and drive quality, service design and resource utilisation

- Clinical leadership and involvement is a critical and integral part of the commissioning process. World class commissioners will need to ensure demonstrable clinical leadership and engagement at all stages of the commissioning process. Clinicians are best placed to advise and lead on issues relating to clinical quality and effectiveness. They are the local care experts, who understand clinical needs and have close contact with the local population. By encouraging clinical involvement in strategic planning and service design, World Class Commissioners will ensure that the services commissioned reflect the needs of the population and are delivered in the most personalised, practical and effective way possible.
- World class PCTs need world class practice based commissioners with whom they work in demonstrable partnership to drive improvements across the highest priority services and meet the most challenging needs identified by their strategic plans. To support this drive towards World Class Commissioning, Professional Executive Committees (PECs) have a crucial role to play in building and strengthening clinical leadership in the strategic commissioning process.

Stimulate the market to meet demand and secure required clinical, and health and wellbeing outcomes

- Commissioners will need a choice of responsive providers in place to meet the health and care needs of the local population.
- Employing their knowledge of future priorities, needs and community aspirations, commissioners will use their investment choices to influence service design, increase choice, and drive continuous improvement and innovation.
- World Class Commissioners will have clear strategies for dealing with situations where there is a lack of provider choice, in particular in areas where there is relatively poor health and limited access.

Promote improvement in quality and outcomes through clinical and provider innovation and configuration

- World Class Commissioners will drive continuous improvement in the NHS. Their quest for knowledge, innovation and best practice will result in better quality local services and significantly improved health outcomes.
- By working with partners to clearly specify required quality and outcomes, and influencing provision accordingly, World Class Commissioners will facilitate continuous improvement in service design to better meet the needs of the local population. This will be supported by transparent and fair commissioning and decommissioning processes.

Secure procurement skills that ensure robust and viable contracts

- Procurement and contracting processes will ensure that agreements with providers are set out clearly and accurately. By putting in place excellent processes, commissioners can facilitate good working relationships with their providers, offering protection to service users and ensuring value for money.

Make sound financial investments to ensure sustainable development and value for money

- World Class Commissioners ensure that their commissioning decisions are sustainable and that they are able to secure improved health outcomes, both now and in the future. Excellent financial skills and resource management will enable commissioners to manage the financial risks involved in commissioning and take a proactive rather than reactive approach to financial

management. The financial strategy will ensure that the commissioning strategy is affordable and set within the organisation's overall risk and assurance framework.

Monitoring and evaluation

Manage systems and work in partnership with providers to ensure contract compliance and continuous improvements in quality and outcomes

- Commissioners must ensure that providers are given the support needed to deliver the highest possible quality of service and value for money. This involves working closely with partners to sustain and improve provision, and engaging in constructive performance discussions to ensure continuous improvement.
- By having timely and continuous control over contracts, World Class Commissioners deliver better value to service users and taxpayers. PCTs use a range of approaches, including collecting and communicating performance data and service user feedback, working closely with regulators, and intervening when necessary to ensure service continuity and access. PCTs ensure that the commissioning process is equitable and transparent, and open to influence from all stakeholders via an ongoing dialogue with patients, service users and providers.

Checklist

In order that commissioners develop a successful obesity strategy in terms of the outcome being a reduction in obesity, particularly in children, commissioners should go through the checklist below and check whether they are using the best available resources in their area to achieve this outcome.

Understanding the problem in your area and setting local goals

Competency	Yes	No	Action
Manage knowledge and undertake robust and regular local health needs assessments that establish a full understanding of current and future local health needs and requirements			
Do you have strategies to further develop and enhance the needs assessment data sets and analysis with your partners?			
Are you routinely acquiring knowledge and intelligence of the whole community through well-defined and rigorous methodologies, including data collection with local partners, service providers and other agencies?			
Do you identify and use the relevant core data sets required for effective commissioning analysis? Are you demonstrating this use?			
Are you routinely seeking and reporting on research and best practice evidence, including clinical evidence that will assist in commissioning and decision making?			
Do you share data with current and potential providers and with relevant community groups?			
Can you demonstrate that you have sought and used all relevant data to work with communities and clinicians, prioritising strategic commissioning decisions and longer-term workforce planning?			

	Yes	No	Action
Prioritise investment according to local needs, service requirements and NHS values			
Do you identify and commission against key priority outcomes, taking into account patient experiences, local needs and preferences, risk assessments, national priorities and other guidance, such as National Institute for Health and Clinical Excellence (NICE) guidelines?			
Are the selected clinical, health and wellbeing outcomes desired, achievable and measurable? Do the outcomes align with partners' commissioning strategies?			
Are you developing short-, medium- and long-term commissioning strategies enabling local service design, innovation and development?			
Are you identifying and tackling inequalities of health status, access and resource allocation?			
Are you routinely using programme budgeting to understand investment against outcomes?			
Can you complete comprehensive risk assessments to feed into the wider decision-making process and all investment plans?			
Are you using financial resources in a planned and sustainable manner and investing for the future, including through innovative service design and delivery?			
Do you seek and make available valid benchmarking data?			
Do you share data with partner organisations, including practice-based commissioners and current and potential providers?			
Are you monitoring the performance of commissioned strategic health outcomes, using patient-reported clinical outcome measures and measures related to patient experience and public engagement?			

Local leadership

Competency	Yes	No	Action
Lead and steer the local health agenda in the community			
Are you the primary source of credible, timely and authoritative advice on all matters relating to the NHS?			
Do you apply NHS values (fair, personal, effective and safe) to strategic planning and decision making?			
Do you work closely with partner NHS organisations and other providers?			
Do you engage with and involve the public, community and patients?			
Do you communicate local NHS priorities to diverse groups of people?			
Do you develop the competences and capabilities of local NHS organisations?			
Do you effectively manage contracts?			
Do you have a clear communications policy? Can you respond effectively to individual, organisational and media enquiries regarding the NHS?			

	Yes	No	Action
Work collaboratively with community partners to commission services that optimise health gains and reductions in health inequalities			
Do you actively seek partnership with appropriate agencies both within health and beyond using defined legal agreements and frameworks?			
Do you create informal and formal partnering arrangements as appropriate to different relationships?			
Do you identify key local participants and potential partners (both statutory and non-statutory) to optimise improvements in outcomes?			
Do you advise and develop local partner commissioning capabilities where there will be a direct impact on joint commissioning goals?			
Do you share with the local community its ambition for health improvement, innovation, and preventive measures to improve wellbeing and tackle inequalities?			
Do you influence partner commissioning strategies reflecting NHS core values?			
Do you use the skills and knowledge of partners, including clinicians, to inform commissioning intentions in all areas of activity?			
Do you actively share relevant information so that informed decisions can be made across the commissioning community?			
Do you monitor and evaluate the effectiveness of partnerships?			

Choosing interventions

Competency	Yes	No	Action
Engage with patients and the public to shape services and improve health			
Can patients and the public share their experiences of health and care services? Do you use these experiences to inform commissioning?			
Do you have an understanding of different engagement options, including the opportunities, strengths, weaknesses and risks?			
Do you invite patients and the public to respond and comment on issues in order to influence commissioning decisions and to ensure that services are convenient and effective?			
Do patients and the public understand how their views will be used? Do they know which decisions they will be involved in, when decisions will be made, and how they can influence the process? Do you publicise the ways in which public input has influenced decisions?			
Do you proactively challenge and, through active dialogue, raise local health aspirations to address local health inequalities and promote social inclusion?			
Do you create a trusting relationship with patients and the public? Are you seen as an effective advocate and decision maker on health requirements?			
Do you communicate the PCT's vision, key local priorities and delivery objectives to patients and the public, clarifying its role as the local leader of the NHS?			

	Yes	No	Action
Do you respond in an appropriate and timely manner to individual, organisational and media enquiries?			
Do you undertake assessments and seek feedback to ensure that the public's experience of engagement has been appropriate and not tokenistic?			
Engage with clinicians to inform strategy and drive quality, service design and resource utilisation			
Do you encourage broad clinical engagement through devolution of commissioning decisions? This includes maximising clinical impact through the development of practice-based commissioning (PBC).			
Do you engage and utilise the skills and knowledge of clinicians to inform commissioning intentions in all areas of activity, including setting strategic direction and formulating commissioning decisions?			
Do you build and support: • broad clinical networks, including across provider boundaries, to facilitate multidisciplinary input into pathway and service design? • informed clinical reference groups, such as Professional Executive Committees (PECs), ensuring that clinicians and practice-based commissioners have full and timely access to information, enabling local commissioning decisions to be made? • clinical engagement in strategic decision making and assure clinical governance structures via PECs? Do you oversee and support PBC decisions to ensure effective resource utilisation, reducing health inequalities and transforming service delivery?			
Do you work with clinical colleagues, such as PECs, along care pathways to spread best practice and rigorous standards to hold clinicians to account?			
Do you work in partnership with clinicians along care pathways in commissioner and provider organisations to facilitate and harness front-line innovation and drive continuous quality improvement?			
Stimulate the market to meet demand and secure required clinical, and health and wellbeing outcomes			
Do you map and understand the strengths and weaknesses of current service configuration and provision?			
Do you have an understanding and knowledge of methods for finding out what matters to patients, the public and staff? Are you able to respond to this when defining service specifications?			
Can you model and simulate the impact of commissioning decisions and strategies on the current configuration of provision?			
Can you promote services that encourage early intervention, to avoid unnecessary unplanned admissions?			
Do you have a clear understanding and knowledge of the abilities and role of the third sector, and of its ability to provide against service specifications?			
Can you translate strategy into short-, medium- and long-term investment requirements, allowing providers to align their own investment and planning processes with specified requirements?			

	Yes	No	Action
Are you aware of market trends and behaviours? Can you show knowledge of and act on current gaps in the market to provide patients with a choice of local providers?			
Can you create incentives where necessary for market entry, including understanding the requirements of full cost recovery?			
Can you stimulate provider development matched to the requirements and experiences accrued from user and community feedback (for example, timely and convenient access to services that are closer to home)?			
Can you specify the realistic time schedules that are needed to encourage and deliver innovation and change, providing direct support when required?			
Can you develop relationships with potential future providers whose services may be of interest and may be relevant to meeting need and demand?			
Do you communicate with the market as an investor, not a funder, using and specifying an approach based on quality and outcomes?			
Promote improvement in quality and outcomes through clinical and provider innovation and configuration			
Do you map and understand the strengths and weaknesses of current service innovation, quality and outcomes?			
Do you maintain an active database of best practice, innovation and service improvement?			
Do you analyse local and wider clinical and provider quality and capacity to innovate and improve?			
Do you share research, clinical and service best practice linked to clear specifications that drive innovation and improvement?			
Do you communicate with clinicians and providers to challenge established practice and drive services that are both convenient and effective?			
Do you set stretch targets? Do you challenge providers to come up with innovative ways to achieve them?			
Do you understand the potential of local community and third sector providers to deliver innovative services and increase local social capital?			
Do you catalyse change and help to overcome barriers, including recognising and challenging traditions and ways of thinking (for example in service design and workforce development) that have outlived their usefulness? Do you support providers that constructively break with these?			
Do you translate research and knowledge into specific clinical and service reconfiguration, improving access, quality and outcomes?			
Do you design and negotiate contracts that encourage provider modernisation, continued efficiency, quality and innovation?			
Are you creating incentives to drive innovation and quality?			
Do you secure and maintain relationships with improvement agencies and suppliers, brokering local knowledge and information networks?			

	Yes	No	Action
Are you developing relationships with current and potential providers, stimulating whole-system solutions for the greatest health and wellbeing gain?			
Secure procurement skills that ensure robust and viable contracts			
Are you procuring and contracting in proportion to risk and in line with the clinical priorities and wider health and wellbeing outcomes described in the commissioning strategy?			
Are you procuring and contracting in line with relevant Department of Health policies, such as patient choice, competition principles and rules, care closer to home and NICE guidelines?			
Do you work with commissioning partners to ensure that your procurement plans are consistent with wider local commissioning priorities?			
Are you continuously developing your range of procurement techniques and making effective use of them?			
Do you have a working knowledge of all legal, competition and regulatory requirements relevant to your role when tendering?			
Are you reflecting NHS values through clear and accurate service specifications?			
Are you assessing business cases according to financial viability, risk, sustainability and alignment with commissioning strategies?			
Do you design and negotiate open and fair contracts that provide value for money and are enforceable, with agreed performance measures and intervention protocols?			
Do contracts cover reasonable time periods, maximising the investment of both the provider and the PCT?			
Do you understand and implement standard national contracts as these become available?			
Do you create contingency plans to mitigate against provider failure?			
Make sound financial investments to ensure sustainable development and value for money			
Do you have a thorough understanding of the financial regime in which you operate?			
Do you prepare effective financial strategies that identify and take account of trends, key risks and potential high-impact changes in cost and activity levels? These strategies drive the annual budgeting process and support the commissioning strategy.			
Are you developing a risk-based approach to long-term financial planning and budgeting that supports relevant and proportionate analysis of financial and activity flows?			
Are you routinely using programme budgeting to understand investment against outcomes and relative potential shifts in investment opportunities that will optimise local health gains and increase quality?			
Do you use financial resources in a planned and sustainable manner and invest for the future?			

	Yes	No	Action
Do you analyse costs, such as prescribing, and identify areas for improvement?			
Do you have a clear understanding of the links between the financial and non-financial elements of the commissioning strategies?			
Are you developing a risk-based approach to annual financial management and budgeting? This is supported by the ongoing analysis of financial and activity flows and includes cash management plans to ensure an efficient use of allocated resources.			
Do you budget proactively rather than reactively, with large, high-risk or volatile elements being identified and cross-referenced to operational activity?			
Does the Board have clear governance structures in place that facilitate and ensure active management of all aspects of the PCT's business and planning functions? Are these transparent, easily understood and public-facing?			
Do you analyse the activity of the providers, PBC leads, and other budget holders through detailed comparisons of expected and actual costs and activity?			
Do you provide useful, concise and complete financial and activity information to the Board to aid decision making, highlighting significant variances where these are occurring?			
Do you have clear and understood processes for dealing with any areas which begin to show significant variance from budget during the financial year? Are these implemented effectively by all relevant staff and reported to the Board where necessary?			
Are you calculating, allocating and reviewing PBC budgets in a fair and transparent manner with effective incentive systems? Are you enabling PBC leads to fully understand and manage their devolved budgets?			
Are you developing short-, medium- and long-term strategic financial plans, highlighting areas suitable for local service redesign, innovation and development?			
Are you working effectively with all service providers by providing financial support and information to achieve the most clinically effective and cost-effective approaches?			
Do you have a well-developed system of governance that ensures financial risks are reported and managed at the appropriate level?			
Do you have strong financial and ethical values and principles that are publicly expressed and underpin the work of all staff and board members, including those working under contract? These values will also be expressed in all contracts entered into by the PCT.			
Do all staff have a clear understanding of their delegated commissioning budgets? Do all staff responsible for the management of budgets have access to relevant and timely activity and performance data that enable them to operate these budgets effectively?			

Monitoring and evaluation

Competency	Yes	No	Action
Manage systems and work in partnership with providers to ensure contract compliance and continuous improvements in quality and outcomes			
Do you monitor provider financial performance, activity and sustainability in accordance with its contractual agreements?			
Are you transparent about your relationships with other organisations that collect, publish, assess and regulate providers?			
Do you evaluate individual provider performance according to agreed provision measurements?			
Do you use benchmarking to compare performance between providers? Are you communicating performance evaluation findings with providers?			
Do you use performance evaluation findings to lead regular and constructive performance conversations with providers, working with them to resolve issues?			
Do you use agreed dispute processes for unresolved issues?			
Do you recognise an advocacy and expert role in service development for providers? Do you invite them to contribute in that role?			
Do you disseminate relevant information to allow current providers to innovate and develop to meet changing commissioning requirements?			
Do you understand the motivations of current providers? Are you fostering an environment of shared responsibility and development?			
Do you terminate contracts when necessary?			



TOOL D2 Obesity prevalence ready-reckoner

TOOL
D2

For:	Commissioners in primary care trusts (PCTs)
About:	This tool is a ready-reckoner which can be used to estimate the number of adults (aged 16 and above) or the number of children aged 1-15 years within a primary care trust who are obese or overweight.
Purpose:	To provide an understanding of the scale of the obesity problem in your PCT.
Use:	• Can be used for understanding the problem in your PCT – case for funding. • Can be used for evaluation and monitoring purposes. The data can be used as a baseline when calculating the success of interventions using performance indicators.
Resource:	An electronic version of the <i>Obesity prevalence ready-reckoner</i> , which can be completed online, can be found at www.heartforum.org.uk or www.fph.org.uk

Estimating the prevalence of obesity and central obesity

The ready-reckoner can be used to estimate:

- the number of adults aged 16 and over who are obese – measured by Body Mass Index (BMI) of more than 30kg/m².
- the number of adults aged 16 and over with central obesity as measured by a raised waist circumference. A raised waist circumference has been taken to be 102cm (40 inches) or more in men and 88cm (35 inches) or more in women. These levels have been used to identify people at risk of the metabolic syndrome, a disorder characterised by increased risk of developing diabetes and cardiovascular disease. Central obesity, as measured by waist circumference, is reported to be more highly correlated with metabolic risk factors (high levels of triglycerides and low HDL cholesterol) than is elevated BMI.¹²
- the number of children aged 1-15 years who are obese using the UK National BMI Percentile Classification as recommended by the National Institute for Health and Clinical Excellence (NICE) and the Department of Health.

How to use the ready-reckoner

- 1 In cells A1 to A7 and B1 to B7, enter the actual numbers of residents in each age group, based on latest population estimates for your area.
- 2 Calculate the other cell values according to the formulae.

Note:

The ready-reckoner uses national data and does not take into account local factors such as ethnicity, deprivation or other factors that might affect overweight and obesity prevalence.

Obesity prevalence ready-reckoner: adults aged 16 and over

		A	B	C	D	E	F
		PCT population (Enter actual numbers)		Estimate of number of people who are obese (BMI greater than 30kg/m ²)		Estimate of number of people who have a raised waist circumference (Male 102cm or above. Female 88cm or above)	
	Age	Male	Female	Male	Female	Male	Female
1	16-24	Enter actual number	Enter actual number	A1 x 0.09	B1 x 0.12	A1 x 0.10	B1 x 0.17
2	25-34	Enter actual number	Enter actual number	A2 x 0.21	B2 x 0.18	A2 x 0.21	B2 x 0.30
3	35-44	Enter actual number	Enter actual number	A3 x 0.25	B3 x 0.24	A3 x 0.30	B3 x 0.36
4	45-54	Enter actual number	Enter actual number	A4 x 0.28	B4 x 0.27	A4 x 0.38	B4 x 0.45
5	55-64	Enter actual number	Enter actual number	A5 x 0.33	B5 x 0.30	A5 x 0.46	B5 x 0.50
6	65-74	Enter actual number	Enter actual number	A6 x 0.31	B6 x 0.35	A6 x 0.51	B6 x 0.60
7	75+	Enter actual number	Enter actual number	A7 x 0.18	B7 x 0.27	A7 x 0.41	B7 x 0.57
8	Sub-total	Sum of A1-A7	Sum of B1-B7	Sum of C1-C7	Sum of D1-D7	Sum of E1-E7	Sum of F1-F7
9	Total	Sum of A8 and B8		Sum of C8 and D8		Sum of E8-F8	

Source: The formulae for both obesity and waist circumference are based on the Health Survey for England 2006.¹⁰

Example – Southwark Primary Care Trust: adults aged 16 and over

The following is an example of how to use the ready-reckoner, based on 2001 census figures for Southwark Primary Care Trust, London.

		A	B	C	D	E	F
		Southwark PCT population		Estimate of number of people who are obese (BMI greater than 30kg/m ²)		Estimate of number of people who have a raised waist circumference (Male 102cm or above. Female 88cm or above)	
	Age	Male	Female	Male	Female	Male	Female
1	16-24	17,812	18,011	1,603	2,161	1,781	3,062
2	25-34	25,894	26,865	5,438	4,836	5,438	8,060
3	35-44	21,501	20,998	5,375	5,040	6,450	7,559
4	45-54	11,960	12,478	3,349	3,369	4,545	5,615
5	55-64	8,137	8,831	2,685	2,649	3,743	4,416
6	65-74	6,421	7,213	1,991	2,525	3,275	4,328
7	75+	4,286	7,434	771	2,007	1,757	4,237
8	Sub-total	96,011	101,830	21,212	22,587	26,989	37,277
9	Total	197,841		43,799		64,266	

Obesity prevalence ready-reckoner: children aged 1-15 years

		A	B	C	D
		PCT population (Enter actual numbers)		Estimate of number of children who are obese (UK National BMI Percentile Classification*)	
	Age	Male	Female	Male	Female
1	1	Enter actual number	Enter actual number	$A1 \times 0.173$	$B1 \times 0.160$
2	2	Enter actual number	Enter actual number	$A2 \times 0.174$	$B2 \times 0.170$
3	3	Enter actual number	Enter actual number	$A3 \times 0.171$	$B3 \times 0.166$
4	4	Enter actual number	Enter actual number	$A4 \times 0.165$	$B4 \times 0.162$
5	5	Enter actual number	Enter actual number	$A5 \times 0.166$	$B5 \times 0.166$
6	6	Enter actual number	Enter actual number	$A6 \times 0.166$	$B6 \times 0.163$
7	7	Enter actual number	Enter actual number	$A7 \times 0.163$	$B7 \times 0.169$
8	8	Enter actual number	Enter actual number	$A8 \times 0.171$	$B8 \times 0.176$
9	9	Enter actual number	Enter actual number	$A9 \times 0.180$	$B9 \times 0.181$
10	10	Enter actual number	Enter actual number	$A10 \times 0.183$	$B10 \times 0.187$
11	11	Enter actual number	Enter actual number	$A11 \times 0.193$	$B11 \times 0.195$
12	12	Enter actual number	Enter actual number	$A12 \times 0.192$	$B12 \times 0.205$
13	13	Enter actual number	Enter actual number	$A13 \times 0.208$	$B13 \times 0.211$
14	14	Enter actual number	Enter actual number	$A14 \times 0.206$	$B14 \times 0.220$
15	15	Enter actual number	Enter actual number	$A15 \times 0.216$	$B15 \times 0.225$
16	Sub-total	Sum of A1-A15	Sum of B1-B15	Sum of C1-C15	Sum of D1-D15
17	Total	Sum of A16 and B16		Sum of C16 and D16	

Source: The formulae for obesity are based on the Health Survey for England 2006.¹¹

* The UK National BMI Percentile Classification defines obesity as a BMI of more than the 95th centile, and overweight as a BMI of more than the 85th centile of the UK 1990 reference chart for age and sex. (See Tool E4 in section E.)

Estimating the prevalence of obesity and central obesity among adults in ethnic groups

To model for ethnicity, using the results from the ready-reckoner as a base, apply the ethnicity breakdown for each age/gender group, and for each cell apply the following adjustment factors (derived from Table 1 on page 12) to calculate the prevalence of obesity and central obesity by age/gender/ethnicity. The resulting prevalence estimates can be summed whichever way you choose. These adjustment factors represent the national prevalence of obesity and central obesity in adults (aged 16 and over) by ethnic group compared to the general population (= 1.0).

Ethnic group	Obesity		Central obesity	
	Men	Women	Men	Women
Black Caribbean	1.11	1.38	0.71	1.15
Black African	0.75	1.66	0.61	1.29
Indian	0.61	0.87	0.65	0.93
Pakistani	0.67	1.21	0.97	1.17
Bangladeshi	0.26	0.74	0.39	1.05
Chinese	0.26	0.33	0.26	0.39

Estimating the prevalence of overweight among adults

A modified version of the ready-reckoner can be used to estimate the number of overweight people – those with a BMI more than 25kg/m² – using the data on prevalence of overweight in different age groups from the Health Survey for England 2006. To estimate the prevalence of overweight for ethnic groups, follow the same procedure as described above. Use Table 1 on page 12 to calculate the adjustment factors.

Primary care organisation (PCO) level model-based estimate of adult obesity

Another way of assessing local prevalence of adult (aged 16 and over) obesity is using model-based estimates produced by the NHS Information Centre for Health and Social Care. These estimates are calculated using pooled 2003-05 Health Survey for England (HSE) data. However, because statistical modelling was used, prevalence data should be applied with caution.¹⁴⁷

Note:

Statistical modelling was used to produce the PCO-level model-based estimates because the sample size of national surveys is too small at local area level to provide reliable direct estimates. The model-based estimate for a particular local area is the expected prevalence for that area based on its population characteristics (as measured by the census/administrative data) and as such does not represent an estimate of the actual prevalence for the local area. Confidence intervals are provided in order to make the margin of error around the estimates clear.

To view the PCO-level model-based estimates for adult obesity, go to www.ic.nhs.uk



TOOL D3 Estimating the local cost of obesity

TOOL D3

For:	Commissioners in primary care trusts (PCTs)
About:	This tool provides estimates of the annual costs to the NHS of diseases related to overweight and obesity and obesity alone, broken down to PCT level. Estimated costs have been based on a disaggregation of the national estimates calculated by Foresight (for selected years 2007-2015). See <i>Setting local goals</i> in Section C.
Purpose:	To give an understanding of the scale of the problem to the NHS in PCTs if current trends continue.
Use:	- Can be used for understanding the problem in your PCT – case for funding. - Can be used for evaluation and monitoring purposes. The data can be used as a baseline and for monitoring interventions relating to reducing costs to NHS.
Resource:	<i>Modelling future trends in obesity and the impact on health. Foresight tackling obesities: Future choices.</i> ¹⁶ www.foresight.gov.uk

The estimated annual costs to the NHS of diseases related to overweight and obesity (BMI 25kg/m² or more) and obesity alone (BMI 30kg/m² or more), by PCT, are provided below.

The costs have been estimated using the national estimates calculated by Foresight. A microsimulation model was used to forecast costs to the NHS of the consequences of overweight and obesity. No inflation costs, either of prices generally or healthcare costs in particular, were incorporated within the costs, so this allows for direct comparison to current prices. Future BMI-related costs were approximated by subtracting estimates of current NHS costs of obesity from projected costs derived from the model. Further information about the microsimulation model can be found at www.foresight.gov.uk

Estimated annual costs to NHS of diseases related to overweight and obesity (BMI 25kg/m² or more) and obesity alone (BMI 30kg/m² or more), by PCT

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Government Office for the North East						
County Durham PCT	156.7	162.7	173.9	81.3	88.1	101.1
Darlington PCT	27.6	28.6	30.6	14.3	15.5	17.8
Gateshead PCT	61.9	64.3	68.7	32.1	34.8	39.9
Hartlepool PCT	29.3	30.4	32.5	15.2	16.5	18.9
Middlesbrough PCT	45.8	47.5	50.8	23.7	25.7	29.5
Newcastle PCT	81.1	84.1	90	42.1	45.6	52.3
North Tees PCT	51.9	53.9	57.6	26.9	29.2	33.5
North Tyneside PCT	58.9	61.2	65.4	30.6	33.1	38
Northumberland Care Trust	85.7	88.9	95.1	44.4	48.1	55.3

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Redcar and Cleveland PCT	41	42.5	45.5	21.3	23	26.4
South Tyneside PCT	48.8	50.7	54.2	25.3	27.4	31.5
Sunderland Teaching PCT	88.4	91.7	98.1	45.9	49.7	57
Government Office for the North West						
Ashton, Leigh and Wigan PCT	90.8	94.3	100.8	47.1	51	58.6
Blackburn with Darwen PCT	46.4	48.1	51.4	24.1	26	29.9
Blackpool PCT	45.8	47.5	50.8	23.8	25.7	29.6
Bolton PCT	78.3	81.3	86.9	40.6	44	50.5
Bury PCT	50	51.9	55.5	26	28.1	32.3
Central and Eastern Cheshire PCT	111.4	115.6	123.6	57.8	62.6	71.9
Central Lancashire PCT	119.2	123.7	132.3	61.8	67	76.9
Cumbria PCT	136.8	141.9	151.8	71	76.9	88.2
East Lancashire PCT	110.1	114.2	122.2	57.1	61.9	71
Halton and St Helens PCT	95.3	98.9	105.8	49.5	53.6	61.5
Heywood, Middleton and Rochdale PCT	63.4	65.8	70.4	32.9	35.6	40.9
Knowsley PCT	55	57.1	61	28.5	30.9	35.5
Liverpool PCT	163.6	169.8	181.5	84.9	91.9	105.5
Manchester PCT	166.8	173.1	185.1	86.6	93.7	107.6
North Lancashire PCT	90.5	93.9	100.4	47	50.9	58.4
Oldham PCT	67.5	70.1	74.9	35	37.9	43.6
Salford PCT	73.3	76.1	81.3	38	41.2	47.3
Sefton PCT	82.1	85.2	91.1	42.6	46.1	52.9
Stockport PCT	74.4	77.2	82.6	38.6	41.8	48
Tameside and Glossop PCT	66.8	69.3	74.1	34.6	37.5	43.1
Trafford PCT	57.5	59.7	63.8	29.8	32.3	37.1
Warrington PCT	51.2	53.1	56.8	26.6	28.8	33
Western Cheshire PCT	65.6	68.1	72.8	34	36.8	42.3
Wirral PCT	98.5	102.2	109.3	51.1	55.3	63.6
Government Office for Yorkshire and The Humber						
Barnsley PCT	72.3	75.1	80.3	37.5	40.6	46.7
Bradford and Airedale PCT	142.6	148	158.3	74	80.1	92
Calderdale PCT	53	55	58.8	27.5	29.8	34.2
Doncaster PCT	88.4	91.7	98.1	45.9	49.7	57
East Riding of Yorkshire PCT	76.4	79.3	84.8	39.7	43	49.3
Hull PCT	78.8	81.8	87.4	40.9	44.3	50.8
Kirklees PCT	103.4	107.3	114.8	53.7	58.1	66.7

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Leeds PCT	197.4	204.9	219.1	102.4	110.9	127.4
North East Lincolnshire PCT	45.2	46.9	50.1	23.4	25.4	29.1
North Lincolnshire PCT	42	43.6	46.6	21.8	23.6	27.1
North Yorkshire and York PCT	186.6	193.6	207.1	96.8	104.8	120.4
Rotherham PCT	72.2	74.9	80.1	37.4	40.6	46.6
Sheffield PCT	148.7	154.3	165	77.1	83.6	95.9
Wakefield District PCT	98.5	102.3	109.3	51.1	55.4	63.6
Government Office for the East Midlands						
Bassetlaw PCT	29.6	30.8	32.9	15.4	16.7	19.1
Derby City PCT	73.4	76.2	81.5	38.1	41.3	47.4
Derbyshire County PCT	184.3	191.3	204.5	95.6	103.5	118.9
Leicester City PCT	86.6	89.9	96.1	45	48.7	55.9
Leicestershire County and Rutland PCT	147.6	153.2	163.8	76.6	83	95.3
Lincolnshire PCT	187.9	195	208.6	97.5	105.6	121.3
Northamptonshire PCT	167.6	173.9	186	86.9	94.2	108.1
Nottingham City PCT	85.1	88.3	94.4	44.1	47.8	54.9
Nottinghamshire County PCT	166.8	173.1	185.1	86.5	93.7	107.6
Government Office for the West Midlands						
Birmingham East and North PCT	122.5	127.2	136	63.6	68.9	79.1
Coventry Teaching PCT	96.1	99.7	106.6	49.8	54	62
Dudley PCT	80.9	84	89.8	42	45.5	52.2
Heart of Birmingham Teaching PCT	92.9	96.5	103.1	48.2	52.2	60
Herefordshire PCT	46.3	48.1	51.4	24	26	29.9
North Staffordshire PCT	54.7	56.8	60.7	28.4	30.7	35.3
Sandwell PCT	94.1	97.6	104.4	48.8	52.9	60.7
Shropshire County PCT	72.4	75.1	80.3	37.5	40.7	46.7
Solihull Care Trust	51.4	53.4	57.1	26.7	28.9	33.2
South Birmingham PCT	100.9	104.8	112	52.4	56.7	65.1
South Staffordshire PCT	143.7	149.2	159.5	74.6	80.8	92.7
Stoke on Trent PCT	77.9	80.8	86.4	40.4	43.8	50.3
Telford and Wrekin PCT	42.8	44.4	47.5	22.2	24.1	27.6
Walsall Teaching PCT	74.4	77.2	82.5	38.6	41.8	48
Warwickshire PCT	131.6	136.5	146	68.3	73.9	84.9
Wolverhampton City PCT	73.8	76.6	81.9	38.3	41.5	47.6
Worcestershire PCT	136.6	141.8	151.6	70.9	76.8	88.1

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Government Office for the East of England						
Bedfordshire PCT	98.8	102.6	109.7	51.3	55.5	63.8
Cambridgeshire PCT	138.3	143.5	153.5	71.7	77.7	89.2
East and North Hertfordshire PCT	134.4	139.4	149.1	69.7	75.5	86.7
Great Yarmouth and Waveney PCT	65.4	67.9	72.6	33.9	36.8	42.2
Luton PCT	50.7	52.6	56.2	26.3	28.5	32.7
Mid Essex PCT	82	85.1	91	42.5	46.1	52.9
Norfolk PCT	188.7	195.8	209.4	97.9	106	121.7
North East Essex PCT	86.3	89.6	95.8	44.8	48.5	55.7
Peterborough PCT	42.7	44.4	47.4	22.2	24	27.6
South East Essex PCT	88	91.3	97.6	45.6	49.4	56.8
South West Essex PCT	106.3	110.3	117.9	55.1	59.7	68.6
Suffolk PCT	146.4	152	162.5	76	82.3	94.5
West Essex PCT	66.7	69.2	74	34.6	37.5	43
West Hertfordshire PCT	130.8	135.8	145.2	67.9	73.5	84.4
Government Office for London						
Barking and Dagenham PCT	54.6	56.7	60.6	28.3	30.7	35.2
Barnet PCT	85.1	88.3	94.4	44.1	47.8	54.9
Bexley Care Trust	55.5	57.6	61.6	28.8	31.2	35.8
Brent Teaching PCT	83	86.2	92.2	43.1	46.7	53.6
Bromley PCT	77.2	80.1	85.7	40.1	43.4	49.8
Camden PCT	74.6	77.4	82.8	38.7	41.9	48.1
City and Hackney Teaching PCT	85.3	88.5	94.6	44.2	47.9	55
Croydon PCT	88.9	92.2	98.6	46.1	49.9	57.3
Ealing PCT	89	92.4	98.8	46.2	50	57.4
Enfield PCT	75.7	78.6	84.1	39.3	42.6	48.9
Greenwich Teaching PCT	73	75.8	81	37.9	41	47.1
Hammersmith and Fulham PCT	53.4	55.4	59.2	27.7	30	34.4
Haringey Teaching PCT	73.7	76.5	81.8	38.2	41.4	47.6
Harrow PCT	50.9	52.8	56.4	26.4	28.6	32.8
Havering PCT	65.2	67.7	72.4	33.9	36.7	42.1
Hillingdon PCT	63.6	66	70.6	33	35.8	41.1
Hounslow PCT	60.8	63.1	67.5	31.6	34.2	39.3
Islington PCT	66.3	68.8	73.6	34.4	37.3	42.8
Kensington and Chelsea PCT	56	58.1	62.1	29.1	31.5	36.1
Kingston PCT	39.7	41.1	44	20.6	22.3	25.6
Lambeth PCT	88.6	91.9	98.3	46	49.8	57.1

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Lewisham PCT	76.2	79.1	84.5	39.5	42.8	49.1
Newham PCT	92.6	96.1	102.8	48.1	52.1	59.8
Redbridge PCT	62.3	64.7	69.1	32.3	35	40.2
Richmond and Twickenham PCT	42.4	44	47.1	22	23.8	27.4
Southwark PCT	83	86.1	92.1	43.1	46.6	53.5
Sutton and Merton PCT	93.8	97.4	104.1	48.7	52.7	60.5
Tower Hamlets PCT	80.9	84	89.8	42	45.5	52.2
Waltham Forest PCT	68	70.6	75.5	35.3	38.2	43.9
Wandsworth PCT	74.1	76.9	82.2	38.4	41.6	47.8
Westminster PCT	70.2	72.9	77.9	36.4	39.4	45.3
Government Office for the South East						
Brighton and Hove City PCT	75.3	78.1	83.5	39.1	42.3	48.6
East Sussex Downs and Weald PCT	88.2	91.5	97.9	45.8	49.6	56.9
Eastern and Coastal Kent PCT	201.8	209.5	224	104.7	113.4	130.2
Hastings and Rother PCT	52.2	54.2	58	27.1	29.4	33.7
Medway PCT	69.7	72.3	77.4	36.2	39.2	45
Surrey PCT	251.3	260.8	278.8	130.4	141.2	162.1
West Kent PCT	160	166.1	177.6	83	89.9	103.3
West Sussex PCT	199.5	207	221.4	103.5	112.1	128.7
Berkshire East PCT	91	94.5	101	47.2	51.2	58.7
Berkshire West PCT	103.5	107.4	114.8	53.7	58.1	66.7
Buckinghamshire PCT	113.6	117.9	126.1	59	63.8	73.3
Hampshire PCT	300.8	312.2	333.8	156.1	169	194.1
Isle of Wight NHS PCT	41.9	43.5	46.5	21.8	23.6	27.1
Milton Keynes PCT	56.9	59	63.1	29.5	31.9	36.7
Oxfordshire PCT	143.4	148.8	159.1	74.4	80.6	92.5
Portsmouth City Teaching PCT	50.1	52	55.6	26	28.2	32.3
Southampton City PCT	65.2	67.6	72.3	33.8	36.6	42.1
Government Office for the South West						
Bath and North East Somerset PCT	44.1	45.8	49	22.9	24.8	28.5
Bournemouth and Poole PCT	89.5	92.8	99.3	46.4	50.3	57.7
Bristol PCT	111.6	115.8	123.9	57.9	62.7	72
Cornwall and Isles of Scilly PCT	145.1	150.6	161	75.3	81.5	93.6
Devon PCT	190.5	197.7	211.4	98.8	107	122.9
Dorset PCT	102.4	106.2	113.6	53.1	57.5	66
Gloucestershire PCT	143.7	149.1	159.5	74.6	80.7	92.7
North Somerset PCT	51.4	53.4	57.1	26.7	28.9	33.2

	Estimated annual costs to NHS of diseases related to overweight and obesity £ million			Estimated annual costs to NHS of diseases related to obesity £ million		
	2007	2010	2015	2007	2010	2015
Plymouth Teaching PCT	68.5	71	76	35.5	38.5	44.2
Somerset PCT	133.8	138.8	148.4	69.4	75.2	86.3
South Gloucestershire PCT	54.8	56.9	60.8	28.4	30.8	35.3
Swindon PCT	48	49.8	53.3	24.9	27	31
Torbay Care Trust	42.4	44	47.1	22	23.8	27.4
Wiltshire PCT	106.6	110.6	118.3	55.3	59.9	68.8
FORESIGHT estimate of national annual costs to NHS	Elevated BMI (£ million)			Obesity (£ million)		
	2007	2010	2015	2007	2010	2015
	13,891	14,416	15,415	7207	7,805	8,962

Notes:

Costs are calculated at 2004 prices.

It is assumed the BMI distribution for England changes in line with current trends.

Note:

NICE has produced a report which attempts to estimate the cost of implementing the NICE guidelines on obesity.¹⁴² This report estimates the cost of: treatment of obese/overweight children with co-morbidities (referral to a specialist, drug treatment for some children); bariatric surgery for very obese adults; and staff training in prevention and management of obesity. To view the report, visit www.nice.org.uk



TOOL D4 Identifying priority groups

TOOL D4

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool describes how local areas can access and use the national segmentation analysis produced by the Department of Health through a step-by-step guide.
Purpose:	- To provide local areas with an understanding of why the three priority groups were selected for national intervention. - To explain how the segmentation analysis can be used at a local level.
Use:	- Can be used to identify priority groups in local areas. - The segmentation analysis can be used to further define particular clusters in local areas.
Resource:	<i>Insights into child obesity: A summary.</i> A draft of this report is available to PCTs and LAs through their Regional Public Health Group. A final report will be published in late 2008.

National segmentation of families with children aged 2-11

A quantitative segmentation of the population aged 2-11 years was carried out by the Department of Health to help better understand the behaviours that lead to individuals becoming overweight and obese, and to understand which behaviours are common within different clusters in society. Segmenting individuals and families into clusters allows interventions to help support behaviour change – for instance the National Marketing Plan – to be prioritised to the groups with the greatest need, and to tailor the interventions to those needs, increasing their effectiveness.

Analysis showed that children aged 2-11 years and their families could be divided into six broad groups or clusters according to their attitudes and behaviours relating to diet and physical activity, in addition to their demographic make-up, levels of food consumption, socioeconomic grouping, education and employment. The clusters were further developed using qualitative research with the aim of gaining insight from which to design behaviour-change interventions among parents and children. Of the six clusters, three demonstrated common behaviours that put them most 'at risk' of developing obesity – and indeed these clusters had the highest rates of adult and child obesity. These three clusters are the priority clusters within the National Marketing Plan.

The three priority clusters can also be used by local areas to better target interventions to promote healthy weight, leading to more effective interventions and use of public resources. **Local authorities and PCTs can access a draft report that describes the six clusters in detail via the obesity lead in their Regional Public Health Group, or by emailing healthyweight@dh.gsi.gov.uk.** A final version of the report will be published in late 2008, informed by continuing research. In the meantime, the Cross-Government Obesity Unit welcomes feedback on the draft report.

Using the segmentation analysis at a local level – a step-by-step guide

Step 1 – Prioritise clusters 1, 2 and 3 as key intervention groups, in line with national policy.

For details of how to access information on the priority clusters, see page 101.

Step 2 – Use socioeconomic data to identify the most likely areas with the target clusters.

A number of organisations can assist with mapping high-risk groups and identifying deprivation levels:

- Public Health Observatories – www.apho.org.uk/apho
- The North East Public Health Observatory has an on-line mapping facility which can identify obesity rates at PCT and ward level (North East region data only) www.nepho.org.uk
- University of Sheffield Public Health GIS Unit – gis.sheffield.ac.uk
- Communities and Local Government – Indices of Deprivation – www.communities.gov.uk
- Local academic departments – www.hero.ac.uk

Commercial organisations can also help with mapping.

Key point

To further support the identification of the clusters at a local level, the Department of Health is undertaking a mapping exercise to provide PCTs with information on where they might find clusters within their local population and in what proportion (current percentage sizes given are based on the national sample). This work will be undertaken with CACI using their Health Acorn product and the outputs will be comparable with MOSAIC codes. Maps and data tables will be available at www.dh.gov.uk in late 2008.

Step 3 – Bring together local focus groups of target clusters 1, 2 and 3.

To further inform the selection of target intervention groups, local areas may want to conduct independent qualitative research. Focus groups can be used to identify those families who most need help and support to change behaviours, but also to help align local research programmes with national research.

Step 4 – Tailor your interventions to fit the attitudes, behaviours and barriers elicited by each cluster focus group.



See **Tools D8, D9 and D10** for more information on choosing interventions, targeting behaviours and communicating to key target groups.

CASE STUDY – The People’s Movement, Sheffield

Sheffield City Council and Sheffield First for Health and Well-being have set up a physical activity campaign, ‘The People’s Movement’, which encourages people to make positive choices around increasing the amount of physical activity they do. Further details are provided in the table below.

Aim – Behavioural goal	To encourage and support people to be more physically active and to promote 30 minutes’ exercise on as many days as possible, broken down into bite-size chunks of 10 minutes.
Market research	Health professionals were consulted when designing the campaign. No focus groups or research were conducted with the target audience.
Segmentation	The target audience was segmented by current behaviour: 1 <i>Those already active</i> – the campaign aimed to keep them active (behavioural reinforcement). 2 <i>The nearly active</i> – those doing some activity but not reaching minimum recommended levels. The campaign encouraged them to do more (positive behavioural promotion). 3 <i>The inactive</i> – the campaign aimed to encourage them to try activities and begin to build activity into their lives (behavioural change).
Intervention	Different interventions for different segments of the target audience were designed: <i>Behavioural reinforcement</i> • Celebrating a community champion • A young people’s physical activity campaign promoted through competitions. <i>Positive behavioural promotion</i> • A website with information and a personalised activity diary • Events such as walking festivals, belly dancing and salsa nights. <i>Behavioural change</i> • DVDs to enable beginners to train to participate in a 3k run • Leaflets and large street-based posters carrying powerful messages about the benefits of exercising • Promoting local parks and leisure facilities. Participants could also register to be sent personalised details of events happening in their community that may appeal to them.
Evaluation	No evaluation has yet been conducted. However, there are plans to do an evaluation which will look at awareness.
Further information	www.thepeoplesmovement.co.uk



TOOL D5 Setting local goals

TOOL D5

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool provides advice from the Department of Health on setting local goals using National Child Measurement Programme (NCMP) prevalence estimates. ¹⁴⁸ It also provides advice on establishing intervention objectives – a list of National Indicators of success relevant to obesity is provided. Refer to Tool D14 Monitoring and evaluation: a framework .
Purpose:	To give local areas an understanding of how to establish local plans that are based on achieving a change in obesity prevalence.
Use:	• Should be used to set local goals. • Can be used to establish objectives. • Can be used for evaluation and monitoring purposes. Data can be used as performance indicators.
Resource:	<i>How to set and monitor goals for prevalence of child obesity: Guidance for primary care trusts (PCTs) and local authorities.</i> ¹⁴¹ www.dh.gov.uk

Setting local goals

All local areas have already set their goals for tackling obesity over the period 2008/09 to 2010/11, either through PCT plans, or additionally in local area agreements. However, this tool summarises the Department of Health's guidance on setting local goals¹⁴⁹ as it is useful to remember what underpins those targets.

Currently, based on Health Survey for England data, the estimated prevalence of obesity in children in both Reception and Year 6 is rising at a yearly rate of around 0.5% points. The Department of Health suggests that local authorities and PCTs should establish **local plans that are based on achieving a change in prevalence in each of the three years that better the current national trend** – that is, an increase of less than 0.5% points, or no increase at all, or a reduction in obesity. In order that local authorities and PCTs can achieve this change in prevalence, the Department of Health has calculated what percentage changes in obesity prevalence in Reception and Year 6 would be needed by 2010/11 to achieve a statistically significant improvement on the current trend. These data are available at www.dh.gov.uk and are based on NCMP 2006/07 prevalence estimates.¹⁴⁸ Because numbers measured and prevalence will be different for future years of the NCMP, the figures are indicative, but they give a reasonable approximation of the change that needs to be recorded to be statistically significantly less than the national trend.

Note:

These figures provide both 95% and 75% confidence levels. Use of a higher confidence level reduces the risk of incorrectly concluding that a significant improvement in prevalence of child obesity has been achieved. (At 95%, the risk is 1 in 20; at 75%, the risk is 1 in 4.) However, use of a higher confidence level means that a greater change in prevalence is needed for it to be deemed a significant change. In some areas, it may be necessary to sacrifice confidence to some extent in order to set a goal that is achievable. The required changes associated with the 95% and 75% confidence levels could be used as upper and lower limits to inform local negotiations on goal setting.

Step-by-step guide

Barking and Dagenham local authority has been used here as a worked example to show what steps local authorities and PCTs need to take to set a goal to achieve a statistically significant improvement on the current national trend (of annual rises in levels of child obesity of 0.5% points) by 2010/11.

Step 1 – Local authorities choose whether to set a goal for Reception Year, or Year 6, or both. PCTs have to use both for their plans, as required by the Operating Framework.

Local authority decisions should be based on current levels of prevalence for each year, the coherence of any goal with others being set (eg on school food), and whether they are jointly setting goals with the local PCT. Government offices and strategic health authorities will of course discuss these decisions with local authorities and PCTs. For the basis of this worked example, it is assumed that Barking and Dagenham local authority choose both years.

Step 2 – Determine what confidence level to use, and look up the required change by 2010/11 at that confidence level. (Go to www.dh.gov.uk for data.)

The confidence level chosen is in part a reflection of how ambitious local areas feel that they can be. The Department of Health would urge as many areas as possible to choose the 95% level of confidence.

Whatever level is chosen, for some areas this will mean that they need to record a reduction in their prevalence of child obesity if they are to be confident of achieving a statistically significant reduction in growth versus the national average growth of 0.5% points. For other areas, this requirement can be met by recording a reduced, but still increasing, level of growth in prevalence.

For Barking and Dagenham, using NCMP (2006/07) data,¹⁴⁸ the figures would be as follows:

Reception year:

- Current prevalence is 14.4%.
- Required change by 2010/11 to be 95% confident of reducing growth in prevalence below the national trend is -1.1% points, ie 13.3%.

Year 6:

- Current prevalence is 20.8%.
- Required change by 2010/11 to be 95% confident of reducing growth in prevalence below the national trend is -1.9% points, ie 18.9%.

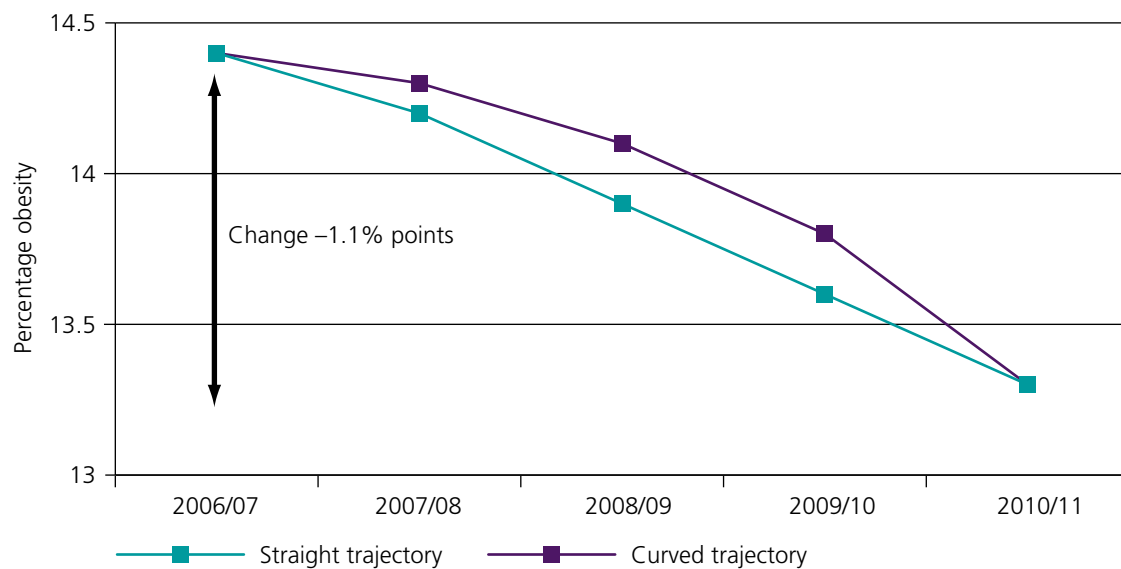
Step 3 – Set trajectory

Once the final goal for 2010/11 has been set, a trajectory for the change in prevalence to 2010/11 must be chosen. If areas are using the latest NCMP data, for 2006/07, as a baseline for their goal, the trajectory will also need to include 2007/08, as well as 2008/09 to 2010/11. Areas that already have established initiatives to tackle child obesity may feel that a straight line trajectory would be more appropriate for them. However, areas where initiatives are in their infancy may want to set a curved trajectory, where a greater proportion of the change is achieved in the later years of the period to 2010/11.

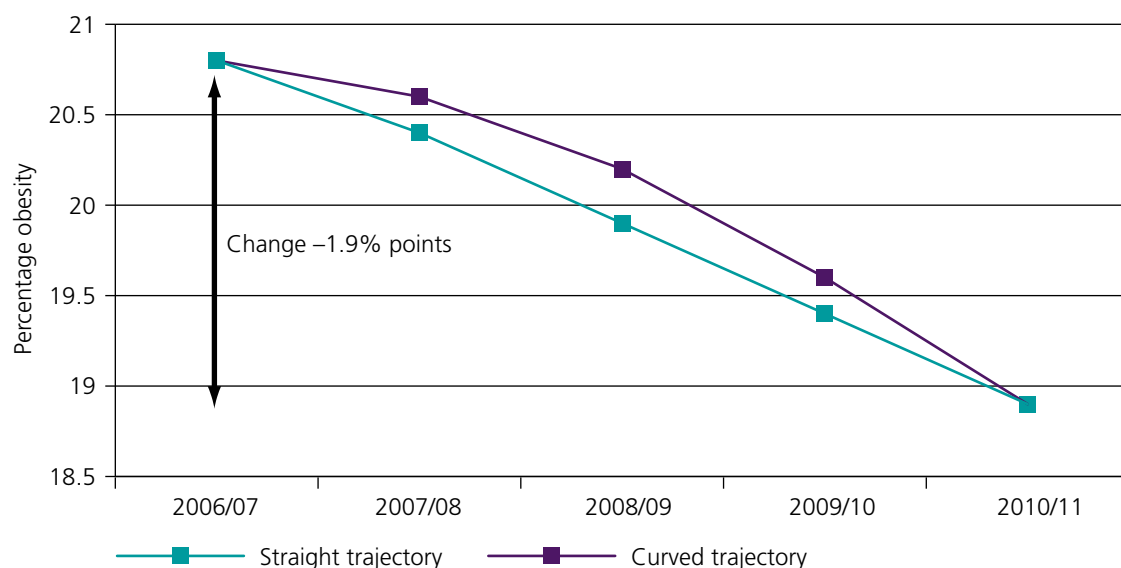
For Barking and Dagenham, the trajectory, whether straight or curved, would look as follows:

Target obesity levels for Reception and Year 6 children, Barking and Dagenham, 2006-07 to 2010-11

Reception children



Year 6 children



Setting objectives



Once the local goal has been set (eg to reduce prevalence by 1.9%), local areas can establish intervention objectives in order to reach that goal. **Tool D7** sets out what success looks like against a range of behaviours and these can be used to set local objectives. A wide range of data can be used to measure success against local objectives and the following table provides a list of the National Indicators of success relevant to obesity.¹³⁷

National Indicators of success relevant to the Department of Health's key themes

Children: healthy growth and healthy weight	
NI 50	Emotional health of children
NI 52	Take-up of school lunches
NI 53	Prevalence of breastfeeding at 6-8 weeks from birth
NI 55	Obesity among primary school age children in Reception
NI 56	Obesity among primary school age children in Year 6
NI 57	Children and young people's participation in high-quality PE and sport
NI 69	Children who have experienced bullying
NI 198	Children travelling to school – mode of travel usually used
Promoting healthier food choices	
NI 119	Self-reported measures of people's overall health and wellbeing
NI 120	All-age, all-cause mortality rate
NI 121	Mortality rate from all circulatory diseases at ages under 75
NI 122	Mortality rate from all cancers at ages under 75
NI 137	Healthy life expectancy at age 65
Building physical activity into our lives	
NI 8	Adult participation in sport
NI 17	Individuals' perceptions of crime and anti-social behaviour
NI 47 and 48	Reduction in road traffic accidents
NI 175	Access to services by public transport, walking and cycling
NI 186	Per capita CO ₂ emissions in the local authority area
NI 188	Adapting to climate change
NI 198	Children travelling to school – mode of travel usually used
Creating incentives for better health	
NI 8	Adult participation in sport
NI 119	Self-reported measure of people's overall health and wellbeing
NI 120	All-age, all-cause mortality rate
NI 121	Mortality rate from all circulatory diseases at ages under 75
NI 122	Mortality rate from all cancers at ages under 75
NI 137	Healthy life expectancy at age 65
NI 152 and 153	Working-age people claiming out-of-work benefits
NI 173	People falling out of work and onto incapacity benefits
Personalised support for overweight and obese individuals	
NI 120	All-age, all-cause mortality rate
NI 121	Mortality rate from all circulatory diseases at ages under 75
NI 122	Mortality rate from all cancers at ages under 75
NI 137	Healthy life expectancy at age 65



Refer to **Tool D14 Monitoring and evaluation: a framework** for advice on using the indicators for evaluation purposes.



TOOL D6 Local leadership

TOOL D6

For:	Commissioners in primary care trusts and local authorities
About:	This tool provides a list of key local leaders (actors) in delivering the obesity strategy. It details the rationale for their involvement, their role in promoting a healthy weight, and how to engage them.
Purpose:	To show which actors could be engaged in local obesity strategies. Please note that the roles set out in this tool will not be appropriate for every area, but they may provide a helpful starting point.
Use:	Should be used as a guide for recruiting actors.
Resource:	<i>Healthy Weight, Healthy Lives: Guidance for local areas.</i> ² www.dh.gov.uk

Outline of roles and responsibilities of key actors within the obesity delivery chain

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Whole strategy			
Strategic leadership in the primary care trust (PCT) acting with partners in the Local Strategic Partnership (LSP) and Children's Trust	- NHS Operating Framework¹⁴⁹ <i>How to set and monitor goals for prevalence of child obesity: guidance for primary care trusts (PCTs) and local authorities</i>¹⁴¹ - The Every Child Matters (ECM) agenda specifically includes promoting children's health - Statutory duties and guidance for PCTs, local authorities, strategic health authorities (SHAs) and key partners to promote Every Child Matters (ECM) outcomes and reduce inequalities in the outcomes of 0-5 year olds - Guidance on Joint Strategic Needs Assessment	Local Strategic Partnership (LSP): - setting the vision for the local area - carrying out strategic needs assessment - discussing and agreeing local priorities and targets for the Local Area Agreements (LAAs) - developing the Sustainable Community Strategy. Within the LSP 'umbrella', Children's Trust partnership arrangements: - work in partnership to promote the five Every Child Matters outcomes for children and young people - reduce inequalities in ECM outcomes for 0-5s - agree the Children's and Young People's Plan Complementary with <i>Healthy Weight, Healthy Lives</i> The five ECM outcomes include <i>Healthy Weight, Healthy Lives</i>,¹ and are: <i>being healthy</i> – physical, mental, emotional wellbeing – living a healthy lifestyle <i>staying safe</i> – protection from harm and neglect – growing up able to look after themselves <i>enjoying and achieving</i> – education, training and recreation – getting the most out of life and developing broad skills for adulthood <i>making a positive contribution</i> – to community and society – not engaging in anti-social behaviour <i>social and economic wellbeing</i> – overcoming socioeconomic disadvantages to achieve full potential in life	- Ensure obesity is high on local agenda, with key strategic leaders within PCT, local authority (LA) and partner organisations informed about (using National Child Measurement Programme (NCMP) and other data) and prepared to promote obesity issues, making the links across projects and programmes eg transport and sustainability planning - PCTs, LAs and other partners develop and agree evidence-driven obesity plans using NCMP data and other data Outcomes: <i>Healthy Weight, Healthy Lives</i>¹ is a clearly defined element within strategic plans - Robust and realistic Vital Signs obesity delivery plans are mirrored in LAA delivery plans where obesity and/or related indicators are chosen as LAA priority (from the National Indicator Set)
Children: Healthy growth and healthy weight			
PCT/LA service commissioners	Joint Planning and Commissioning Framework for Children, Young People and Maternity Services¹⁵⁰	Local partnerships use the Joint Commissioning Framework to create a unified system for pooling budgets and providing children's services to meet the needs identified in the strategic needs assessment – within which <i>Healthy Weight, Healthy Lives</i>¹ should be clearly defined	- Ensure local commissioners are informed and prepared to commission and fund services so that <i>Healthy Weight, Healthy Lives</i>¹ and the revised Child Health Promotion Programme¹⁵¹ are firmly embedded in sustainable service commissioning - Local Trusts have local protocols to support the management of obese pregnant women that take account of the needs of these women, and the facilities and services available to them. Arrangements through maternity and neonatal networks support these mothers and their babies

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Family Information Services (FIS) (formerly Children's Information Services)	Statutory duties on LAs and guidance	LAs strategically leading and providing an integrated service offering the information parents need to support their children up to their 20th birthday: - comprehensive, accurate, easily accessible information to support all parents, including fathers as well as mothers and all with care of a child or young person eg grandparents - local services and references to national services/information available through websites and helplines - must reach out to disadvantaged families who may benefit most from services, and provide information in ways that will overcome barriers to access	LA Early Years Lead
Midwives	- Professional expertise and codes of conduct - The National Institute for Health and Clinical Excellence (NICE) guidance⁶ - Delivering the revised Child Health Promotion Programme (CHPP)¹⁵¹	- Supporting obese women to lose weight before and after pregnancy through a structured and tailored programme that combines advice on healthy eating and physical exercise with ongoing support to allow for sustained lifestyle changes - During pregnancy promoting health and lifestyle advice to include diet and weight control. Encouraging regular physical activity, at an appropriate level, as part of the antenatal care programme - Promotion of benefits of breastfeeding - Following the CHPP schedule to identify families with children at risk of becoming obese - Referral of at-risk families to other services (eg GP) where appropriate - Encouraging regular physical activity, at an appropriate level, during pregnancy and as part of the antenatal care programme	PCT Early Years Lead (and LA Early Years Lead)
Health visitors	- CHPP¹⁵¹ - Other guidance (eg NICE obesity guidance⁶)	- Leading teams implementing CHPP – focusing on the early identification and prevention of obesity through promoting breastfeeding, healthy weaning and eating, and healthy activity to all families with babies and young children – in health settings including Children's Centres, general practice and in homes - Following the CHPP schedule to identify families with children at risk of becoming obese, providing them with more intensive support and referring to other services where appropriate	- PCT Early Years Lead - LA Early Years Lead, particularly to link with local Sure Start
Sure Start Children's Centre managers and staff	- Sure Start Children's Centre guidance¹⁵² - CHPP¹⁵¹	- Integrated multi-agency services for families with young children aged 0–5 years, focused on most disadvantaged areas - Key delivery vehicle for health priorities and targets, including encouraging take-up of breastfeeding and reducing obesity rates for parents and young children - Delivering the revised CHPP (led by health visitors)	- LA Early Years Lead and other LA colleagues responsible for supply and quality of Early Years provision and school standards - PCT Early Years Lead – promoting health activities in Children's Centres such as midwives providing antenatal and postnatal care
Early Years workforce providing integrated care and learning for 0-5 year olds, including childminders and staff in schools and private nurseries	Early Years providers governed by statutory duties, regulation and inspection by Ofsted, and requirement to deliver the Early Years Foundation Stage (EYFS)¹⁰¹	- The EYFS requires young children's physical wellbeing and health to be promoted as part of learning through play, with opportunities for physical activity (including outdoor play wherever possible) - All meals, snacks and drinks provided are healthy, balanced and nutritious - Parents and carers are involved as partners in the learning and development of their children	- PCT Early Years Lead - LA Early Years Lead and other LA colleagues responsible for supply and quality of Early Years provision and school standards
Nominated Health Professionals in multi-agency Family Intervention Projects (FIPs)	Resource Manual for Nominated Health Professionals working with FIPs	Multi-agency teams, including health, working to support challenging, vulnerable and marginalised families. Evidence from FIP studies suggests that poor nutrition is a common feature in many of the families involved, with over 50% of FIP children already being obese	- PCT and LA Early Years Leads - Where FIPs are being delivered, support Nominated Health Professionals to tackle <i>Healthy Weight, Healthy Lives</i>¹ nutrition and activity issues

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Family Nurse Partnerships (FNPs)	- CHPP and other plans and guidance - Integral part of detailed programme manuals	- Evidence-based intensive home visiting preventive programme for the most at-risk young, first time mothers - Delivered by skilled nurses (health visitors, midwives, school nurses) to improve the outcomes of the most at-risk children and families - The strength-based, licensed programme begins in early pregnancy and continues until the child is two years old - Focus on healthy lifestyle and nutrition in pregnancy - Supporting parents in breastfeeding, healthy weaning and eating and healthy activity for all the family - Delivery of CHPP	- PCT and LA Early Years Leads - Where FNPs are being delivered, support Family Nurses to tackle <i>Healthy Weight, Healthy Lives</i>,¹ nutrition and activity issues
School nurses	CHPP¹⁵¹	- Advice on healthy nutrition and regular physical activity - Signposting to programmes in extended school services and community-based programmes - Collection of height and weight data for the NCMP	- PCT Early Years Lead - LA lead contact for schools through Children's Trust arrangements
Schools: Governors	New duty on governors of maintained schools to promote five ECM outcomes of their pupils (s.38 Education and Inspections Act 2006)¹⁵³	Guidance for governors on the new duty was published for consultation in July 2008	LA lead contact for schools through Children's Trust arrangements and direct contact with schools through school nurses
Schools: Head teachers and school staff	Linked to the new duty on governors of maintained schools to promote five ECM outcomes of their pupils (s.38 Education and Inspections Act 2006)¹⁵³	- Implementing plans fulfilling the duty on school governors to promote the five ECM outcomes - Ensuring Healthy School status is acquired and maintained where appropriate - Encouraging extended services to promote <i>Healthy Weight, Healthy Lives</i>¹ - Ensuring whole-school approach to school food: - school lunches that meet nutritional standards - no vending machines - water freely available - agreed policies with parents on packed lunches - on-site lunchtimes - Providing cooking lessons in line with the new key stage 3 design and technology curriculum - Ensuring 2 hours of PE/sport a week available for all during the school day and encouraging 100% participation - Promoting provision and participation in a further 3 hours of sporting activities through extended services - Implementing the school active travel plan	- LA lead contact for schools through Children's Trust arrangements and direct contact with schools through school nurses - Work with Local Healthy Schools team to access support, possible partners and practical advice on achieving National Healthy School Status
Promoting healthier food choices			
Health trainers	<i>Health Inequalities: Progress and Next Steps</i>¹⁵⁶ - NICE behaviour change guidance¹⁵⁴	If a client identifies healthy eating/physical activity as one of their goals: - helping them reflect on their current behaviour and how they might change it for the better - helping them to understand the link between obesity and health-related problems - helping them to set realistic goals for change, helping to monitor these and keep client motivated - increasing client confidence in being able to sustain lifestyle change - signposting the client to appropriate services	- PCT health trainer coordinator - Health trainers are accessible within their communities/groups and people can self-refer or be referred by others

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Dietitians	- NICE obesity guidance⁶ - Dietitians are responsible for assessing, diagnosing and treating diet and nutrition problems at an individual and wider public health level	- Provision of community-based weight management services - Ensuring consistent advice on healthy eating and physical activity is available - Involvement in research into which interventions are most effective in encouraging individuals and families to change their behaviour - Provision of training for other health workers on motivational interviewing and behaviour change - Provision of personalised health advice and lifestyle management programmes	Dietetics department manager
Building physical activity into our lives			
Midwives	CHPP¹⁵¹	Encouraging regular physical activity, at an appropriate level, during pregnancy and as part of the antenatal care programme	Primary care trust (PCT) Early Years Lead
Health visitors	CHPP¹⁵¹	- Encouraging new mums to be active and suggest ways they could do this - Encouraging regular activity for all the family - Signposting to approved service providers, eg leisure services, commercial weight management organisations, primary care weight management clinics, health walk leaders	PCT Early Years Lead
School nurses	CHPP¹⁵¹	- Opportunistic advice on regular physical activity - Signposting to programmes in place within school, extended school services and community-based programmes - Collection of height and weight data for the NCMP	PCT Early Years Lead
Early years workers (eg nursery nurses, play workers, family support workers)	- Early years providers governed by statutory duties, regulation and inspection by Ofsted, and requirement to deliver the EYFS¹⁰¹ - CHPP¹⁵¹	- Encouraging active play for all children as part of daily routine - Discussing activity with young children	- PCT Early Years Lead - Children and Young People's Strategic Partnership
Children's Centres (including Sure Start)	- CHPP¹⁵¹ - Sure Start Children's Centre guidance¹⁵²	- Provision of physical activity programmes for young families - Educational sessions for young families – for example, how to make healthy food choices, healthy cooking on a budget, ways to be active with young children - Active play facilities on site - Provision of safe and secure cycle storage facilities to encourage active transport to facilities - Signposting to other service providers	- PCT Early Years Lead - Children's Centre coordinators
Dietitians	NICE obesity guidance⁶	- Provision of community-based weight management services - Ensuring consistent advice on healthy eating and physical activity is available - Encouraging regular physical activity as part of consultations	Dietetics Department Manager
National Healthy Schools Programme	- CHPP¹⁵¹ - National Healthy Schools Status (NHSS)	- Working with schools to achieve physical activity and healthy eating core criteria - Encouraging schools to look at other ways to maximise physical activity opportunities for pupils and their families, especially for those schools who draw from communities with higher levels of overweight and obesity, identified from NCMP data	- A Local Healthy Schools team will be based in either the LA or PCT and will provide this function. Details of each Local Healthy Schools team is on www.healthyschools.gov.uk - School Sports Partnerships can be contacted through your Local Healthy Schools team or by contacting Youth Sport Trust
School travel advisers	NICE physical activity and environment guidance¹¹⁷	- Supporting the development of school travel plans - Encouraging schools to look at new ways to increase the number of pupils walking and cycling to school	Local authority

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Leisure providers	- NICE physical activity guidance¹²⁸ - National Quality Assurance Framework (NQAF) Exercise Referral Systems¹³¹	- Provision of facilities and appropriately trained staff to work with patients referred through the local exercise referral system - Provision of approved weight management information within facilities - Provision of weight management support for clients	Joint LA/PCT strategic partnerships
Youth workers	NICE physical activity guidance¹²⁸	Signposting young people to community-based physical activity programmes	Children and Young People's Strategic Partnerships
Occupational health	- NICE physical activity and workplace guidance¹⁵⁵ - NICE obesity guidance⁶	- Opportunistic physical activity advice for staff accessing occupational health services - Provision of drop-in weight management services for all staff	PCT Workforce Development Lead
Primary care teams (GPs, practice nurses, district nurses)	- NICE obesity guidance⁶ - NICE physical activity guidance¹²⁸	- Provision of opportunistic advice on physical activity and healthy weight - Assessment of height and weight of practice population - Signposting to physical activity opportunities and weight management services - Provision of weight management and physical activity clinics in practices	- Practice-based commissioning groups - PCT Lead Nurse
Pharmacists	- NICE obesity guidance⁶ <i>Choosing health through pharmacy</i> (2005)¹³⁶	- Provision of physical activity leaflets and information issued with prescriptions - Opportunistic advice on physical activity - Signposting to local physical activity opportunities	PCT Medicines Management / Pharmacy Lead
Planners	NICE physical activity and the built environment guidance¹¹⁷	- Promoting a healthy weight through their role in shaping how cities, towns and villages are developed and built - Considering the impact of all planning requests on levels of physical activity and access to healthy food choices	LA
Transport planners	NICE physical activity and the built environment guidance¹¹⁷	- Promoting a healthy weight - Developing and managing the impact of road, rail and air transport in the local area	LA
Local authority cycling and walking officers	Local Area Agreements (LAAs)	- Ensuring local opportunities for walking and cycling - Liaison with planners to ensure walking and cycling opportunities are considered	LA
Parks management	- NICE physical activity and the built environment guidance¹¹⁷ - Fair Play (DCSF): Encouraging children and families to engage in physical activity	- Role in the management, maintenance and development of open/green space facilitating and encouraging physical activity by the local and wider community - Working with other LA areas to facilitate walking and cycling routes in, and to, open/green spaces	LA
Health trainers	<i>Health Inequalities: Progress and Next Steps</i>¹⁵⁶ - NICE behaviour change guidance¹⁵⁴	- Attending training to be able to discuss physical activity and healthy weight appropriately with clients - Provision of physical activity advice to clients - Signposting clients to physical activity opportunities	- By working with the health trainer coordinators at PCT level - Health trainers are accessible within their communities/groups and people can self-refer or be referred by others
Healthwalk leaders	- Legacy Action Plan¹¹⁶ - CMO Report <i>At least five a week</i>¹¹³	Leading health walks for people of all ages across communities and ensuring links to local GP practices and Children's Centres	- Regional Walking the Way to Health (WHI) coordinators and volunteers - PCT
Commercial weight management organisations	NICE obesity guidance⁶	- Provision of weight management services in easily accessible community venues - Provision of appropriate physical activity advice as part of weight management support	- Health Improvement Programme (HImP) and public health - Nutrition and dietetics services

Actor	Rationale for involvement	Outline role in promoting healthy weight	How to engage them
Creating incentives for better health			
LA and PCT commissioners	Responsible for commissioning services	- Commissioning prevention, intervention and treatment services, and meeting workforce requirements - Commissioning training for staff who deliver services and staff who come in to contact with those at risk - Management of/influence on resources allocated locally for obesity and making prioritisation decisions - Supporting local flexibilities and rewards in funding flows	- LA - PCT
Occupational health	- NICE physical activity and workplace guidance¹⁵⁵ - NICE obesity guidance⁶	- Opportunistic physical activity advice for staff accessing occupational health services - Provision of drop-in weight management services for all staff	PCT Workforce Development Lead
Personalised advice and support			
GP	Quality and Outcomes Framework (QOF) (adults)^{134, 135}	- Considering how to make use of existing BMI register for adults - Raising issue of weight with adults/parents proactively - Revisiting issue in future if patient not ready to change - Delivery of brief interventions - Identification of and referral to local or in-house provision of weight management services and wider healthy living services or programmes - Providing pre-conception advice for women	- Engage in development and implementation of local care pathways - PCT/GP forums
Practice nurses	NICE obesity guidance⁶	- Raising issue of weight proactively - Referral to local or in-house provision of weight management services - Delivery of brief interventions	- Engage in development and implementation of local care pathways - PCT/GP forums
Dietitians	- NICE obesity guidance⁶ - Dietitians are responsible for assessing, diagnosing and treating diet and nutrition problems at an individual and wider public health level	- Referral to local or in-house provision of weight management services - Ensuring consistent advice on healthy eating and physical activity is available - Involvement in research into which interventions are most effective in encouraging individuals and families to change their behaviour - Provision of training for other health workers on motivational interviewing and behaviour change - Provision of personalised health advice and lifestyle management programmes	- Dietetics Department Manager - Engage in development and implementation of local care pathways - Direct commissioning/service level agreement (SLA)
Pharmacists	<i>Choosing health through pharmacy</i> (2005)¹³⁶	- Provision of healthy living advice - Referral to local weight management services - Delivery of weight management services or brief interventions where appropriate	- PCT Medicines Management / Pharmacy Lead - Engage in development and implementation of local care pathways
Partners delivering community-based weight management services, eg leisure services, voluntary and community sector groups, commercial sector, training/ programme providers	SLA with PCT or LA	- Reinforcing consistent national messages in terms of healthy eating and physical activity - Use of social marketing information to promote services and engage potential clients - Feeding back information/progress to referring clinicians (in line with data protection requirements) - Referral to/awareness-raising of wider suite of healthy living and preventative services available locally – for children and adults	SLA with PCT or LA



TOOL D7 What success looks like – changing behaviour

TOOL
D7

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool shows the behaviour change outcomes that the Department of Health highlighted in local obesity guidance.
Purpose:	To show what behaviour changes are required to achieve local goals.
Use:	Can be used for evaluation and monitoring purposes – as performance indicators.
Resource:	<i>Healthy Weight, Healthy Lives: Guidance for local areas.</i> ² www.dh.gov.uk

Children: Healthy growth and healthy weight	Promoting healthier food choices	Building physical activity into our lives	Creating incentives for better health	Personalised advice and support
As many mothers breastfeeding up to 6 months as possible, with families knowledgeable about healthy weaning and feeding of their young children All children growing up with a healthy weight by eating well, for example by eating at least 5 portions of fruit and vegetables a day All children growing up with a healthy weight by enjoying being active, for example by doing at least one hour of moderately intensive physical activity each day Parents have the knowledge and confidence to ensure that their children eat healthily and are active and fit All schools are Healthy Schools, and parents who need extra help are supported through Children's Centres, health services and their local community	More eligible families signing up to the Healthy Start scheme Less consumption of high fat, sugar, salt (HFSS) foods, especially by children More consumption of fruit and vegetables and more people eating 5 A DAY, especially children More healthy options in convenience stores, school canteens, vending machines, at supermarket tills and at non-food retailers	More people, more active, more often, particularly those individuals and families who are currently the most inactive Reduced car use, especially for trips under a mile in distance More outdoor play by children	More workplaces that promote healthy eating and activity, with the public sector acting as an exemplar, both through the location and design of the buildings on the government estate and through staff engagement programmes	Everyone able to access appropriate advice and information on healthy weight Increasing numbers of overweight and obese individuals able to access appropriate support and services Local staff/practitioners understanding their role and empowered to fulfil it



TOOL D8 Choosing interventions

TOOL D8

For:	All commissioners in local areas developing an obesity strategy
About:	This tool provides information on interventions, divided into the Department of Health's five core themes, as set out in <i>Healthy Weight, Healthy Lives</i> . ¹ It is based on evidence of effectiveness and cost-effectiveness adapted from the NICE guideline on obesity. ⁶ Interventions have been ranked according to the level of evidence of effectiveness as assigned by NICE.
Purpose:	To give local areas an understanding of what interventions are effective and cost-effective. However, local areas should not feel constrained to implement only interventions with evidence of effectiveness. It is important that areas try new interventions, provided they are evaluated and so add to the evidence base. See Tool D14 Monitoring and evaluation: a framework .
Use:	• Should be used as a guide to selecting interventions. • Can be used as a checklist of interventions.
Resource:	<i>Obesity: The prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk

Key to grading evidence

Levels of evidence for intervention studies	
Level of evidence	Type of evidence
1++	High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1+	Well conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1-	Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias*
2++	High quality systematic reviews of non-RCT, case-control, cohort, CBA or ITS studies High quality non-RCT, case-control, cohort, CBA or ITS studies with a very low risk of confounding, bias or chance and a high probability that the relation is causal
2+	Well conducted, non-RCT, case-control, cohort, CBA or ITS studies with a very low risk of confounding, bias or chance and a moderate probability that the relation is causal
2-	Non-RCT, case-control, cohort, CBA or ITS studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal
3	Non-analytic studies (eg case reports, case series)
4	Expert opinion, formal consensus

Notes:

* Studies with a level of evidence (-) should not be used as a basis for making recommendations.

RCT: Randomised controlled trial. CBA: Controlled before and after. ITS: Interrupted time series.

Source: National Institute for Health and Clinical Excellence (2006)⁶

Evidence tables

Children: healthy growth and healthy weight

[illegible]

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
SCHOOLS						
More healthy eating	Reduce consumption of carbonated drinks	Limited evidence that interventions were effective in reducing overweight and obesity (1++)	Three large-scale interventions aimed to modify school lunch provision: one significantly reduced children's total energy and fat intake; ¹⁶⁰ one reduced children's fat intake but not total energy intake in school lunch observations; ¹⁶¹ and the last showed no difference in fat intake. ¹⁶² One additional study within the fruit and vegetable intervention review showed that reducing relative prices of low-fat snacks was effective in promoting lower-fat snack purchases from vending machines in adolescents over one year. ¹⁶³	There is some evidence that school-based interventions can result in cost-effective health gains. Both interventions identified resulted in weight loss at acceptable costs. (Wang et al, 2003 ¹⁶⁵ (1+) ; Wang et al, 2004 ¹⁶⁶ (2+))		
	Increase fruit and (to a lesser extent) vegetable intake Improve school meals Promote water consumption	Effective in improving dietary intake (1+) Key point Schoolchildren with the lowest fruit and vegetable intakes at baseline may benefit more from the school-based interventions than their peers (2+)	Analysis of the UK National School Fruit Scheme (now known as the School Fruit and Vegetable Scheme or SFVS) showed that 4-6 year old children receiving school fruit had a significantly higher daily intake than controls (117g/day compared to 67g/day, respectively) but this difference was not maintained two years after the intervention when free fruit was no longer available. ¹⁶⁴			
More physical activity	Promotion of less sedentary behaviour (television watching)	May help children lose weight (no grade)	<i>Active play:</i> A 12-week, US-based intervention promoting active play supplementary to usual PE among 9 year olds showed significant improvements in the intervention children compared with the controls, particularly among girls. ¹⁶⁷ Another study reported that a small intervention over 14 months resulted in 5-7 year old children in the intervention group being more active in the playground than the control group children. ¹⁶⁸ <i>PE classes:</i> One study reported significant increases in moderate physical activity among female adolescents, particularly 'lifestyle' activity, at four-month follow-up, following the promotion of 60-minute PE classes five days a week and associated education classes. ¹⁶⁹ There is good corroborative evidence from the UK that 'safer routes to school' schemes can be effective. ¹⁷⁰ A series of studies found that, when both school travel plans and safer routes to school programmes were in place, there was a 3% increase in walking, a 4% reduction in single-occupancy car use and a 1.5% increase in car sharing. Bus and cycle use remained largely static. ¹⁷¹ Conversely, a series of selected case studies found an overall increase in cycle use and a decrease in car travel whereas the effects on walking and bus travel were variable. ¹⁷² Another scheme also found a considerable increase in walking and cycling to and from school three years after the intervention. ¹⁷³			
	Multi-component interventions	Effective while intervention in play (1+)				

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
More healthy schools	Multi-component addressing various aspects including school environment	Equivocal to prevent obesity (2+) Effective in improving physical activity and dietary behaviour during intervention. UK-based evidence is limited (1+)	One study reported that 7-11 year old children in schools adopting a whole-school approach were consuming significantly more vegetables at one-year follow-up. ¹⁷⁴ Another multicomponent intervention study reported that 5-7 year old children in the intervention group consumed significantly more vegetables and fruit (girls only). ¹⁶⁸ The two-year Planet Health programme among US 12 year olds – promoting physical activity, improved diet and reduction of sedentary behaviours (with a strong emphasis on reducing television-viewing) – resulted in a reduction in the prevalence of obesity in intervention girls (but not boys) compared with controls. ^{175, 176} A review of five UK school-based interventions concluded that all five interventions considered (fruit tuck shops, CD-ROM, art/play therapy, whole-school approach and a family-centred school-based activity) have the potential to be incorporated into a health-promoting school approach and could be more effective than stand-alone interventions. The authors highlighted the importance of actively engaging schools for the success of the intervention. ¹⁷⁷	There is some evidence that school-based interventions can result in cost-effective health gains. Both interventions identified resulted in weight loss at acceptable costs. (Wang et al, 2003 ¹⁶⁵ (1+) ; Wang et al, 2004 ¹⁶⁶ (2+))		

Key points

- There is a body of evidence to suggest that young people's views of barriers and facilitators to healthy eating indicated that effective interventions would (i) make healthy food choices accessible, convenient and cheap in schools, (ii) involve family and peers, and (iii) address personal barriers to healthy eating, such as preferences for fast food in terms of taste, and perceived lack of will-power. **(1++)**
- There is a body of evidence to suggest that young people's views on barriers and facilitators to physical activity suggest that interventions should (i) modify physical education lessons to suit their preferences, (ii) involve family and peers, and make physical activity a social activity, (iii) increase young people's confidence, knowledge and motivation relating to physical activity, and (iv) make physical activities more accessible, affordable and appealing to young people. **(1++)**
- There is limited UK evidence to indicate that in terms of engaging schools it is important to enlist the support of key school staff. **(2+)**

Promoting healthier food choices

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
RAISING AWARENESS						
More healthy eating	Educational promotional campaign	Unclear for weight management (1+) Evidence that campaign can increase awareness of healthy diet and subsequently improve dietary intake (2+)	Interventions can result in improvements in various dietary outcomes, including a decrease in fat consumption, an increase in fruit and vegetable intake, and a decrease in fried foods and snacking. For example: - The BBC's Fighting Fat, Fighting Fit campaign demonstrated statistically significant improvements in diet five months after the campaign in a random survey of people who registered for more information. Significant improvements were reported in fruit and vegetable intake, with a 13% increase in respondents eating the recommended 5 portions a day. There was also a 16% increase in participants eating fried food less than once a week. Significant improvements were also observed in consumption of fat spreads, consumption of lower-fat milk, removal of fat from meat, snacking and consumption of starch-based meals.^{178, 179} - One-year follow-up of the Department of Health's community-based 5 A DAY pilot projects demonstrated that the intervention had stemmed a fall in fruit and vegetable intake against the national trend. Overall the intervention had a positive effect on people with the lowest intakes. Those who ate fewer than 5 portions a day at baseline increased their intake by 1 portion over the course of the study. In contrast, those who ate 5 or more portions a day at baseline decreased intakes by about 1 portion per day.¹⁸⁰ - A review by the Food Safety Promotion Board in Ireland reported that social marketing interventions were strongly and equally effective at influencing behaviour, knowledge and psychosocial variables such as self-efficacy, attitudes and perceptions of the benefits of eating more healthily. Social marketing interventions appeared to be moderately effective at influencing stage of change in relation to diet, and to have a more limited effect on diet-related physiological outcomes such as blood pressure, Body Mass Index and cholesterol.¹⁸¹	–		
	Food promotion	Some evidence that it can have an effect on children's food preferences, purchase behaviour and consumption. The majority of food promotion focuses on foods high in fat, sugar and salt and therefore tends to have a negative effect. However, food promotion has the potential to influence children in a positive way (2+)		–		
	Public health media campaign	Limited evidence that it can have beneficial effect on weight management, particularly among individuals of higher social status (2+)		–		
Key points						
- Parents are important role models for children and young people in terms of behaviours associated with the maintenance of a healthy weight. (3) - Books, magazines and television programmes are an important source of information, and actively involving media providers may improve the effectiveness of interventions. (3) - A significant proportion of parents may not recognise that their child is overweight and may have a poor understanding of how to translate general advice into specific food choices. (3)						

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost–effectiveness		
BROADER COMMUNITY						
More healthy eating	Point-of-purchase schemes in shops, supermarkets, restaurants and cafés – supported by education, information and promotion	Effective in short term. Longer-term, multi-component interventions may show greater effects (2++)	Strategies to minimise barriers to healthy eating by improving availability and access: Studies that looked at the effect of the opening of a supermarket in a deprived, poor-retail-access community in Leeds found that participants who switched to the new store increased their consumption of fruit and vegetables by 0.23 portions per day. The findings suggest that fundamental issues around cost, availability and taste are key considerations for future interventions. Twenty-eight per cent of those who did not switch to the new store were concerned about the expense. This was backed up by qualitative work which found that, although the stores improved physical access, this did not fundamentally alter economic access. ^{182, 183}	There is some evidence that a diet and physical activity intervention incorporating interactive educational sessions is cost-effective when compared with a similar intervention using only mailshot advice for couples living together for the first time. (Dzator et al, 2004 ¹⁸⁴ (1+) , Roux et al, 2004 ¹⁸⁵ (1+))		
	Novel educational and promotional methods such as videos and computer games	May be effective in improving dietary intake (1++)				
Key points						
- Interventions may be ineffective unless fundamental issues are addressed, such as: individual confidence to change behaviour; cost and availability; pre-existing concerns such as poorer taste of healthier foods and confusion over mixed messages; and the perceived ‘irrelevance’ of healthier eating to young people. (3) - Auditing the needs of all local users can help engage all potential local partners and establish local ownership. (3)						

Building physical activity into our lives

[illegible]

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost–effectiveness		
COMMUNITY INTERVENTIONS LED BY HEALTHCARE PROFESSIONALS						
More physical activity	Support and advice on physical activity and diet (not alone)	Effective for weight management (1+)	–	–		
	Behavioural/ educational interventions	Moderately effective for walking and non-facility-based activities (1++)	–	–		
	Free access to leisure facilities	Limited evidence – increase in activity levels (1+)	–	–		
Key points - Interventions with a greater number of components are more likely to be effective. (1++) - Although the majority of studies included predominantly white, higher social status and reasonably motivated individuals, there is some evidence that interventions can also be effective among lower social groups and effectiveness does not vary by age or gender. (1+) - Tailoring physical activity advice to address potential barriers (such as lack of time, access to leisure facilities, need for social support and lack of self-belief) is key to the effectiveness of interventions. (1++) - The type of health professional who provides the advice is not critical as long as they have the appropriate training and experience, are enthusiastic and able to motivate, and are able to provide long-term support. (3) - There is some evidence that primary care staff may hold negative views on the ability of patients to change behaviours, and on their own ability to encourage change. (3) - There is a body of evidence from UK-based qualitative research that time, space, training, costs and concerns about damaging relationships with patients may be barriers to action by health professionals (GPs and pharmacists). (3) - There is some evidence from the UK that patients are likely to welcome the provision of advice despite concerns by health professionals about interference or damaging the relationship with patients. (3) - It remains unclear whether interventions are more effective when delivered by multidisciplinary teams. (N/A)						

Creating incentives for better health

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
More healthy eating	Information strategies such as labelling Increased provision of healthier food Reduction in cost of low-fat snacks	Effectiveness on weight outcomes is unclear (2++) Encourages consumption of a healthy diet (2++)	<i>Healthier food provision</i> – One systematic review concluded that worksite intervention studies targeting healthier food provision by information strategies such as labelling and/or changes in food availability or cost can encourage healthier eating. ¹⁹¹ <i>Incentives</i> – One study concluded that, when prices of low-fat snacks in 55 vending machines were reduced by 10%, 25% and 50%, the total number of items sold increased by 9%, 39% and 93%, respectively. ¹⁹²	–		
	Provision of water	No studies identified (N/A)	–	–		
	Behaviour modification programmes such as health screening with counselling/ education	Short-term weight loss. Weight loss may be regained post intervention (1+)	Evidence from 10 randomised controlled trials and one controlled non-randomised trial suggests that worksite behaviour modification programmes, such as a 'health check' followed by counselling, can result in short-term weight or body fat loss, although there was a tendency for weight regain after the intervention. ⁶	–		
	Behaviour modification programmes such as health screening followed by counselling and sometimes environmental changes	Improvements in nutrition while intervention in place (1+)	A systematic review found that worksite behaviour modification programmes can show a positive effect on dietary fat intake (up to 3% decrease in percentage of energy from fat). ¹⁹³ Programmes can also increase consumption of fruit and vegetables from 0.09 to 0.5 portions per day. Successful programmes included a wide range of educational interventions (such as a health check followed by counselling) sometimes accompanied by environmental changes. Information about long-term effects was limited. ⁶	–		
More physical activity	Use of educational sessions and informative materials	Inconclusive evidence on weight outcomes (N/A)	<i>Encouraging increased physical activity</i> – A systematic review concluded that the use of workplace-based educational sessions and informative materials had significant effects on levels of physical activity. ¹⁹³ Results from a systematic review support the implementation of worksite physical activity programmes. ¹⁹⁴ The overall conclusion of the review was that there was strong evidence for a positive effect of physical activity programmes on levels of physical activity.	Evidence suggests that physical activity counselling does not result in any cost-effective gains in health outcomes, and studies on the benefits in terms of lost productivity are equivocal. (Proper et al, 2004 ¹⁹⁵ (1+) , Aldana et al, 2005 ¹⁹⁶ (2-))		
	Active travel schemes	No studies identified (N/A)	<i>Active travel plans</i> (eg <i>Cycle to Work scheme</i>) There is evidence from a UK-based study ¹⁹⁷ and a Finnish-based study ¹⁹⁸ that workplace promotional strategies can increase the number of people travelling actively to work.	–		

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
More physical activity (continued)	Payroll incentive schemes (eg free gym membership)	Either only effective in the short term (during the period of the intervention) or ineffective for weight control (1+)	–	–		
	Using the stairs	No studies identified (N/A)	–	–		
	Behaviour modification programmes such as health screening with counselling/ education	Short-term weight loss. Weight loss may be regained post intervention (1+)	Evidence from 10 randomised controlled trials and one controlled non-randomised trial suggests that worksite behaviour modification programmes, such as a ‘health check’ followed by counselling can result in short-term weight or body fat loss although there was a tendency for weight regain after the intervention. ⁶	–		
	Behaviour modification programmes such as health screening followed by counselling and sometimes environmental changes	Improvements in physical activity while intervention in place (1+)	–	–		

Personalised support for overweight and obese individuals

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
NON-CLINICAL SETTINGS TARGETED AT ADULTS						
More healthy eating and physical activity	Multi-component commercial group programmes	Multi-component programme more effective than standard self-help programme. It remains unclear whether the branded commercial group programme for which there is evidence of effectiveness (WeightWatchers) is more or less effective than other branded commercial programmes (1++)	–	–		
	Computer/email/internet-based programmes accompanied by greater ongoing support – in person, by post or email	Programmes more effective with than without ongoing support (1+)	–	–		
	Peer-led programme and a group-based and individual-based weight loss programme in a religious-based setting, a home-based exercise programme (accompanied by regular group sessions) and a programme providing information through interactive television	May be effective in the management of obesity (1+)	–	–		
	Meal replacement products	No strong evidence (N/A)	–	–		
	Commercial and computer-based weight loss programmes in men	Unclear (N/A)	–	–		
Key points • There is limited evidence that interventions to manage obesity based in workplace settings can be effective, although weight loss may be small in the long term. (1-) • There is limited evidence on the effectiveness of interventions based in non-clinical settings to manage obesity in adults (particularly men). (N/A)						

Desired behaviour	Interventions	Evidence base			Intervention already in place	Select intervention
		Effectiveness	Evidence	Cost-effectiveness		
NON-CLINICAL SETTINGS TARGETED AT CHILDREN						
More healthy eating and physical activity	Home-based interventions accompanied by behaviour modification material and ongoing support	Effective but replicability on wider scale remains unclear (1+)	–	–		

Key points

- There is limited evidence that interventions provided by school staff can aid the management of obesity in children and young people, at least in the short term, but this may be less effective than a more intensive intervention delivered in a clinical setting. **(2-)**
- There is a paucity of evidence on the effectiveness of interventions to manage obesity in children based in non-clinical settings. The evidence that was identified was generally for children aged 8-11 years and at the extreme end of obesity. **(N/A)**
- There is no UK-based evidence available on the effectiveness of interventions to manage obesity in children and young people in non-clinical settings. **(N/A)**
- There is insufficient evidence to compare the effectiveness of interventions with or without family involvement in non-clinical settings. **(N/A)**
- No evidence was identified which considered the effectiveness of exercise referral programmes to manage overweight or obesity in children and young people. **(N/A)**
- Among both children and adults, interventions in non-clinical settings that are shown to be effective in terms of weight management, are likely to demonstrate significant improvements in participants' dietary intakes (most commonly fat and calorie intake) or physical activity levels. **(1+)**
- The impact of participant joining fees and participant costs on the long-term effectiveness in 'real life' commercial programmes remains unclear. **(N/A)**
- There is insufficient evidence to identify strategies in non-clinical settings that are associated with the long-term maintenance of weight and continuation of improved behaviours among overweight and obese adults and children. **(N/A)**
- It remains unclear whether the source of delivery (both the main intervention and ongoing support) has an influence on effectiveness. **(N/A)**
- There is insufficient evidence to assess the importance of the source of delivery (for example, health professional versus volunteer worker) on the effectiveness of programmes for children or adults. **(N/A)**
- None of the identified studies considered inter-agency or inter-professional partnerships. **(N/A)**



TOOL D9 Targeting behaviours

TOOL D9

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool details the key behavioural insights from the national social marketing research conducted by the Department of Health.
Purpose:	- To give local areas an understanding of how families with children aged 2-11 years and minority ethnic communities perceive health and weight and diet and physical activity (see below). - To give local areas a sense of the difficulties of achieving the desired behaviours.
Use:	Can be used to help inform the initial design of interventions which can then be tailored to take account of the local environment by testing the design with the target groups.
Resource:	<i>Insights into child obesity: A summary.</i> A draft of this report is available to PCTs and LAs through their Regional Public Health Group. A final report will be published in late 2008.

When structuring local obesity strategies, it is important to understand the behaviours of the target group so that interventions can be designed accordingly. At a national level, the Department of Health conducted qualitative research among families with children aged 2-11 years, including both general population families and families in black and minority ethnic (BME) communities (Pakistani, Bangladeshi and Black African [Ghanaian and Nigerian]), to gain an understanding of their diet and physical activity behaviours. Researchers observed families over a number of days to obtain knowledge of what families were 'actually' doing rather than what the families 'perceived' themselves or 'claimed' to be doing. Below are details of the key behavioural insights from this research.

Insights on health and weight

General population

Parents have an inaccurate picture of their own and their children's weight

While childhood obesity is acknowledged as a problem, parents often do not recognise that it is relevant to their own family. Only 11.5% of parents with obese and overweight children identified their children as being obese or overweight.

Parents disassociate their families from the issue of obesity

Parents often refuse to acknowledge that their children are overweight, even when told so by a health professional. This is a sensitive issue for parents as childhood obesity is often connected in parents' minds with cases of severe neglect and abuse. This is repeatedly reinforced by media stories of extreme obesity. Also, parents are alienated by academic and medical language: phrases like 'clinical' or 'morbid' obesity encourage many families in the priority clusters to disassociate themselves from the issue.

Parents are unaware of the risks associated with behaviours such as sedentary activity or constant snacking

Many parents seriously misperceive the risks associated with their diet and levels of physical activity. High-risk behaviours like eating a lot of convenience foods, high levels of snacking and sedentary behaviour are prevalent, yet perception of risk is low. 'At-risk' families are also largely unaware of their own risk behaviours, underestimating how much unhealthy food and convenience food they buy and overestimating the amount of activity their children do.

Awareness of health risks associated with being overweight or obese is limited

The relatively low importance attached to concerns about diet and activity could be partly explained by lack of awareness of the health risks associated with poor diet and inactivity. Data from Cancer Research UK show that only 38% of adults recognise that obesity is a risk factor for heart disease and just 6% are aware of the link to cancer. Awareness of the health risks for children is particularly low.

Parents believe their children are healthy if the children are happy

Many parents assume their children are 'healthy' as long as they seem happy and provided they have no obvious health problems. Many families in the priority clusters therefore see health as related to emotional and psychological wellbeing rather than physical wellbeing. Prioritising children's happiness in this way can lead parents to encourage 'unhealthy' activities such as snacking and excessive sedentary behaviour because it makes their children happy.

It can be hard to engage with the concept of 'healthy living'

Adopting a 'healthy lifestyle' is seen as hard work, stressful and unrealistic. It is also strongly linked to 'middle class' values and activities such as yoga classes, gym membership and buying organic food. Many families in the priority clusters see healthy living as the province of stay-at-home mums who can afford not to work and instead spend their time exercising and shopping for and cooking healthy meals. At the same time, they identify strongly with those commercial brands that seem to align themselves with their priorities and promise rewarding, positive experiences.

Black and minority ethnic (BME) families*Parents' attitude towards health is reactive and tends to be more rational and physical than emotional*

Parents took a reactive approach to their child's health, seeing it as an absence of illness. They defined health as the child's ability to function in terms of their overall priorities, especially around education and faith, such as doing homework, going to school and observing religious obligations.

Childhood obesity is not an overt issue

The media gave younger parents some low-level awareness of childhood obesity being a government concern. However, older parents tended to be less engaged with the media and thus were less aware. Parents were unlikely to personalise the issue, even if they were aware of it. This was because they were unaware of the long-term health risks or the risks attached to poor diet and low activity levels, and they misjudged the weight of their children, either assuming that it was puppy fat or that their child was an appropriate weight. Importantly, it was possible to talk to parents directly about obesity. Direct and rational messages that deal with obesity and health were very motivating to minority ethnic parents, and obesity did not carry the same emotive connotations that it did for mainstream parents.

'Big is beautiful' is a powerful cultural influence

Many parents were more concerned about their children being underweight rather than overweight and often cited family pressures to have 'chubby' children. There was a sense that being 'big' was considered to be more appealing and desirable and a sign of health and wealth.

Insights on family diet

General population

Parents have surrendered food choices to their children

In many of the families in the priority clusters, parents placed great value on giving choice to children, particularly over food. Given the choice, children will more often than not opt for unhealthy foods which can lead to problem behaviour such as hyperactivity, lethargy or tantrums.

Snacking is a way of life for many families in the priority clusters

Families in the priority clusters use snacks in a number of complex ways: for example, as rewards for good behaviour, as 'fillers' during periods of boredom, or to appease conflict. Parents are often unaware of how much snacking they are doing themselves and how much their children are doing. They have a false picture of what kinds of snacks their children are consuming, and they have a misplaced sense of 'control' – they say they only allow snacks when their children ask but in reality they never say 'no'.

Parents focus on 'filling up' their children

Parents are more likely to be concerned about not giving their children enough food than about giving them too much. In young children there are concerns over a failure to grow and develop rapidly. By school age, parents are often concerned that their children have enough energy for the multitude of activities that they have to do. In older children there is a perceived risk of eating disorders such as anorexia nervosa or bulimia nervosa, despite the absence of evidence that parental behaviour can affect the risk of developing these conditions. Parents' shopping choices are therefore focused on buying the foods they know their children will eat.

Parents lack knowledge, skills and confidence in the kitchen

While parents will often cite 'time and convenience' or their own 'laziness' as the reasons why they don't cook from scratch, in reality the main barriers to cooking meals are lack of knowledge, skills and confidence. Anecdotally, mothers talked about experiencing feelings of rejection in the past when children had refused meals that they had prepared. Many therefore stick to a limited repertoire of 'tried and tested' meals which has the effect of making their children more fussy about food.

Black and minority ethnic (BME) families

Food is a critical part of community life

Food plays an important role and there is considerable emotion invested in cooking, sharing and consumption of 'good' food. For women it fulfilled a number of functions – demonstrating love for their family (by taking time and effort to cook 'proper' family meals); a sign of status – being able to provide food in abundance to families and friends; and a sign of good upbringing – for women in traditional families, being able to cook ethnic meals from scratch demonstrated they had been well brought up by their mothers.

Cooking from scratch is widespread and knowledge and skills are high

Cooking traditional foods from scratch with fresh ingredients was widespread and occurred on a daily basis, so parents believed that their diets were healthy. Traditional cooking methods were observed and cooking practices had been passed on from mother to daughter. However, unhealthy elements, particularly in the use of cooking oils and ghee (clarified butter), were found to be commonplace. While some mothers believed they had cut down on the use of cooking oils, others felt they could not because of family members' preferences.

Family diets are well planned and organised but there is an emphasis on abundance

The cultural significance of food and the prevalence of more authoritarian parenting styles meant that family meals were well planned and organised. However, it was clear that even within this there were unhealthy practices, such as large portion sizes at mealtimes because of the value placed on the provision of abundant food, frequent meals (sometimes twice in an evening) and children being encouraged to clear their plates.

Consumption of unhealthy 'Western foods' is unregulated by parents

Children were being allowed to consume large quantities of Western convenience foods in addition to their traditional family meals. Parents acknowledged that Western foods could be unhealthy but because children were also eating traditional foods which maintained their cultural values, parents believed that overall their children's diet was acceptable.

Insights on physical activity

General population

Parents believe their children are already sufficiently active

Many parents believe their children are getting enough exercise during the school day to justify sedentary behaviour at home. In most cases, researchers believed that parents were confusing high energy levels with high levels of activity.

Children are allowed and encouraged to be sedentary

High levels of sedentary behaviour were observed among children in families in the priority clusters. It was apparent that currently parents tend to encourage this, both as a way of controlling children and stopping them from behaving boisterously, and as a way of bonding with them by getting them to join in the sedentary activities they themselves prefer.

Sedentary behaviour is a status symbol

Sedentary behaviour is often linked to expensive and aspirational entertainment products such as games consoles and televisions. This is partly why a sedentary lifestyle is seen as a status symbol – as something the family has earned, and as compensation for working hard the rest of the time. Having paid for expensive toys such as PlayStations, parents will also put pressure on children to get 'value for money' by using them regularly.

Playing outside is perceived to be too dangerous

Parents were often reluctant to let their children play outside, whether or not they were accompanied by an adult, because of concerns about safety and the nature of the local environment. They also wanted to keep their own children away from older children, who might be a negative influence.

Car use is habitual and regarded as a status symbol

Families in the priority clusters see cars as status symbols and a means of exercising power and control over their own lives. Thus many are using them for short, walkable journeys, for example to school or the local shops. Many parents reported that their children strongly resisted the idea of walking to school and cited the simplicity, speed and convenience of the car. However, it seems likely that their own reluctance to walk is a major reason for their car-dependency, and a powerful influence on their children's attitudes and behaviour.

Black and minority ethnic (BME) families

Children want to be more physically active

Parents believe that enough physical activity is being done in school and that the children are therefore already sufficiently active. However, children themselves want to be more active to relieve boredom.

Physical activity is not a key part of any of the three cultures (Pakistani, Bangladeshi, and Black African [Nigerian and Ghanaian])

Physical activity was not a cultural norm in any of the three cultures, particularly taking part in organised activity. The parents' priority for their children was the children's education, and in Muslim families this included religious instruction after school. The focus outside school hours was therefore homework, extra tuition and attendance at Mosque schools. In addition, mothers were expected to care for their family and extended families, and so it was hard to justify time away from home being physically active.

Key barriers cited are 'tiredness', 'time', 'weather' and 'safety'

Low activity levels were observed across mothers. Health reasons were not a reason for being physically active and there is a belief, especially among older Black African women, that 'big is beautiful'. For other mothers, tiredness and time associated with work and family pressures were often cited. The UK weather made walking less attractive and not a practical option. Safety was a key issue for children being physically active.

Some differences among younger, less traditional fathers

Younger fathers, particularly those born and brought up in the UK, are more likely to be involved in playing sports at the weekend, particularly cricket and football. These were activities that they often involved their male children in, but female children were often not perceived to be their responsibility.



TOOL D10 Communicating with target groups – key messages

TOOL D10

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool provides the key messages for communicating to mainstream and minority ethnic families about diet and physical activity. It also provides details on the National Marketing Plan.
Purpose:	To give local areas an understanding of how they can reach the priority cluster groups (1, 2 and 3) using key messages derived from national qualitative research.
Use:	- The key messages should be used to reach appropriate cluster groups. - Details of the National Marketing Plan can help local areas synchronise their marketing strategy with national policy.
Resource:	<i>Insights into child obesity: A summary.</i> A draft of this report is available to PCTs and LAs through their Regional Public Health Group. A final report will be published in late 2008.

Communicating to families

The findings of the national qualitative research commissioned by the Department of Health (see page 59 and [Tool D9](#)) suggest that parents overall need to be more engaged with the child obesity issue in order to take proactive steps to prevent obesity in their children. To do this, it will be important to raise their awareness of what healthy behaviour is and the risks and benefits associated with it, through targeted interventions. To engage families with messages about diet and physical activity, it is essential that the national research findings are taken into account. For example, the qualitative research found that effective communications should focus on either diet or physical activity, but not both:

- When messages are combined, diet messages dominate and the activity component is ignored, regardless of the order in which messages are presented.
- Parents are likely to acknowledge the need for dietary change but are not likely to recognise the need for a change in activity levels. This is because for diet, parents' awareness of the problem is high so they are already actively engaged in risk behaviours. However, for physical activity, parents tend to believe their children are already active enough and they are less inclined to see their children's activity levels as their responsibility than they are with their children's diet.
- In addition, some parents find it difficult to make the link between diet and activity, and will reject communications that try to make that connection clear.
- Combining diet and physical activity in communications can also perpetuate unhealthy diets as parents believe that as long as children are active, it does not matter what they eat.

The research concluded that, to be sufficiently motivating, diet and activity messages need to occupy very different emotional territories:

- Messages on diet that outweigh the negative, short-term consequences of introducing healthy diets (eg resistance from fussy children) by 'shocking' parents with the long-term negative consequences of failing to change behaviour can be very motivating, but careful testing with representative focus groups is needed on the exact wording before such messages are used.

- Successful messages about activity focus on 'disarming' parents by showing the positive benefits (non-health-related) of being active with children, such as creating treasured family memories.

In addition to communication which motivates families to address their children's diet and activity levels, the research recommended that:

- Parents would require specific, supportive messages that empower them to make changes.
- Messages will need to feel relevant and actionable and should be easily adaptable to normal family life, and presented in a down-to-earth way.
- The language used when communicating to families needs to be clear, simple and non-judgemental, and the tone of voice needs to be empathetic and positive. This will help secure participation from the target audience. Further details about what works (language and imagery) are provided below.

What works for the priority clusters – Language

- Language should be empathetic. Use 'we' and 'us', rather than 'you'.
- Don't tell parents what to do. This alienates and 'de-skills' them.
- Use 'could happen' rather than 'will happen' when talking about negative consequences. Parents need to feel that there is hope.
- Use the kind of colloquial phrases that parents use themselves, like 'bags of energy'.
- Acknowledge their concerns and reflect them back, by using phrases like 'It's hard to say no to your kids' and 'You don't have to turn into a health fanatic to do something about it.'
- Don't be judgmental. Avoid talking about the 'right' foods or 'good' and 'bad' energy.
- Direct references to 'obesity' and 'weight' alienate parents and may mean they fail to recognise themselves as part of the audience for a campaign or intervention.
- If you must talk about weight, use clear, simple language. Explain jargon and define terms like 'overweight' and 'obese'.
- Focusing on future dangers, which most parents are willing to acknowledge, will reduce the risk of parents 'opting out' of a communication because they don't believe their children are currently overweight or inactive.

What works for the priority clusters – Imagery

- Images of happy, healthy children draw parents in and encourage them to identify with a shared goal.
- Images of adults make parents more likely to think "They're not like me, so this doesn't apply." Images of children are likely to appeal to adults, regardless of their background.
- However, images of very overweight or obese children also encourage de-selection since the majority of parents with overweight and obese children may be unaware of or sensitive about their children's weight status.
- Settings should be familiar and everyday, for example local parks, gardens or the kitchen.
- Avoid anything too aspirational or 'middle-class' – for example, toys, environments or clothes.
- Focus on images of children playing as opposed to taking part in specific sports or types of exercise, as sports and exercise may lead parents to turn off.
- For the same reason, avoid images of children eating specific foods.
- Imagery should reflect the fact that families, particularly those in the 'at-risk' clusters, often don't fit the stereotype of two parents and 2.4 children.

Cluster-specific messages

Research has established that motivating propositions (re-framing diet in terms of negative long-term consequences, and activity in terms of positive family experiences) worked to stimulate a desire to change behaviour across all of the at-risk cluster groups. However, when creating targeted messages it may be necessary to create a mix of tailored messages.

Tool D8 and the overview of research given on pages 139–140 provide insight into how families think and feel about issues and are a useful starting point for message development, as will any locally commissioned research. The following table suggests key issues that should be considered when developing messages to target one of the priority clusters.

Cluster	Mindset	Messaging considerations
1	Cluster 1 families are fatalistic about their ability to make changes and believe the barriers to doing anything are too substantial. They are particularly sensitive to judgement of their parenting skills.	Emphasise how the barriers – time, cost and convenience – can be overcome. Demonstrate that change is achievable – possibly by showing that others like them are achieving it. Avoid any implicit judgement of parenting skills.
2	Cluster 2 parents have low levels of understanding of the issues but are keen to be 'good parents'.	Encourage personalisation by talking about the kinds of issues they are struggling with, such as child fussiness. Messages should aim to increase their awareness of diet- and activity-related issues but will need to focus on 'skills' for implementing solutions as well as the solution, eg how to encourage fruit and vegetable consumption, and not just why it is important. As this cluster tends to be in a lower socioeconomic group, solutions should be low-cost.
3	Cluster 3 parents believe they know a lot about diet and physical activity and believe their family are already healthy.	As parents in this cluster are least likely to recognise the issue as belonging to them, messaging will need to personalise the issue by demonstrating likely gaps between perceived and actual behaviour. There will be less need to overtly tackle barriers such as 'time' and 'cost'.

Communicating to black and minority ethnic (BME) families

Research with BME communities shows that **direct messages regarding health, childhood obesity and associated health risks were most successful**. As with mainstream communities, messages about diet tended to have more impact than messages about physical activity, and communications will have to work hard to encourage take-up of messages about physical activity.

Hard-hitting messages relating to diet resonate

As with the general population, effective diet messages were often those that raised parents' awareness of the long-term, negative consequences of indulgent food practices.

Rational messaging relating physical activity to education is more successful than emotional messages

The positive emotional messages that connected physical activity with happy family memories were seen as too 'soft' and emotional. This reflects the insight that parents in these communities do not connect health with happiness in the same way that mainstream communities do, and also reflects the absence of physical activity traditions in their cultural life. Messages that motivated parents most were those that linked educational attainment and physical activity under the heading of 'energy for learning'. This fitted parents' own priorities and was easy to understand.

Other considerations based on research findings

- It is possible to talk directly to these communities about the dangers of childhood obesity. The issue is not as emotive in these communities and deselection is less likely.
- Extended family will be an important additional target audience, to ensure that grandparents do not undermine mothers' attempts to improve children's diets.
- For mothers with low English language levels, children are important conduits for information.
- These communities are more comfortable with face-to-face communication through community workers than with communication using telephone, internet services or leaflets.
- Engaging community leaders and workers is likely to be important, particularly to create 'cultural licence' for increased activity levels.

The National Marketing Plan – social marketing at a national level

The Government has committed £75 million to a three-year marketing programme to combat obesity. This programme will be amplified by partnership work with commercial organisations and non-governmental organisations. This programme is driven by a substantial body of research. **Local authorities and PCTs can access a draft report that describes this research via the obesity lead in their Regional Public Health Group, or by emailing healthyweight@dh.gsi.gov.uk.** A final version of the report will be published in late 2008, informed by continuing research. In the meantime, the Cross-Government Obesity Unit welcomes feedback on the draft report.

The aim of this programme is to use marketing as a catalyst for a societal shift in lifestyles in England, resulting in fundamental changes to those behaviours that lead to people becoming overweight and obese. The programme will not tell people what to do; rather it will seek to recruit people to a lifestyle movement, which they can join and in which everyone can play their part.

The programme will:

- create a new 'movement' called Change4Life, which will speak to and for the public on this issue; the new movement will be the author of all public-facing marketing and communications
- direct people to a suite of targeted products and services (including those developed/delivered locally)
- build a coalition of partners (across Government, local service providers, commercial and third sector), all working together under a common banner
- create targeted campaigns which use a mix of very simple universal messages and tailored messages which take account of people's individual needs and circumstances.

The programme will explain the long-term health consequences of poor diet and activity levels and will raise this as an issue that is relevant to the whole of society.

Specific targeted campaigns will be developed for the following groups:

- pregnant women
- parents of children aged 0-2
- at-risk families
- those minority ethnic groups that the Health Survey for England and Department of Health research shows to be most at risk.

The campaign will initially focus on clusters 1, 2 and 3 (see [Tool D4](#) and page 59) as the highest priority since research indicated that these families had the highest risk of their children developing obesity.

The campaign will seek to 're-frame' the issue of obesity so that families begin to personalise the issues of poor diet and low physical activity levels. The Department of Health will then schedule messages promoting diet and physical activity to fit into the natural calendar of family life. For example, messages about physical activity will be timed to coincide with school holidays.

In later years, specific activity will be developed for:

- young people
- at-risk adults
- stakeholders (such as the NHS workforce).

There will be a Change4Life website and helpline giving people access to tools, support, advice and information. In particular, there will be a tool that lets people search for local services and activities.

The Department of Health team will make detailed marketing plans available in advance of all activity and will provide a campaign toolkit to give local and regional teams everything they need to develop activity locally. It is recommended that, wherever possible, local organisations join up any marketing or communications activity that are run so that:

- local activity can benefit from the umbrella support provided by the national campaign, and
- people who are motivated by the national activity can easily find locally-delivered products and services.

In addition, the Department of Health recommends that local areas do the following.

- Design interventions or services that support the national movement: eg opportunities for children to get their hour a day of physical activity, or opportunities for families to trial different ways of achieving 5 A DAY.
- Ensure details of all services (such as breastfeeding cafés, walking buses, or cookery classes) are included within the searchable tool.
- Synchronise any behavioural guidance with that provided by the Department of Health campaign (so that people are not given conflicting advice).
- Explore ways in which they can recruit local partners, whether from the commercial or voluntary sector, to the movement.
- When appropriate, use the brand name for new communications.
- When appropriate, use the central helpline and website as the call-to-action in communications.



TOOL D11 Guide to the procurement process

TOOL
D11

For:	Commissioners in primary care trusts (PCTs)
About:	This tool provides details regarding the correct procedure to follow when procuring services. It is not a complete and comprehensive procurement guide. However, it has been developed to assist PCT commissioners to better understand the tender process for procuring services that will help to tackle obesity. This tool assumes the decision has already been made by the PCT to procure services. PCTs are strongly advised to seek their own legal advice when using this procurement guidance; this guidance should not be taken in any way as constituting, or as a substitute for, legal advice.
Purpose:	To provide local areas with a high-level summary of key factors for PCTs to consider when commissioning services.
Use:	To be used when procuring services in conjunction with the <i>PCT procurement guide for health services</i> . ¹⁹⁹
Resource:	<i>PCT procurement guide for health services</i> . ¹⁹⁹ www.dh.gov.uk

1. Commissioning obesity services

This tool is designed to support the overall commissioning of interventions to tackle obesity and promote healthy weight, using the five simple steps set out in *Healthy Weight, Healthy Lives: Guidance for local areas*² as a framework. Once local authorities, PCTs and their partners are clear on the intervention they need to commission to meet their locally set goals, the next step is to procure those interventions.

This tool provides a high-level summary of key factors for PCTs to consider when procuring services.

2. Is a formal procurement required?

This paper must be read in conjunction with the *PCT procurement guide for health services*¹⁹⁹ document which sets out guidance to assist PCTs in:

- i) deciding whether to procure; and
- ii) how to procure health care services through formal tendering and market testing.

There is no general policy requirement for the NHS to be subject to formal procurement process. It remains with the PCT as a Commissioner to decide whether they want to formally tender or not after carefully considering their internal governance, legal advice and advice in the *PCT procurement guide for health services*.¹⁹⁹

However, the use of independent and third sector Providers to provide NHS-funded services is becoming more and more widespread and PCT Commissioners would be expected to select and use Providers who are best placed to deliver cost-effective and high-quality services.

If PCTs do decide to procure the required services, the general procurement thresholds can assist PCTs in making a decision as to which procurement route to follow.

3. EU Procurement Requirements and Regulations

Contract Value Thresholds and Tender Process

Public Sector procurement is governed by UK regulations that implement EU procurement directives; these apply specifically to any procurement with a total value over a specified threshold.

Where contract value is above the EU public procurement threshold, it is important to review whether the service falls within 'Part A' or 'Part B' of the procurement regulations. Contracts for health and social care services and some training services, including weight management training programme services (CAT24), are defined by procurement regulations as 'Part B' service contracts. Under the regulations, only certain procurement obligations apply to the award of Part B contracts. In particular, if a contract is for purely 'Part B' public services then an OJEU (Official Journal of the European Union) notice publication is not automatically required. For example, it is possible to advertise in local or national newspapers or trade journals rather than OJEU in some circumstances. In contrast, those contracts which are designated 'Part A' service contracts are subject to the full extent of the requirements of the procurement regulations.

The following table sets out basic rules for Part B services and is for information only.

Threshold for value of contract	Guidance Tender Process
Contract values up to £139,893	All tender processes must be fair, open and transparent. Bids should normally be obtained in writing depending on the value and type of service. PCT Commissioners are advised to liaise with their legal advisers to ensure they meet the necessary requirements. However, a PCT would normally issue tenders (with detailed service specifications) to a minimum of three interested Bidders, and following evaluation against predefined criteria the Bidder offering the best service and the right price would be awarded a contract.
Contract values at or above £139,893	EU public procurement threshold, which requires services to be advertised and tendered. A PCT would normally advertise the procurement for services more widely. PCTs should consider publishing an OJEU (Official Journal of the European Union) notice and in addition place advertisements in national newspapers or trade journals as appropriate.

Note: If the contract is one of a series of contracts for similar services then the aggregate value of all the contracts must be used in relation to the financial thresholds. Thresholds should be checked on the EU website as they may be revised. Go to www.tendersdirect.com

The Department of Health's Procurement Centre of Expertise has set out the following different procedures for the procurement of Part A management services (only) which sets out the tender processes required. PCTs may choose to use this as a general guide when procuring weight management training services.

Up to £4,000	One quote
£4,000 to £10,000	Three written quotes
£10,000 to £90,319 (up to EU threshold)	Three or more formal tenders
£90,319+ (over EU Part A threshold)	EU public procurement limit applies

4. Procurement Route – Four Options

Once the PCT Commissioner has established what thresholds the services to be tendered fall into, they can decide which procurement option is most suitable to meet its needs. A number of considerations including the size and scope of the services, the service specification, the target market, and key stakeholders will drive this decision.

There are four main options available to PCTs for procurements that exceed the EU threshold:

i) Open Tender (all interested Bidders invited to tender)

All interested Providers (Bidders) who respond to an OJEU notice/advertisement must be invited to tender. This procedure does not allow for prequalification or selection prior to final contract award stage.

ii) Restrictive Tender (entails limited dialogue with Bidders)

Interested Bidders are invited to respond to an OJEU notice/advertisement by submitting a prequalification questionnaire (PQQ) in which they reply against defined criteria relating to their organisation's capability and financial standing. Following receipt and evaluation, a shortlist of Bidders are invited to tender. The PCT Commissioner can carry out some limited discussion and dialogue with Bidders prior to selecting the successful Bidder. The discussion can, for example, enable the Commissioner to clarify minor details about the bid, but does not allow for substantial negotiations around the service requirements and pricing.

The initial PQQ selection process allows PCT Commissioners to restrict the number of Bidders invited to tender to a more manageable number, allowing the Commissioner to focus more on the quality of bids and to make the assessment process more cost-effective.

iii) Competitive Dialogue (appropriate for more complex procurements and entails dialogue with Bidders)

The competitive dialogue procedure is a more flexible procedure than the Restrictive Tender procedure, and enables the PCT Commissioner and Bidders to discuss aspects of the contract and services prior to concluding and agreeing these. The Commissioner can utilise this process, for example, to help refine the service requirements further in discussions/negotiations with Bidders. On conclusion of this stage the Commissioner will issue a final Invitation to Tender (ITT), to which Bidders must respond with a final tender. There is opportunity for the Commissioner to ask Bidders to tweak or fine tune their bids further. The preferred Bidder(s) can then be selected.

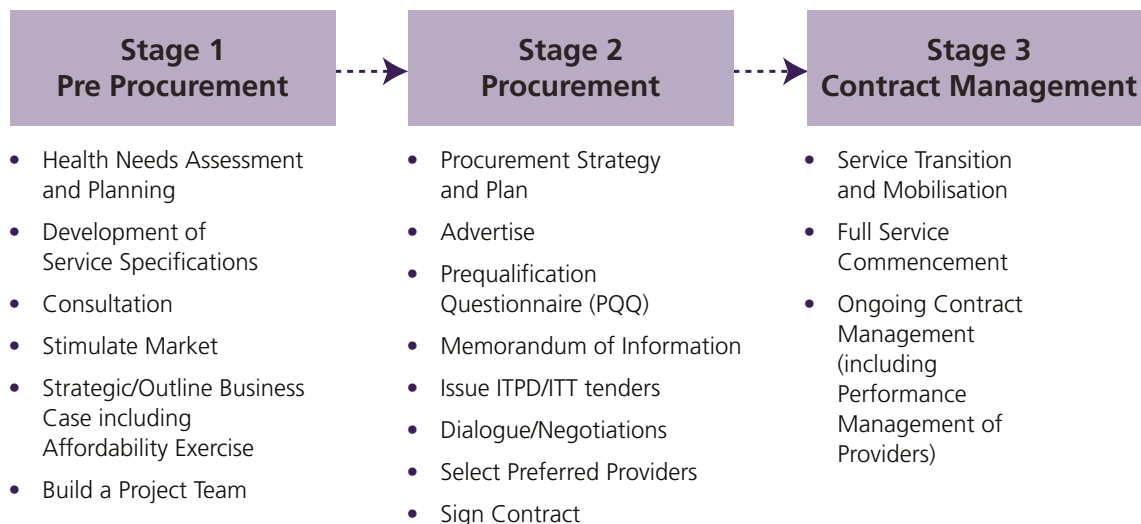
iv) Competitive Negotiated Procedure with a Single Provider (should only be used in very exceptional circumstances)

This procedure is limited to specific circumstances and should only be used when other procedures will not work, competition is not viable or appropriate, work is needed for research or development purposes, or where prior overall pricing is not possible.

In all of the options outlined above, the PCT Commissioner must ensure that an evaluation plan is in place and that the evaluation against which Bidders will be assessed are clearly set out.

5. Three Key Stages of Procurement

For any procurement route, and in line with the Office of Government Commerce (OGC) guidance, the process can be broken into three key stages:



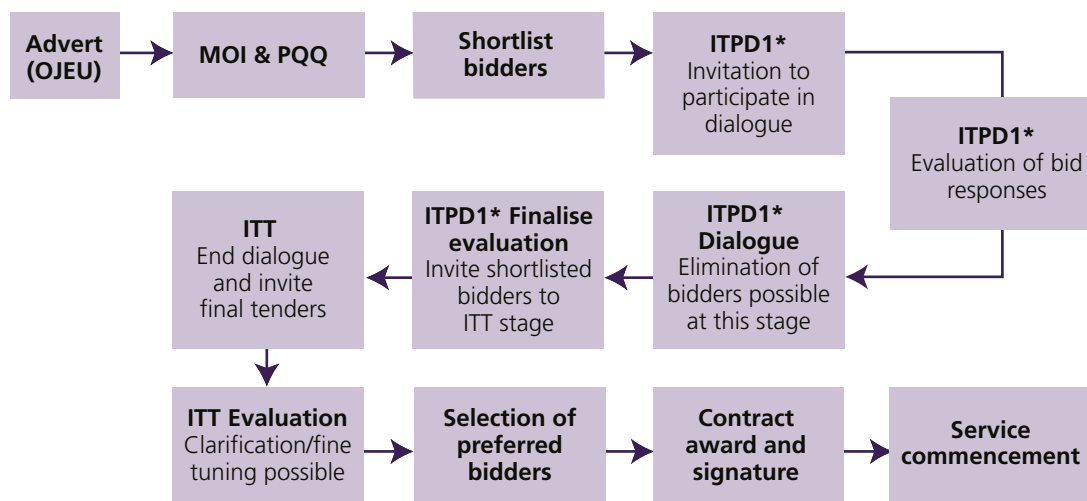
A Typical Procurement Process that PCTs may consider

Detailed guidance and tools that expand on the information in this guide are currently being developed and will be available in late 2008. This will:

- provide a foundation for PCTs to build a comprehensive procurement plan
- provide a step-by-step guide to manage a procurement.

The following illustration sets out a high-level procurement process where dialogue is required with Bidders. The Invitation to Participate in Dialogue stage (ITPD) has been marked as optional. Whether or not the Dialogue route is pursued depends on the PCT's individual requirements.

Typical procurement process



*Further stages of dialogue are possible, eg ITPD1, ITPD2. However, these should be planned for at the outset.

Procurement Timelines

The time required to undertake a procurement can vary greatly depending on the size and complexity of the product(s) or service(s) being procured (from a few days or weeks to 12 months for larger scale procurements). Procurements may vary in size and duration – for example a PCT Commissioner may decide to tender on an individual user-by-user basis or undertake a procurement to cover all service users over the next four to five years. Some PCTs may choose to procure collaboratively and maximise the opportunity to benefit from economies of scale, which may also have an impact on the timescale.

Competition Challenge

The *PCT procurement guide for health services*¹⁹⁹ should be read in conjunction with the 'Principles and Rules for Cooperation and Competition', published as Annex D of the 2008/9 Operating Framework,¹³⁸ and the *Framework for Managing Choice, Cooperation and Competition*.²⁰⁰

It is important to note that a Department of Health Cooperation and Competition Panel is being established in October 2008, which will need to be satisfied that PCTs have consulted and complied with the *PCT procurement guide for health services*¹⁹⁹ as a basis for the decisions they have made. More information about the Cooperation and Competition Panel is available in the *Framework for Managing Choice, Cooperation and Competition*.²⁰⁰

Further Guidance

The Cross-Government Obesity Unit has commissioned the development of a set of tools to support PCTs and local authorities in the specific area of commissioning weight management services. The toolkit will be available in late 2008 and will provide practical support to local areas, including in the procurement of weight management services.

More detailed advice and template documents relating to procurement are currently available via the Equitable Access to Primary Care web-based toolkit which many PCTs are already familiar with. Go to www.dh.gov.uk



TOOL D12 Commissioning weight management services for children, young people and families

TOOL
D12

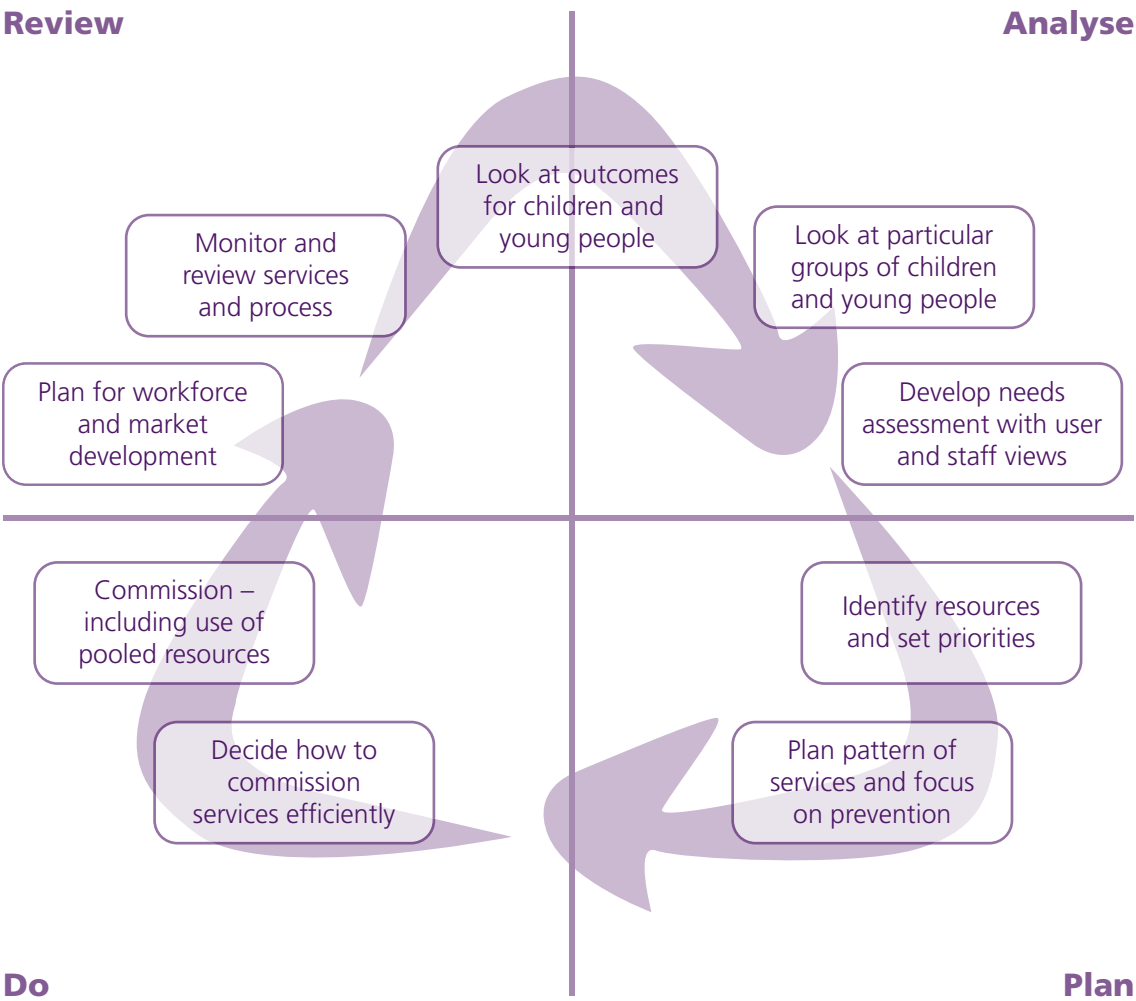
For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool offers a framework for commissioning weight management services for children, young people and families. The framework is a combination of the Joint Planning and Commissioning model, the Commissioning Framework for Health and Well-Being and a model offered by the Institute of Public Care used in the Commissioning eBook and further developed by the Care Services Improvement Partnership North West (CSIP NW). The framework reflects the principles of World Class Commissioning, focusing on how commissioners achieve the greatest health gains and reduction in inequalities, at best value, through 'commissioning for improved outcomes'. It also recognises that a) some children, young people and their families will be motivated to achieve a healthy weight and will require a minimum level of support and b) as indicated in <i>Healthy Weight, Healthy Lives</i> , ¹ commissioners in local areas will want to commission a range of interventions that prevent and manage excess weight, including weight management services.
Purpose:	To provide local areas with an understanding of the key steps to commissioning weight management services for children, young people and families. This is the first tool and overarching framework of a more comprehensive resource being developed to support commissioners specifically in the area of weight management.
Use:	• As a guide for commissioners in local authorities and PCTs to develop commissioning plans for weight management services • As a checklist of activities to be agreed, and to measure progress against, as part of the commissioning process and joint performance management systems • In working with partners and providers to develop both a shared language and commissioning model • To engage children, young people and families and providers in the process of service planning and design
Resource:	<i>PCT procurement guide for health services</i> . ¹⁹⁹ www.dh.gov.uk

The Joint Planning and Commissioning model outlines nine steps to commissioning services for children and young people (see diagram on next page). Each of these nine steps will involve a number of 'activities' that can be broadly divided into four sections, which also reflect the processes and competencies of World Class Commissioning:

- analysis
- planning
- doing, and
- reviewing.

The diagram below shows these nine planning and commissioning steps divided into the four sections. The table on the next page offers, through a series of questions, a guided journey through some of the key commissioning activities, including needs assessment, service specification, contract management, relationship with providers and workforce development. Some of these activities will be supported by more specific tools and templates with case studies and examples as best practice emerges and the body of evidence grows.

Steps involved in commissioning services for children and young people



4. Review

1. Are we achieving the intended outcomes for individual children, young people and families?
2. Is the monitoring of services and processes giving us the financial and activity data we require, including GP-based services?
3. Can we demonstrate value for money?
4. Are the commissioned services supported by relevant policies and guidance?
5. How does provider performance match up to our commissioning strategy?
6. Is a workforce training plan for weight management services being implemented?
7. Is the capacity of the provider market developing and are we confident that it is sustainable, dynamic and able to meet the diversity of demands?
8. Are we sharing and using all the relevant information collectively?
9. What changes, if any, do we therefore need to make to our process for joint planning and commissioning to ensure the best outcomes for children, young people and their families?

1. What is in our joint purchasing plan – including advertising, tendering process, selection process and contracting?
2. What needs to be in place for joint commissioning of weight management services to be carried out efficiently, for example, capability, leadership and accountability?
3. How do we manage joint commissioning of weight management services with pooled resources?
4. Having secured our range of weight management services, who will manage the contracts?
5. What is in place to quality assure services?
6. Who will manage relationships with providers and how will this be done?
7. Is our approach to contracting helping to build a dynamic and diverse market place and supply of effective services?

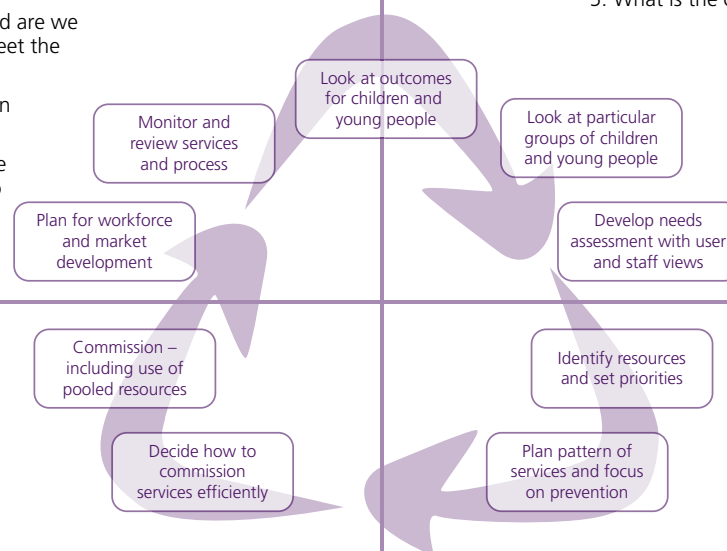
3. Do

1. Analyse

1. What are successful healthy weight outcomes for children, young people and their families?
2. How well do we know and understand the weight management needs and lifestyle interests of children, young people and their families?
3. What are our local, regional and national priorities in terms of reaching and caring for particular children, young people and their families?
4. What does the review of existing weight management services tell us, including GP-based services?
5. What is the current level of capacity and financial investment across our partners in these services?
6. What is our analysis of the current market place and providers of weight management services?
7. What is the legislative base and guidance to meeting the healthy weight management needs of our local and national population?
8. What is our analysis of the research and current evidence base for this work, including the views and experience of people delivering services?

1. How do we ensure we have children, young people and their families at the centre of joint planning and commissioning of weight management services?
2. What are the gaps in service provision across PCTs and local authorities, including GP-based services, that we need to plan for?
3. What levels of resources are available to address gaps in services and identified inequalities?
4. Who will be involved in our joint commissioning strategy planning exercise?
5. When will we complete our strategy, which could include working with GPs through practice-based commissioning?
6. What is the design of the services and the range of care pathways we are planning to put in place?
7. What do we need to include in our range of service specifications?
8. What needs to go into service level agreements and contracts to ensure high quality services delivered by high quality providers?

2. Plan





TOOL D13 Commissioning social marketing

TOOL D13

For:	Commissioners in primary care trusts (PCTs) and local authorities
About:	This tool provides details on how to commission a social marketing agency. It provides a checklist for assessing an agency and sample interview questions with answers which can be used when interviewing social marketers.
Purpose:	To provide local areas with information about the key issues relating to procuring a social marketing agency.
Use:	• Should be used in planning social marketing interventions. • Should be used in commissioning social marketing agencies. • Can be used as an assessment tool when interviewing agencies.
Resource:	National Social Marketing Centre (NSMC): www.nsms.org.uk

If commissioners decide to procure a social marketing agency to support their programme, then they should ensure that the correct procurement procedure is put in place when approaching social marketing agencies. (See **Tool D11 – Guide to the procurement process.**)

This tool provides an evaluation checklist for assessing social marketing agencies and some sample interview questions (with robust responses). These have been developed by the National Social Marketing Centre (NSMC) in order to assist local areas in the process of commissioning a social marketing agency.

Assessing social marketing agencies – a checklist

Essentially, a social marketing agency tendering for programme work should be able to demonstrate:

- a clear understanding of social marketing
- experience of social marketing, especially in the health sector
- a clear approach to a social marketing commission, based upon the National Benchmark Criteria²⁰¹
- sound company history
- adequate capacity – such as personnel and infrastructure
- capability of delivery
- financial competence.

To assess the suitability of an agency tendering for social marketing work more comprehensively, the following checklist can be used by commissioners.

Checklist for agency	Yes	No	Unsure	Action
Can the agency demonstrate a clear understanding of the project's objectives and broader strategic goals?				
Can the agency provide examples of clear strategic planning, monitoring and evaluation of past projects?				
Is the agency suggesting clear indicators to demonstrate return on your investment? These may include relevant measures to demonstrate influence on behaviour, awareness, attitudes, or other relevant process or interim measures such as evidence of stakeholder engagement.				
Can the agency demonstrate an ability to understand your research needs? Have they insisted that all secondary data be utilised before undertaking new market research at local level?				
Can the agency provide evidence of genuine stakeholder engagement, partnerships, and collaborative delivery?				
Is the agency proposing that local delivery staff be involved in the development and support of the programme?				
Has an adequate budget been allocated for each stage of the proposed social marketing intervention?				
Is there evidence that the agency can customise a solution to meet a specific challenge rather than simply repeating a similar approach they have used elsewhere?				
Can the agency demonstrate an ability to use research techniques to segment, target and design interventions that meet the needs of distinct target audiences?				
Has the agency offered promotional freebies, materials, or discounts before demonstrating a clear understanding of the strategic objectives and the specific needs of the target audience the project hopes to reach?				
Is the agency considering a multi-pronged approach that considers a mixture of interventions to enhance customer benefits or achieve policy and environmental objectives?				
Is the agency clear about the consequences of failing to deliver (for example, built-in penalty clauses)?				

Sample interview questions for interviewing social marketers

The National Social Marketing Centre has developed eight questions to assist commissioners when interviewing agencies bidding for social marketing projects. Examples of robust responses have also been given. The National Benchmark Criteria²⁰¹ can also be used to help guide the interview process. Go to the National Social Marketing Centre website at www.nsms.org.uk

Question	Answer
Explain to us what social marketing is and how it can help us at a local level.	In formal terms, social marketing has been defined as <i>'the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, for a social good'</i>.²⁰² This definition highlights the systematic nature of social marketing, while also emphasising its behavioural focus and its primary concern with a 'social good'. Social marketing has been used successfully in a variety of local interventions. [At this point a competent company should be able to talk about a social marketing case study, and discuss lessons learnt from the example. The case study may be international, as the British evidence base is still in its infancy.]
Social marketing is a staged and systematic process. Please take me through the different stages of the social marketing process.	Successful social marketing programmes reflect a logical planning process, which can be used at both individual and strategic policy development levels. The total process planning model (see www.nsms.org.uk) is a simple conceptualisation of the process, which in practice can be challenging to action. The key stages are: • scope: examine and define the issue • develop: test out the proposition and pre-test, refine and adjust it • implement: commence interventions/campaign, and • evaluate: impact, process and cost assessment. The emphasis is placed on the 'scoping stage' of the model and its role in establishing clear, actionable and measurable behaviour goals to ensure focused development across the rest of the process. Although the model appears linear, people's needs, wants and motivations change over time so it is important that follow-up is conducted to make sure the needs of the consumers are still being met by the intervention.
How long does the scoping to development phase usually take?	It can depend on a variety of factors, such as ease of recruitment from the target audience for the qualitative research, etc. However, scoping done thoroughly usually takes between two and four months. The development phase usually takes around the same amount of time. However, again, this can depend on various factors – for example, on how many times the intervention needs to be pre-tested and refined before it is ready to roll out.
How involved will the primary care trust/strategic health authority be in the social marketing process?	We hope that the PCT/SHA will be heavily involved in the scoping and the development phases of the social marketing process. From our experience local employees sit on vast amounts of invaluable local knowledge. We attempt to harness this knowledge by interviewing key stakeholders during the scoping phase. We also hope that the PCT/SHA will wish to be involved in all four stages of the social marketing process.
Talk me through what you plan to do in the scoping phase and why.	During the scoping phase we will map the issue we are addressing (using epidemiological/prevalence data) and try to build up a detailed psychographic picture of the target audience – what their current behaviour is, their attitudes, values, etc. This mapping exercise will be completed using secondary data (both national and local). Where there are gaps in the existing data, these will be filled by collecting qualitative data at the local level. During the scoping phase the following actions will also be completed: a review of past interventions – what has worked/ what did not work nationally and locally; a competition analysis; a policy review – how the topic area/target audience fits into the current political climate; audience segmentation; and interviews with key stakeholders.

Question	Answer
What research methods do you think would be applicable for understanding the target audience?	It really depends on who the target audience is. Often qualitative methods, such as focus groups and individual interviews, if performed in a robust manner, can provide useful insight. However, sometimes these commonly employed methods are not suitable for certain audiences. In some cases, using ethnographic techniques to collect the data may prove more insightful. (Ethnography is a method of observing human interactions in their social, physical and cognitive environments.)
How would you evaluate the intervention and at what stages in the process?	It is important to think about evaluation during the scoping phase of the process and that a clear behavioural baseline is identified early on. Qualitative research can be used when undertaking a process evaluation which might involve speaking to members of the project team, stakeholders and users to see how the intervention is currently doing – with the option of adaptation if needed. Other forms of evaluation can include quantitative analysis looking at the uptake of a particular service, or how satisfied customers were with it. Media evaluation is another form of assessing the effectiveness of campaigns. This can involve an analysis of press coverage. Budget and time permitting, it may be advantageous to run a control group to compare against, to assess the effectiveness of a particular intervention.
What do you think the intervention will be?	Until we have conducted the scoping phase, it is not possible to know what the intervention will be and how much it will cost exactly. However, it is most likely that the intervention will be multi-faceted and build on existing good services and work that is currently being done in the local area.



TOOL D14 Monitoring and evaluation: a framework

TOOL D14

For:	- Commissioners in primary care trusts (PCTs) and local authorities - Programme managers
About:	This tool provides a framework for evaluating and monitoring local interventions. It presents a 12-step guide on the key elements of evaluation, an evaluation and monitoring checklist, and a glossary of terms.
Purpose:	To provide local areas with an understanding of the basics of evaluating and monitoring interventions.
Use:	Should be used as a guide to plan and implement an evaluation and monitoring framework for interventions to tackle obesity.
Resource:	<i>Passport to evaluation</i> . ²⁰³ See: www.homeoffice.gov.uk

When an evaluation of an intervention is undertaken, it is important that it is:

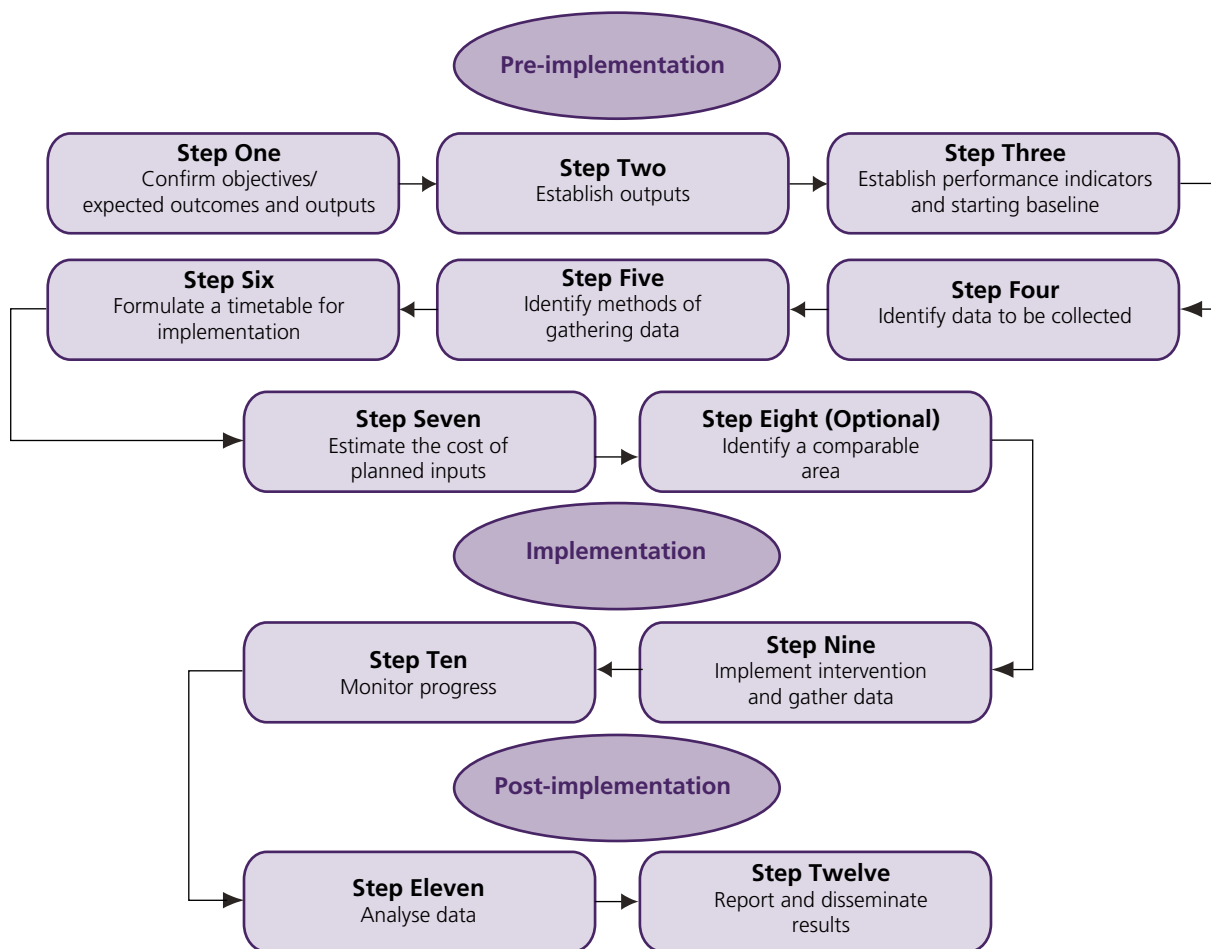
- planned
- organised, and
- has clear objectives and methods for achieving them.

There are three stages to the monitoring and evaluation framework:

- 1 Pre-implementation (planning)
- 2 Implementation
- 3 Post-implementation.

The diagram on the next page outlines the framework, with detailed information provided on pages 160-170.

A framework for evaluating and monitoring local interventions



Pre-implementation (planning)

Step One: Confirm objectives/expected outcomes and outputs

Objectives are the key to every successful programme and evaluation. Every evaluation is about measuring whether the objectives have been achieved. Before starting the evaluation, local areas must be clear about what the objectives are.

Unless you have a clear idea about what the project is trying to achieve, you cannot measure whether or not it has been achieved.

A simple way to set objectives is to use SMART objectives:

- **Specific** – Objectives should specify what you want to achieve.
- **Measurable** – You should be able to measure whether you are meeting the objectives or not.
- **Achievable** – Are the objectives you have set achievable and attainable?
- **Realistic** – Can you realistically achieve the objectives with the resources you have?
- **Time** – When do you want to achieve the set objectives?

The National Indicators of success can guide local areas in establishing intervention outcomes. See **Tool D5** for a list of indicators relevant to obesity.

Step Two: Establish outputs for the intervention

Outputs are the things that need to be produced or done in order to achieve the desired objectives/outcomes. For example, if the intervention is to set up a local football club to increase the amount of physical activity among children, the outputs might be: organise publicity for the club in local schools and communities, employ and train volunteers, organise the location for the club and so on.

Step Three: Establish performance indicators and starting baseline

Once your local area is clear about the objectives and outcomes of the intervention, the next step is to think about how to measure the extent to which they have been achieved. **Performance indicators** (PIs) are a means by which you can do this. They can be quantitative, which means that they use statistical information to measure the effects of a piece of action. Or they can be qualitative, which means that they measure things such as feelings and perceptions.

Performance indicators can use any information, from any source, that shows whether objectives are being met. Obesity prevalence figures are quantitative PIs – they are a direct measure of the degree of the problem in your area. Other PIs, such as those that measure parents' perceptions of their child's diet, are qualitative. If an intervention's objective is to educate parents in the target clusters about healthy eating, qualitative PIs must be used to measure this.

When you are developing performance indicators, it is important to establish a **starting baseline** for the intervention against which performance will be measured. Performance indicators are a key part of any monitoring and evaluation framework, as they enable the measurement of what actions have been achieved.

Key points

- *Be clear about what you are measuring. Having a clear idea of what you are trying to achieve will help in selecting the right indicators. Always ensure that the data required are available and easily collected.*
- *Think about the context. Performance indicators may need to take account of underlying trends, or the environment in which the intervention is operating.*
- *Performance indicators can never be conclusive proof that a project is successful; they can only ever be indicators. This is because external factors, which have not been measured, can have an impact on an intervention without a local area being aware of them. However, well chosen indicators that come from a wide range of sources and illustrate different aspects of an intervention can provide good evidence of its success.*

Step Four: Identify data to be collected

The next step in the framework is to decide what data need to be collected to measure the intervention's success against the performance indicators. It is important to collect the right information, at the right time and in the right format. Some questions to be asked at the beginning are:

- **What data are needed to calculate the performance indicators?**
It is important to write a list of the data that might be available already, eg local GP lists, health inequalities data, healthy lifestyle behaviour data, land use statistics, indices of

deprivation, National Statistics Socio-economic Classification (NS-SeC) data, distance travelled to work data, and so on.

- **How much detail is needed?**

The level of data required depends on what the data are going to be used for. Generally speaking, detailed data help to pinpoint problems and provide an accurate picture of what has happened, and higher level data are useful for showing general trends. Collecting and analysing detailed data can be expensive and time-consuming, so plan ahead and only collect as much as is needed.

- **When and how often are data needed?**

It is important to have data at the start of the intervention for comparison purposes and at the end so that the long-term effects can be measured.

- **What format are the data required in?**

It is important to remember that data come in different forms because of different IT packages. If the data are not in an accessible format, this may incur extra work to get it in the right format. Think about the extra work and costs involved.

- **Where do the data come from?**

Data can come from many different sources, eg partner organisations, GP surgeries, National Statistics, voluntary organisations, census information, and existing perception surveys.

- **Are the data available, accurate and reliable?**

- **Availability:** If the data are not available, local areas may need to collect it themselves. Some questions to ask are: Are the data vital to the evaluation? Are the time and cost worthwhile? Will resources will available? (See Step Five – *Identify methods of gathering data*.)
- **Accuracy:** This is vital. Some important questions to ask are: Is the sample of population the data were taken from representative of the target population? Are the data recorded correctly? Did the analytical package used produce an accurate picture of the raw data? Have data been collected objectively or has the collector introduced bias?
- **Reliability:** Some questions to ask are: Are the data available at the times required? Are the data measuring the same or a similar thing to what you are evaluating? Are the data current?

Step Five: Identify methods of gathering data

If data are not available or are not of sufficient quality or relevance, local areas may need to collect data themselves. A selection of methods and techniques for collecting data is shown in the table on the next page. These are provided to give local areas an idea of what methods are available to them.

Methods of gathering data

Method	Typical techniques	Typical context of use	Pros and cons
Surveys	Interviews Mapping Questionnaires	All-purpose. Operational: mapping interactions between actors. Summative: user satisfaction; user impacts. Learning: surveys of participants' experiences.	Easy to carry out. Can produce large numbers of responses. Limited depth in questionnaire surveys (more depth in interviews and focus groups). Good in outcome-linked evaluations.
Field studies	Observation Task analysis Critical incidents Case studies Diaries	All-purpose. Summative: how users respond to intervention. Operational: how institutional structures operate. Learning: retrospective analysis of what happened. Comparison of different settings.	In-depth data, giving insights on social construction of intervention. Time-consuming and skill-intensive. Difficult to utilise in outcome-linked evaluations.
Modelling	Simulations Soft systems	Usually operational and learning modes. Assessing organisational structure, dynamics and change. Cost-benefit analysis. Optimisation of management functions.	Can predict possible outcomes to adjustments in uncertain and complex contexts. Sometimes highly abstracted. Requires high level of skill.
Interpretative	Content analysis	All purpose. Used in operational (analysis of meetings etc), summative (analysis of materials or reports) and learning (deconstruction of programme reports).	Deconstruction of 'hidden' meanings and agendas. Rich interpretation of phenomena. Inherent risk of ideological bias.
Critical	Discourse analysis	More theoretical (usually critical theory) based than content analysis. Typically used to assess structure, coherence and value of large-scale programmes for learning purposes.	As for interpretative methods, but emphasises establishment of generalisable laws. Perceived to be unscientific, especially by experimentalist practitioners.
Participatory	Action research	Typically in developmental evaluation mode.	Encourages real engagement of subjects of intervention. Good in highly uncertain contexts. Evaluators sometimes get too involved in intervention itself.

The table below summarises the broad types of interventions used in tackling obesity, and gives some examples of evaluation questions and evaluation methods that would be associated with a particular type of intervention.

Type of initiative	Evaluation questions	Evaluation methods
Awareness-raising campaigns	Which cluster group(s) changed their attitudes towards healthy eating and in what ways? How many articles were published in the local media and what was the content?	Cross-sectional surveys Focus groups Content analysis of media
Public participation	How can more people become physically active? Should GPs be providing more advice?	Focus groups Questionnaire surveys
Interactive events (outreach, theatre, demonstrations)	How many and what type of people attended the event? How engaged was the audience? In what ways did participants' views of obesity change?	Exit polls Quota sample Analysis of attendance records Observation Interviews
Education and training	How many healthcare professionals attended obesity training courses? How many overweight and obese patients were provided with advice by healthcare professionals?	Statistical analysis Questionnaire surveys Interviews
Ongoing profile-raising	To what degree and in what way is obesity covered in popular media? What contribution does profile-raising investment make to obesity policy and improving the knowledge base?	Content analysis of sample of newspapers Citation analysis of academic journals
Targeted access and inclusion actions	Are minority ethnic groups more receptive to advice on healthy eating or physical activity than the general population? Has this had an effect on the number of obese people in the target cluster group?	Statistical analysis Questionnaire surveys
Policy actions	Has the implementation of the consultation exercise created new partnerships?	Focus groups Documentation Analysis
Horizontal and supporting actions	How many schools are taking part in the National Child Measurement Programme?	Statistical surveys Documentation Analysis
Operational reviews	Which public engagement approach is most cost-effective?	Process evaluation Cost-effectiveness Analysis

Key point

Analysis requirements: Bear in mind that the selection of particular methods and techniques also implies using the appropriate type of data analysis (which has its own resource and skills implications). In general, large data sets (such as those derived from surveys) normally need statistical software systems such as SPSS. Interpretative data (derived, for example, from content analysis) can be analysed with proprietary qualitative software packages such as NVivo. In any case, a clear coding frame to analyse such data is necessary.

Step Six: Formulate a timetable for implementation

In order that the programme runs as smoothly as possible and meets deadlines, local areas should put together a timetable of implementation. As a minimum, the timetable should:

- list all the key stages of work including milestones for key activities, eg football club to be set up by (date)
- show the dates by which each stage needs to be completed
- show what resources are needed for each stage
- show who needs to be involved at each stage
- include milestones for regular review of the inputs and outputs, and
- be regularly updated to reflect any changes.

An example of a timetable grid for implementation is presented below:

No.	Intervention	Lead officer	Inputs	Outputs	Outcome	Baseline	Performance measures	Timetable
1								
2								
3								

Step Seven: Estimate the costs of planned inputs

Estimating the costs of planned inputs at the beginning of and during the intervention will enable analysis of the cost-effectiveness of the intervention. Some examples of input costs are staff time, publicity costs, equipment and transport costs, and use of leisure centre. It is important to review input costs during the intervention to ensure that an accurate analysis of cost-effectiveness is undertaken.

Step Eight (Optional): Identify a comparable area

Comparing changes in the intervention area with what is happening in another area is useful in helping to establish whether any changes are a result of the intervention or could have happened anyway. If local areas undertake this step, they should identify a comparison area (similar in size and characteristics) not covered by the intervention so that a comparison at the post-implementation stage can be undertaken. It is important to look at the wider area around the intervention for comparison.

Implementation

Step Nine: Implement intervention and gather data

The following are some important aspects to consider for the implementation step of the evaluation framework.

- **Contingency planning:** As with planning an evaluation in general, anticipating adjustments and changes to data collection is to be encouraged. It is useful to have a 'plan B' with alternative arrangements for data collection should it become apparent that, for example, time, skills or operational constraints are likely to conspire against planned activities.

- **Triangulation:** The evaluation should already have been designed with regard to the resource requirements of the choices specified and with the 'insurance' of contingency planning in mind. It is also worth noting that 'insurance' also has a methodological component: triangulation. Triangulation means utilising different methods to cover the evaluation from different angles (for example, assessing the effectiveness of organisational structures of an intervention from the points of view of different actors).
- **Operational rules:** The evaluation should be able to track (and have a record of): what data are being collected, who collects the data, and in what form and location the data are stored. Clear rules about operational procedures should be set out and distributed to all those involved in data collection and analysis. Similarly, it is useful to draw up 'evaluation contracts' with other stakeholders, especially those supplying information. These contracts should specify the objectives of the evaluation and any guarantees that apply (for example, on confidentiality).

Step Ten: Monitor progress

Make any necessary adjustments to implementation, structures and processes using the pre-implementation steps.

- Monitor inputs.
- Monitor output and outcome data using the performance indicators identified.
- Monitor key milestones.
- Consider whether there are any core tracking data that do not relate directly to the inputs, milestones, outputs or outcomes that it may also be useful to collect and monitor.
- Allow the results of the monitoring to dictate any changes to the ongoing implementation of the intervention.

An example of monitoring the intervention would be: Keep a record of the resources used in running the intervention, eg number of staff, who the staff are, how many hours staff work, and costs incurred by the intervention.

Once a framework is established, those running the intervention monitor the data and feed back the relevant information to the partnership.

Post-implementation

Step Eleven: Analyse data

Before analysing data, local areas need to ask the following questions:

- Are the data in the right format to apply to the performance indicators?
- Are there in-house facilities for analysing the data or do they need to be bought in?
- What methods of analysis are there?

Key point

It is important that data analysis is undertaken by an expert in statistical analysis.

Once the intervention has been implemented and data collected for evaluation, local areas should:

- compare outcome data with the baseline
- calculate the cost-effectiveness of the intervention

- calculate the costs of the intervention, including any inputs monitored during the intervention
- examine comparable areas
- examine trends in the wider area and any similar comparison area to assess the impact of the intervention.

Step Twelve: Report and disseminate results

This step should be a continuation of the evaluation process. In this sense, it is important to give those involved in the intervention being evaluated, as well as in the evaluation itself, and project participants a sense of closure of the project and the evaluation, where appropriate, by running concluding feedback events.

More generally, it is important to the reputation, value and impact of the evaluation to give final formal feedback to everybody who has contributed in some way to the evaluation (for example, by sending them a copy of the report or inviting them to a final feedback event).

Dissemination should not be restricted to the circulation of a final report – especially in the case of developmental process evaluation. Different stakeholders may require different communication approaches. These might include:

- short summaries of the evaluation, tailored to different audiences
- journal articles for other researchers
- topical articles in the 'trade' press
- workshops for specific audiences
- feedback seminars for key decision makers.

The results from the evaluation should always be fed back into the future planning of interventions.

Monitoring and evaluation framework checklist

	Yes	No	Action
Pre-implementation			
Step One: Confirm objectives/expected outcomes and outputs			
Have SMART objectives been developed to show what the intervention is trying to achieve?			
Are outcomes in place to show what the final achievement of the intervention will be? (This should relate to the overall aim.)			
Step Two: Establish outputs for the intervention			
Have outputs been established to show what tasks are being carried out to achieve the outcomes (eg establishing a baseline, producing quarterly reports)?			
Step Three: Establish performance indicators and starting baseline			
Have performance indicators been established, taking into account data availability, surrounding environment and underlying trends of local area?			
Has a starting baseline been established?			
Step Four: Identify data to be collected			
Has the source of data been identified to calculate the performance indicators?			
Do the data need to be collected?			
Have the data been checked for accuracy and reliability?			
Is extra work required to format the data for analysis?			
Step Five: Identify methods of gathering data			
Have the methods of data collection been agreed?			
Have appropriate analytical methods been agreed?			
Have statistical specialists been employed to complete the analysis?			
Step Six: Formulate a timetable for implementation			
Has an implementation timetable been formulated to ensure the intervention runs and finishes on time?			
Have milestones for key activities of the intervention been established?			
Have milestones for regular review of the inputs and outputs been established?			
Step Seven: Estimate the costs of planned inputs			
Have the input costs been estimated, to enable the analysis of cost-effectiveness of the intervention?			
Step Eight (Optional): Identify a comparable area			
Has a comparable area been identified to ensure any changes are a result of the intervention?			

	Yes	No	Action
Implementation			
Step Nine: Implement intervention and gather data			
Has a contingency plan been organised?			
Have operational rules been written and sent to all partners?			
Step Ten: Monitor progress			
Are the inputs being monitored?			
Are the output and outcome data being monitored?			
Are the key milestones being monitored?			
Post-implementation			
Step Eleven: Analyse data			
Have the outcome data been compared with the baseline?			
Has the cost-effectiveness of the intervention been calculated?			
Have the costs of the intervention, including any inputs monitored during the intervention, been calculated?			
Has the comparable area been examined?			
Have the trends in the wider area and any similar comparison area been examined, to assess the impact of the intervention?			
Step Twelve: Report and disseminate results			
Have the results been disseminated to stakeholders in an appropriate form?			
Have the results been fed back into the future planning of interventions?			

Glossary

Aim	A simple statement that sets out the purpose of the intervention.
Baseline	The situation at the start of an intervention, before any preventive work has been carried out. The information that helps to define the nature and extent of the problem.
Evaluation	Evaluation is the process of assessing, at a particular point in time, whether or not particular interventions are achieving or have achieved their objectives. Evaluation is about measuring the outcomes of a particular intervention. An outcome is the overall result of an intervention. Evaluation can also be used to measure whether the processes used in an intervention are working properly. This is called process evaluation and it measures the inputs and outputs of an intervention.
Input	The inputs to an intervention are the resources used to carry out the work. Resources can be financial, material or human.
Milestones	Key points during the life of an intervention. They are decided at the planning stage and can be time-based or event-based.
Monitoring	The process of continually assessing whether or not particular interventions are achieving or have achieved their objectives. Monitoring is also used to check whether the processes being used are working effectively. Monitoring is carried out throughout the life of an intervention, while evaluation is only carried out at specific points in time.
Objective	A statement that describes something you want to achieve – a desired outcome of an intervention or an evaluation study.
Outcome	The outcome of an intervention is the overall result of applying the inputs and achieving the outputs.
Output	A piece of work produced for an intervention. An output is not necessarily the final purpose of an intervention. Outputs are usually things that need to be done in order to produce the desired result. During the life of an intervention, outputs are monitored to make sure they are being achieved on time and with the resources available.
Performance indicator (PI)	The means by which you know whether or not you have achieved your targets and objectives. A PI is any information that indicates whether a particular objective has been met. You can also use PIs that measure whether the inputs and outputs in an intervention are working. For example, if a project is using public meetings as one of its inputs, a PI could be used to measure the number of meetings held and the number of people who attend each meeting. These kind of PIs are called process PIs.
Process evaluation	Process evaluation measures the inputs and outputs of a project.
Programme	A programme is a group or collection of interventions designed to achieve particular objectives. The interventions in a programme are usually linked to a particular problem or a particular area and fall under a common aim.
Qualitative PI	PIs that measure qualities, which are usually quite intangible things, such as the perceptions and feelings of individuals and groups.
Quantitative PI	PIs that measure tangible things, such as the number of obese children in an area.



TOOL D15 Useful resources

TOOL D15

For:	All partners involved in planning and implementing an obesity strategy
About:	This tool provides a list of training programmes, publications, useful organisations and websites and tools for healthcare professionals.
Purpose:	To provide local areas with the resources to build local capability.
Use:	• Can be used for keeping up to date with the latest developments in obesity. • Can be used to gather more detailed information on science and policy.
Resource:	See the <i>Organisations and websites</i> section of this tool on page 185.

National Heart Forum e-News Briefing Service

The National Heart Forum e-News Briefing Service provides subscribers with electronic information on the latest reports and developments relevant to the prevention of avoidable chronic diseases including cardiovascular diseases, cancer, diabetes and related conditions such as obesity.

It covers a broad range of topics including nutrition, physical activity, alcohol, cancer, obesity, tobacco control, stroke, diabetes, hypertension, child poverty and health inequalities.

The service contains details of current media reports, training courses, consultations, policy development, campaigns, career opportunities, latest public health guidance, new resources and forthcoming events.

It is an essential information source for all policy makers, strategic health authorities, local authorities, researchers, public health and primary care professionals and others with an interest in disease prevention and health promotion.

To subscribe

The e-News Briefing Service is **FREE** by e-mail either three times a week (Monday, Wednesday and Friday) or once a week (Wednesday only). You can subscribe by emailing **briefings@heartforum.org.uk**. In the subject heading, request either "e-News Briefing Service – weekly" or "e-News Briefing Service – 3 x per week".

Further information on this service and archived versions of the Weekly e-News briefings can be found at **www.heartforum.org.uk/News_Media_eNewsbrief.aspx**

Promotion opportunity

The National Heart Forum also encourages you to take advantage of this free resource to promote your organisation's activities by forwarding any press releases, new resource information or forthcoming events to **briefings@heartforum.org.uk**

Training programmes

Obesity training courses for primary care

Produced by: Dietitians in Obesity Management DOM UK, National Obesity Forum (NOF) and The Association for the Study of Obesity (ASO) (2005)

Available at: domuk.org

This is a training directory for primary care trusts (PCTs) to give an overview of the different types of training courses available for obesity prevention and management. This can provide a starting point for PCTs. This directory is currently being updated. The new version will be available by Spring 2009.

Obesity: A guide to prevention and management – in association with NICE

Developed by: BMJ Learning in collaboration with the National Institute for Health and Clinical Excellence (NICE)

Available at: learning.bmj.com

This module has been designed to train GPs and other healthcare professionals, on the following:

- BMI and other measures of adiposity
- what level of advice or intervention to use with a patient, depending on their BMI, waist circumference and co-morbidities
- how to explore a patient's readiness to change
- advice to patients on diet, physical activity, and community-based interventions
- when to refer to a specialist.

The module is **online** and takes about an hour to complete.

Expert Patients Programme (for patients)

Established by: Department of Health (In 2007, the EPP was established as a Community Interest Company to increase the capacity of course places)

To access course details: www.expertpatients.co.uk

The Expert Patients Programme (EPP) is a national NHS-based self-management training programme which provides opportunities for people who live with long-term conditions to develop new skills to manage their condition better on a day-to-day basis. For example, in terms of tackling overweight and obesity, patients with diabetes or heart disease can learn how to start and maintain an appropriate exercise or physical activity programme. Training programmes are available across the country.

Publications

Prevalence and trends of overweight and obesity

Health Survey for England

Health Survey for England 2006. Volume 1: Cardiovascular disease and risk factors in adults

R Craig and J Mindell (eds.) (2008).

London: The Information Centre for Health and Social Care.

Available from: www.ic.nhs.uk

Health Survey for England 2006. Volume 2: Obesity and other risk factors in children

R Craig and J Mindell (eds.) (2008).

London: The Information Centre for Health and Social Care.

Available from: www.ic.nhs.uk

Health Survey for England 2005: Updating of trend tables to include 2005 data

The Information Centre for Health and Social Care (2006).

London: The Information Centre for Health and Social Care.

Available from: www.ic.nhs.uk

Health Survey for England 2004. Volume 1: The health of minority ethnic groups

The Information Centre for Health and Social Care (2006).

London: The Information Centre for Health and Social Care.

Available from: www.ic.nhs.uk

Health Survey for England 2003. Volume 2: Risk factors for cardiovascular disease

K Sproston and P Primatesta (eds.) (2004).

London: TSO.

Available from: www.dh.gov.uk

Health Survey for England 2002: The health of children and young people

K Sproston and P Primatesta (eds.) (2003).

London: TSO.

Available from: www.archive2.official-documents.co.uk

Foresight publications

Foresight tackling obesity: Future choices – project report, 2nd edition

B Butland, S Jebb, P Kopelman, K McPherson, S Thomas, J Mardell and V Parry (2007).

London: Department for Innovation, Universities and Skills.

Available from: www.foresight.gov.uk

Modelling future trends in obesity and the impact on health. Foresight tackling obesity: Future choices, 2nd edition

K McPherson, T Marsh and M Brown (2007).

London: Department for Innovation, Universities and Skills.

Available from: www.foresight.gov.uk

Other

Forecasting obesity to 2010

P Zaninotto, H Wardle, E Stamatakis, J Mindell and J Head (2006).
London: Joint Health Surveys Unit.
Available from: www.dh.gov.uk

Obesity among children under 11

D Jotangia, A Moody, E Stamatakis and H Wardle (2005).
London: National Centre for Social Research, Department of Epidemiology and Public Health at the Royal Free and University College Medical School.
Available from: www.dh.gov.uk

National Child Measurement Programme: 2006/07 school year, headline results

The Information Centre (2008).
London: The Information Centre.
Available from: www.ic.nhs.uk

PCO level model based estimates of obesity (adults)

The Information Centre (2008).
London: The Information Centre.
Available from: www.ic.nhs.uk

Storing up problems. The medical case for a slimmer nation

Working Party of the Royal College of Physicians of London, Royal College of Paediatrics and Child Health, and Faculty of Public Health (2004).
London: Royal College of Physicians of London.

The health risks of overweight and obesity, and the health benefits of losing excess weight

Foresight tackling obesities: Future choices – project report, 2nd edition

B Butland, S Jebb, P Kopelman, K McPherson, S Thomas, J Mardell and V Parry (2007).
London: Department for Innovation, Universities and Skills.
Available from: www.foresight.gov.uk

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

National Institute for Health and Clinical Excellence (NICE) (2006).
London: NICE.
Available from: www.nice.org.uk

Storing up problems: The medical case for a slimmer nation

Working Party of the Royal College of Physicians of London, Royal College of Paediatrics and Child Health, and Faculty of Public Health (2004).
London: Royal College of Physicians of London.

Tackling obesity in England

National Audit Office (2001).
London: TSO.
Available from: www.nao.org.uk

Obesity: Preventing and managing the global epidemic. Report of a WHO consultation. Technical Report Series 894(3)

World Health Organization (2000).
Geneva: WHO.

Obesity in Scotland. Integrating prevention with weight management. A National Clinical Guideline recommended for use in Scotland (Under review)

Scottish Intercollegiate Guidelines Network (1996).
Edinburgh: SIGN.
Available from: www.sign.ac.uk

National Obesity Forum training resource for health professionals

National Obesity Forum.
London: National Obesity Forum.
Available from: www.nationalobesityforum.org.uk

The economic costs of overweight and obesity

Economic costs of obesity and the case for government intervention

B McCormack and I Stone (2007).
Obesity Reviews; 8 (s1): 161-164.
Available from: www.foresight.gov.uk

Obesity: Costing template and Obesity: Costing report

National Institute for Health and Clinical Excellence (NICE) (2006).
London: NICE.
Available from: www.nice.org.uk

See also *Foresight publications* on page 173.

Causes of overweight and obesity

Foresight tackling obesity: Future choices – project report, 2nd edition

B Butland, S Jebb, P Kopelman, K McPherson, S Thomas, J Mardell and V Parry (2007).
London: Department for Innovation, Universities and Skills.
Available from: www.foresight.gov.uk

Foresight tackling obesity: Future choices – obesity system atlas

IP Vandenbroeck, J Goossens, M Clemens (2007).
London: Department for Innovation, Universities and Skills.
Available from: www.foresight.gov.uk

Preventing chronic disease: A vital investment. WHO global report

World Health Organization (2005).
Geneva: World Health Organization.
Available from: www.who.int

Storing up problems: The medical case for a slimmer nation

Working Party of the Royal College of Physicians of London, Royal College of Paediatrics and Child Health, and Faculty of Public Health (2004).
London: Royal College of Physicians of London.

Government action on overweight and obesity

Key publications

Healthy Weight, Healthy Lives: A cross-government strategy for England

Cross-Government Obesity Unit (2008).

London: Department of Health and Department for Children, Schools and Families.

Available from: www.dh.gov.uk

Healthy Weight, Healthy Lives: Guidance for local areas

Cross-Government Obesity Unit (2008).

London: Department of Health and Department for Children, Schools and Families.

Available from: www.dh.gov.uk

See also ***Foresight publications*** on page 173 and ***Children: Healthy growth and healthy weight*** below.

Children: Healthy growth and healthy weight

The Child Health Promotion Programme: Pregnancy and the first five years of life

S Shribman and K Billingham (2008).

London: Department of Health and Department for Children, Schools and Families.

Available from: www.dh.gov.uk

Improving the nutrition of pregnant and breastfeeding mothers and children in low-income households. NICE public health guidance 11

National Institute for Health and Clinical Excellence (NICE) (2008).

London: NICE.

Available from: www.nice.org.uk

Statutory Framework for the Early Years Foundation Stage. Setting the standards for learning, development and care for children from birth to five

Department for Children, Schools and Families (2008).

London: Department for Children, Schools and Families.

Available from: www.standards.dfes.gov.uk

Practice guidance for the Early Years Foundation Stage. Setting the standards for learning, development and care for children from birth to five

Department for Children, Schools and Families (2008).

London: Department for Children, Schools and Families.

Available from: www.standards.dfes.gov.uk

Eating well for under-5s in child care. Practical and nutritional guidelines

H Crawley (2006).

St Austell: Caroline Walker Trust.

Available from: www.cwt.org.uk

The National Child Measurement Programme. Guidance for PCTs: 2008-09 school year

Cross-Government Obesity Team (2008).

London: Department of Health and Department for Children, Schools and Families.

Available from: www.dh.gov.uk

National Child Measurement Programme: 2006/07 school year, headline results

The Information Centre (2008).
 London: The Information Centre.
 Available from: www.ic.nhs.uk

Tackling child obesity – first steps

The Audit Commission, the Healthcare Commission and the National Audit Office (2006).
 London: The Stationery Office.
 Available from: www.nao.org.uk

Eating well at school. Nutritional and practical guidelines

H Crawley, on behalf of the Caroline Walker Trust and the National Heart Forum (2005).
 The Caroline Walker Trust.
 For details see: www.cwt.org.uk

Food in Schools toolkit

Department of Health (2005).
 London: Department of Health.
 Available from: www.foodinschools.org

Obesity guidance for healthy schools coordinators and their partners

Department of Health (2007).
 London: Department of Health.
 Available from: www.dh.gov.uk

Preventing childhood obesity: Health in the balance

Institute of Medicine of the National Academies (2005).
 Washington DC: Institute of Medicine of the National Academies.
 Available from: www.nap.edu

Towards a generation free from coronary heart disease: Policy action for children's and young people's health and well-being

National Heart Forum (2002).
 London: National Heart Forum.

See also *Choosing interventions* on page 182.

Promoting healthier food choices**Choosing a better diet: A food and health action plan**

Department of Health (2005).
 London: Department of Health.
 Available from: www.dh.gov.uk

Family food in 2006. A National Statistics publication by Defra

Department for Environment, Food and Rural Affairs (2008).
 London: TSO.
 Available from: statistics.defra.gov.uk

Family spending. 2007 edition

E Dunn (2007).
 London: Office for National Statistics.
 Available from: statistics.defra.gov.uk

Nutrition and food poverty: A toolkit for those involved in developing or implementing a local nutrition and food poverty strategy

V Press, on behalf of the National Heart Forum and Faculty of Public Health (2004).
London: National Heart Forum.
Available from: www.heartforum.org.uk

See also *Choosing interventions* on page 182.

Building physical activity into our lives

At least five a week: Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer

Department of Health (2004).
London: Department of Health.
Available from: www.dh.gov.uk

Building health: Creating and enhancing places for healthy, active lives: What needs to be done?

National Heart Forum, Living Streets, CABI (2007).
London: National Heart Forum.
Available from: www.heartforum.org.uk

Building health: Creating and enhancing places for healthy, active lives. Blueprint for action

National Heart Forum, Living Streets, CABI (2007).
London: National Heart Forum.
Available from: www.heartforum.org.uk

National Travel Survey: 2007

Department for Transport (2007).
London: Department for Transport.
Available from: www.dft.gov.uk

Promoting and creating built or natural environments that encourage and support physical activity. NICE public health guidance 8

National Institute for Health and Clinical Excellence (NICE) (2008).
London: NICE.
Available from: www.nice.org.uk

See also *Choosing interventions* on page 182.

Creating incentives for better health

Working for a healthier tomorrow. Dame Carol Black's review of the health of Britain's working age population

Cross-government Health, Work and Wellbeing Programme (2008).
London: TSO.
Available from: www.workingforhealth.gov.uk

See also *Choosing interventions* on page 182.

Personalised advice and support for overweight and obese people

Clinical guidance: UK – Children and young people

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

National Institute for Health and Clinical Excellence (NICE) (2006).

London: NICE.

Available from: www.nice.org.uk

Care pathway for the management of overweight and obesity

Department of Health (2006).

London: Department of Health.

Available from: www.dh.gov.uk

Management of obesity in children and young people. A National Clinical Guideline

Scottish Intercollegiate Guidelines Network (2003).

Edinburgh: SIGN.

Available from: www.sign.ac.uk

An approach to weight management in children and adolescents (2-18 years) in primary care

Royal College of Paediatrics and Child Health and National Obesity Forum (2002).

London: Royal College of Paediatrics and Child Health.

Available from: shop.healthforallchildren.co.uk

Clinical guidance: UK – Adults

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

National Institute for Health and Clinical Excellence (NICE) (2006).

London: NICE.

Available from: www.nice.org.uk

Care pathway for the management of overweight and obesity

Department of Health (2006).

London: Department of Health.

Available from: www.dh.gov.uk

JBS 2: Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice

British Cardiac Society, British Hypertension Society, Diabetes UK, HEART UK, Primary Care Cardiovascular Society, The Stroke Association (2005).

Heart; 91; Suppl V: v1-v52.

Available from: heart.bmj.com

National Obesity Forum obesity care pathway and toolkit

National Obesity Forum (2005).

London: National Obesity Forum.

Available from: www.nationalobesityforum.org.uk

National Obesity Forum guidelines on management of adult obesity and overweight in primary care

National Obesity Forum (2004).

London: National Obesity Forum.

Available from: www.nationalobesityforum.org.uk

Obesity

PRODIGY Knowledge (2001).

Newcastle: Sowerby Centre for Health Informatics at Newcastle Ltd (SCHIN).

Available from: www.prodigy.nhs.uk

Obesity in Scotland. Integrating prevention with weight management. A National Clinical Guideline recommended for use in Scotland (Under review)

Scottish Intercollegiate Guidelines Network (1996).

Edinburgh: SIGN.

Available from: www.sign.ac.uk

Clinical guidance: Australia and United States

Clinical practice guidelines for the management of overweight and obesity in children and adolescents

National Health and Medical Research Council (2003).

Canberra, ACT: NHMRC.

Available from: www.health.gov.au

Clinical practice guidelines for the management of overweight and obesity in adults

National Health and Medical Research Council (2003).

Canberra, ACT: NHMRC.

Available from: www.health.gov.au

The practical guide: Identification, evaluation, and treatment of overweight and obesity in adults

National Heart, Lung and Blood Institute (2000).

Bethesda, MD: National Institutes of Health.

Available from: www.nhlbi.nih.gov

Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: The evidence report

National Heart, Lung and Blood Institute (1998).

Bethesda, MD: National Institutes of Health.

Available from: www.nhlbi.nih.gov

NICE clinical guidance implementation support tools

Obesity: Costing template, Costing report, Audit criteria, Presenter slides and Guide to resources to support implementation

National Institute for Health and Clinical Excellence (NICE) (2006).

London: NICE.

Available from: www.nice.org.uk

*Referral to services***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**

National Institute for Health and Clinical Excellence (2006).

London: NICE.

Available from: www.nice.org.uk

Overweight health professionals giving weight management advice: The perceptions of health professionals and overweight people

V Lawson and C Shoneye (2008).

London: Weight Concern.

*GP contract***Standard General Medical Services contract (2006)**

Available from: www.dh.gov.uk

Revisions to the GMS contract, 2006/07. Delivering investment in general practice

British Medical Association and NHS Employers (2006).

London: BMA and NHS Employers.

Available from: www.nhsemployers.org

*World Class Commissioning***World Class Commissioning: Competencies**

Department of Health (2008).

London: Department of Health.

Available from: www.dh.gov.uk

*Setting local goals***How to set and monitor goals for prevalence of child obesity: Guidance for primary care trusts (PCTs) and local authorities**

Cross-Government Obesity Unit (2008).

London: Department of Health and Department for Children, Schools and Families.

Available from: www.dh.gov.uk

National Child Measurement Programme: 2006/07 school year, headline results

The Information Centre (2008).

London: The Information Centre.

Available from: www.ic.nhs.uk

The new Performance Framework for local authorities and local authority partnerships: Single set of National Indicators

Department for Communities and Local Government (2007).

London: Department for Communities and Local Government.

Available from: www.communities.gov.uk

Choosing interventions

NICE guidance

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

National Institute for Health and Clinical Excellence (NICE) (2006).

London: NICE.

Available from: www.nice.org.uk

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. Public health intervention guidance no. 2

National Institute for Health and Clinical Excellence (NICE) (2006).

London: NICE.

Available from: www.nice.org.uk

Behaviour change at population, community and individual levels. NICE public health guidance 6

National Institute for Health and Clinical Excellence (NICE) (2007).

London: NICE.

Available from: www.nice.org.uk

Promoting and creating built or natural environments that encourage and support physical activity. NICE public health guidance 8

National Institute for Health and Clinical Excellence (NICE) (2008).

London: NICE.

Available from: www.nice.org.uk

Improving the nutrition of pregnant and breastfeeding mothers and children in low-income households. NICE public health guidance 11

National Institute for Health and Clinical Excellence (NICE) (2008).

London: NICE.

Available from: www.nice.org.uk

Workplace health promotion: How to encourage employees to be physically active. NICE public health guidance 13

National Institute for Health and Clinical Excellence (NICE) (2008).

London: NICE.

Available from: www.nice.org.uk

Promoting healthier food choices

Nutrition and food poverty. A toolkit for those involved in developing or implementing a local nutrition and food poverty strategy

V Press, on behalf of the National Heart Forum and the Faculty of Public Health (2004).

London: National Heart Forum.

Available from: www.heartforum.org.uk

Think fit! Eat well! A guide to developing a workplace healthy eating programme

British Heart Foundation (2008).

London: British Heart Foundation.

For details see: www.bhf.org.uk

*Physical activity***The effectiveness of public health interventions for increasing physical activity among adults: A review of reviews. 2nd edition**

M Hillsdon, C Foster, B Naidoo and H Crombie (2005).

London: Health Development Agency.

Available from: www.publichealth.nice.org.uk

Let's get moving! A physical activity handbook for developing local programmes

A Maryon-Davis, L Sarch, M Morris, B Laventure (2001).

London: Faculty of Public Health and National Heart Forum.

Think fit! A guide to developing a workplace activity programme

British Heart Foundation.

London: British Heart Foundation.

For details see: www.bhf.org.uk

Active for later life – Promoting physical activity with older people. A resource for agencies and organisations

BHF National Centre for Physical Activity and Health (2003).

London: British Heart Foundation.

*General***Weight management in primary care: How can it be made more effective?**

A Maryon-Davis (2005).

Proceedings of the Nutrition Society; 64: 97-103.

For details see: www.ingentaconnect.com

Creating a healthy workplace

(Leaflet and accompanying booklet.)

London: Faculty of Public Health and Faculty of Occupational Medicine (2006).

Available from: www.fph.org.uk

Diabetes commissioning toolkit

Department of Health (2006).

London: Department of Health.

Available from: www.dh.gov.uk

See also ***Children: Healthy growth and healthy weight***, on page 176.

*Commissioning services***PCT procurement guide for health services**

Department of Health (2008).

London: Department of Health.

Available from: www.dh.gov.uk

See also ***National Social Marketing Centre*** at www.nsms.org.uk

Monitoring and evaluation

Obesity: Audit criteria

National Institute for Health and Clinical Excellence (NICE) (2006).
London: NICE.
Available from: www.nice.org.uk

Passport to evaluation

Home Office (2002).
York: Home Office.
Available from: www.crimereduction.gov.uk

Evaluation resources for community food projects

P McGlone, J Dallison and M Caraher (2005).
London: Health Development Agency.
Available from: www.nice.org.uk

HEBS Research and evaluation toolbox

Health Education Board for Scotland (HEBS).
Available from: www.hebs.com

Self-evaluation: A handy guide to sources

New Opportunities Fund (2003).
London: New Opportunities Fund.
Available from: www.biglotteryfund.org.uk

Building local capabilities

Obesity training courses for primary care

Dietitians in Obesity Management DOM UK (2005)
London: DOM UK
Available from: domuk.org
(Please note this directory is being updated. The new version will be available by Spring 2009.)

Expert Patients Programme

For details see: www.expertpatients.nhs.uk

Obesity: A guide to prevention and management

See learning.bmj.com for information about this training module. (See also page 172.)

Organisations and websites

Alcohol Concern

www.alcoholconcern.org.uk

American Heart Association (AHA)

www.americanheart.org

Arthritis Research Campaign (ARC)

www.arc.org.uk

Association for the Study of Obesity (ASO)

www.aso.org.uk

Association of Breastfeeding Mothers

www.abm.me.uk

Asthma UK

www.asthma.co.uk

Australasian Society for the Study of Obesity (ASSO)

www.asso.org.au

Beat (Beating eating disorders)

www.b-eat.co.uk

British Association of Sport and Exercise Sciences (BASES)

www.bases.org.uk

British Cardiac Society

www.bcs.com

British Dietetic Association (BDA)

www.bda.uk.com

British Heart Foundation (BHF)

www.bhf.org.uk

British Heart Foundation National Centre for Physical Activity and Health (BHFNC)

www.bhfactive.org.uk

British Nutrition Foundation (BNF)

www.nutrition.org.uk

British Obesity Surgery Patient Association (BOSPA)

www.bospa.org

British Trust for Conservation Volunteers (BTCV)

www.btcv.org

Cancer Research UK

www.cancerresearch.org.uk

Central Council for Physical Recreation

www.ccpr.org.uk

Child Growth Foundation

www.childgrowthfoundation.org

Children's Play Council

www.ncb.org.uk/cpc

Cleaner Safer Greener Communities

www.cleanersafergreener.gov.uk

Communities and Local Government

www.communities.gov.uk

Community Practitioners' and Health Visitors' Association (CPHVA)

www.msfcphva.org

The Counterweight Programme

www.counterweight.org

Cycling England (previously the National Cycling Strategy Board)

www.cyclingengland.co.uk

Department for Children, Schools and Families

www.dcsf.gov.uk

Department for Culture, Media and Sport

www.culture.gov.uk

Department for Transport

www.dft.gov.uk

Department of Health

www.dh.gov.uk

Diabetes UK

www.diabetes.org.uk

Dietitians in Obesity Management (UK) – DOM (UK)

www.domuk.org

European Association for the Study of Obesity (EASO)

www.easoobesity.org

European Childhood Obesity Group

www.childhoodobesity.net

European Commission (Health and Consumer Protection Directorate-General)

europa.eu.int

The European Men's Health Forum (EMHF)

www.emhf.org

Faculty of Public Health

www.fph.org.uk

Fitness Industry Association (FIA)

www.fia.org.uk

The Food Commission

www.foodcomm.org.uk

Food Standards Agency

www.food.gov.uk

www.eatwell.gov.uk

Foresight

www.foresight.gov.uk

Free Swimming

www.freeswimming.org

Heart UK

www.heartuk.org.uk

International Association for the Study of Obesity (IASO)

www.iaso.org

International Diabetes Federation

www.idf.org

International Obesity Taskforce (IOTF)

www.ietf.org

Local Government Association (LGA)

www.lga.gov.uk

Maternity Alliance

www.maternityalliance.org.uk

MEND Programme

www.mendprogramme.org

Men's Health Forum

www.menshealthforum.org.uk

National Heart Forum

www.heartforum.org.uk

National Institute for Health and Clinical Excellence (NICE)

www.nice.org.uk

National Institutes of Health (NIH)

www.nih.gov

National Obesity Forum (NOF)

www.nationalobesityforum.org.uk

National Social Marketing Centre

www.nsms.org.uk

North American Association for the Study of Obesity (NAASO), The Obesity Society

www.naaso.org

Nutrition Society

www.nutrition society.org

Obesity Management Association (OMA)

www.omaorg.com

Office for National Statistics (ONS)

www.statistics.gov.uk

The Overweight and Obesity Organization

www.oo-uk.org

PE, School Sport and Club Links (PESSCL)

www.teachernet.gov.uk/pe

Register for Exercise Professionals (REPS)

www.exerciseregister.org

Royal College of General Practitioners

www.rcgp.org.uk

Royal College of Midwives

www.rcm.org.uk

Royal College of Nursing

www.rcn.org.uk

Royal College of Paediatrics and Child Health

www.rcpch.ac.uk

Royal College of Physicians of London

www.rcplondon.ac.uk

Royal Institute of Public Health

www.riph.org.uk

Royal Pharmaceutical Society of Great Britain

www.rpsgb.org.uk

Royal Society for the Promotion of Health

www.rsph.org

Royal Society of Medicine

www.rsm.ac.uk

Safe Routes to Schools

www.saferoutestoschools.org.uk

Scottish Intercollegiate Guidelines Network (SIGN)

www.sign.ac.uk

Sport England

www.sportengland.org

The Stroke Association

www.stroke.org.uk

Sustain: The alliance for better food and farming

www.sustainweb.org

Sustrans

www.sustrans.org.uk

TOAST (The Obesity Awareness and Solutions Trust)

www.toast-uk.org.uk

TravelWise

www.travelwise.org.uk

United Kingdom Public Health Association (UKPHA)

www.ukpha.org.uk

Walking the Way to Health Initiative (WHI)

www.whi.org.uk

Weight Concern

www.weightconcern.org.uk

Weight Loss Surgery Information and Support (WLSINFO)

www.wlsinfo.org.uk

World Health Organization

www.who.int/en

Tools for healthcare professionals

The following tools are in section E of this toolkit.

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Raising the issue of weight with patients – assessing readiness to change		
Tool E5	Raising the issue of weight – Department of Health advice	217
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Resources for healthcare professionals

This section provides tools for healthcare professionals. It has been divided into three sub-sections: tools to help healthcare professionals assess weight problems; tools to help raise the issue of weight with patients; and tools which give information about further resources.

Assessment of weight problems

- The tools in this sub-section give details of ways of assessing a patient's weight. **Tool E1** contains care pathways from the National Institute of Health and Clinical Excellence (NICE) and the Department of Health. **Tool E2** provides information on ways to identify patients who are most at risk of becoming obese later in life and are in most need of assistance before formal assessments of overweight are made. **Tools E3** and **E4** provide information on measuring and assessing overweight and obesity among children and adult patients.

Raising the issue of weight with patients – assessing readiness to change

- This sub-section follows on from assessment to raising the issue of weight with the patient and assessing their readiness to change. **Tool E5** details the Department of Health's advice for raising the issue. **Tool E6** provides the findings of research undertaken to gain insight into the perceptions – both of overweight patients and overweight healthcare professionals – when overweight healthcare professionals give advice on weight.

Resources for healthcare professionals

- This sub-section provides information on resources available to patients (**Tool E7**), and FAQs on childhood obesity (**Tool E8**). It also gives information on the National Child Measurement Programme (NCMP), including FAQs from parents (**Tool E9**). For information about training courses, see **Tool D15 Useful resources** in section D.

Tools

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TOOL E1 Clinical care pathways

TOOL E1

For:	Healthcare professionals, particularly primary care clinicians
About:	This tool contains guidance from the National Institute for Health and Clinical Excellence (NICE) and the Department of Health. It provides clinical care pathways for children and adults.
Purpose:	To provide healthcare professionals with the official documents that clinicians should be using to assess overweight and obese individuals.
Use:	To be used when in consultation with an overweight or obese patient.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Care pathway for the management of overweight and obesity.</i> ¹²⁰ www.dh.gov.uk

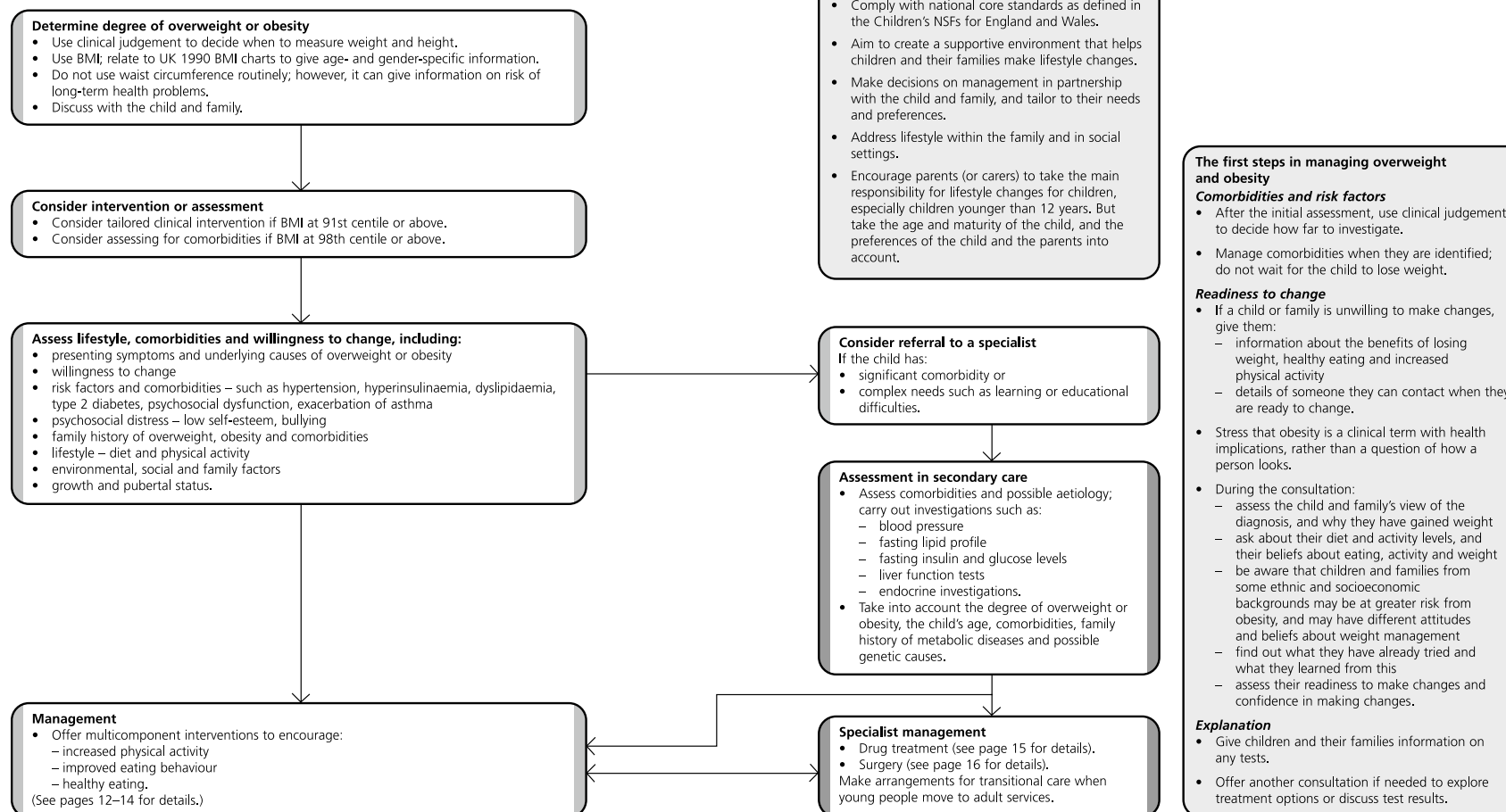
NICE guideline on obesity

NICE has developed clinical care pathways for children and adults for use by healthcare professionals. Further details can be found in *Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children*.⁶ In addition, a summary of NICE recommendations and the clinical care pathways can be found in: *Quick reference guide 2: For the NHS*,²⁰⁴ which can be downloaded from the NICE website at www.nice.org.uk

Clinical care pathway for children

Management of overweight and obesity in children

Assessment and classification



Note: Please refer to the NICE guidelines for page references.

Management of overweight and obesity in adults

Assessment and classification

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height.
- Use BMI to classify degree of obesity (see table 1, below) but use clinical judgement:
 - BMI may be less accurate in highly muscular people
 - for Asian adults, risk factors may be of concern at lower BMI
 - for older people, risk factors may become important at higher BMIs
- Use waist circumference in people with a BMI less than 35 kg/m² to assess health risks (see table 2, bottom left)
- Bioimpedance is not recommended as a substitute for BMI
- Tell the person their classification, and how this affects their risk of long-term health problems

Table 1 Classifying overweight and obesity

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

Table 2 Assessing risks from overweight and obesity

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 than 102 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.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or obesity
- eating behaviour
- risk factors and comorbidities – such as type 2 diabetes, hypertension, cardiovascular disease, dyslipidaemia, osteoarthritis and sleep apnoea; check lipid profile and blood glucose (preferably fasting) and blood pressure
- lifestyle – diet and physical activity
- psychosocial distress
- 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.

Management

- Offer multicomponent interventions to encourage:
 - increased physical activity
 - improved eating behaviour
 - healthy eating (see pages 20–22 for details).
- Drug treatment (see page 23–24 for details).

General principles of care for adults

- Offer regular long-term follow-up by a trained professional.
- Ensure continuity of care through good record keeping.
- Make the choice of any intervention through negotiation with the person.
- Tailor the weight-management programme to the person's preferences, initial fitness, health status and lifestyle.
- In specialist settings, ensure there is equipment for treating people who are severely obese, such as special seating, and adequate weighing and monitoring equipment.
- Hospitals should have access to specialist equipment for general care of people who are severely obese, including larger scanners and beds.

Consider referral:

- for assessment of the underlying causes of overweight or obesity
- if the person has complex disease states or needs that cannot be managed in primary or secondary care
- if conventional treatment has failed
- if considering drug therapy for a person with a BMI more than 50 kg/m²
- if specialist interventions (such as a very-low-calorie diet for extended periods) may be needed
- if surgery is being considered.

Specialist assessment and management

- Assessment and management as needed.
- Surgery and follow-up (see pages 25–26).

A guide to deciding the initial level of intervention to discuss

BMI classification	Waist circumference			Co-morbidities 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.

The first steps in managing overweight and obesity

Comorbidities and risk factors

- After the initial assessment, use clinical judgement to decide how far to investigate.
- Manage comorbidities when they are identified; do not wait for the person to lose weight.

Readiness to change

- If the person is unwilling to make changes, give them:
 - information about the benefits of losing weight, healthy eating and increased physical activity
 - details of someone they can contact when they are ready to change.
- Stress that obesity is a clinical term with health implications, rather than a question of how a person looks.
- During the consultation:
 - assess the person's view of the diagnosis, and why they have gained weight
 - ask about their diet and activity levels, and beliefs about eating, activity and weight
 - be aware that people from some ethnic and socioeconomic backgrounds may be at greater risk from obesity, and may have different attitudes and beliefs about weight management
 - find out what they have already tried and what they learned from this
 - assess readiness to make changes and confidence in making changes.

Explanation

- Give people information on any tests.
- Offer another consultation if needed to explore treatment options or discuss test results.

Note: Please refer to the NICE guidelines for page references.

Care pathways from the Department of Health

Care pathway for the management of overweight and obesity

This booklet offers evidence-based guidance to help primary care clinicians identify and treat children, young people (under 20 years) and adults who are overweight or obese.¹²⁰ The booklet includes:

- Adult care pathway
- Children and young people care pathway
- Raising the issue of weight in adults
- Raising the issue of weight in children and young people.

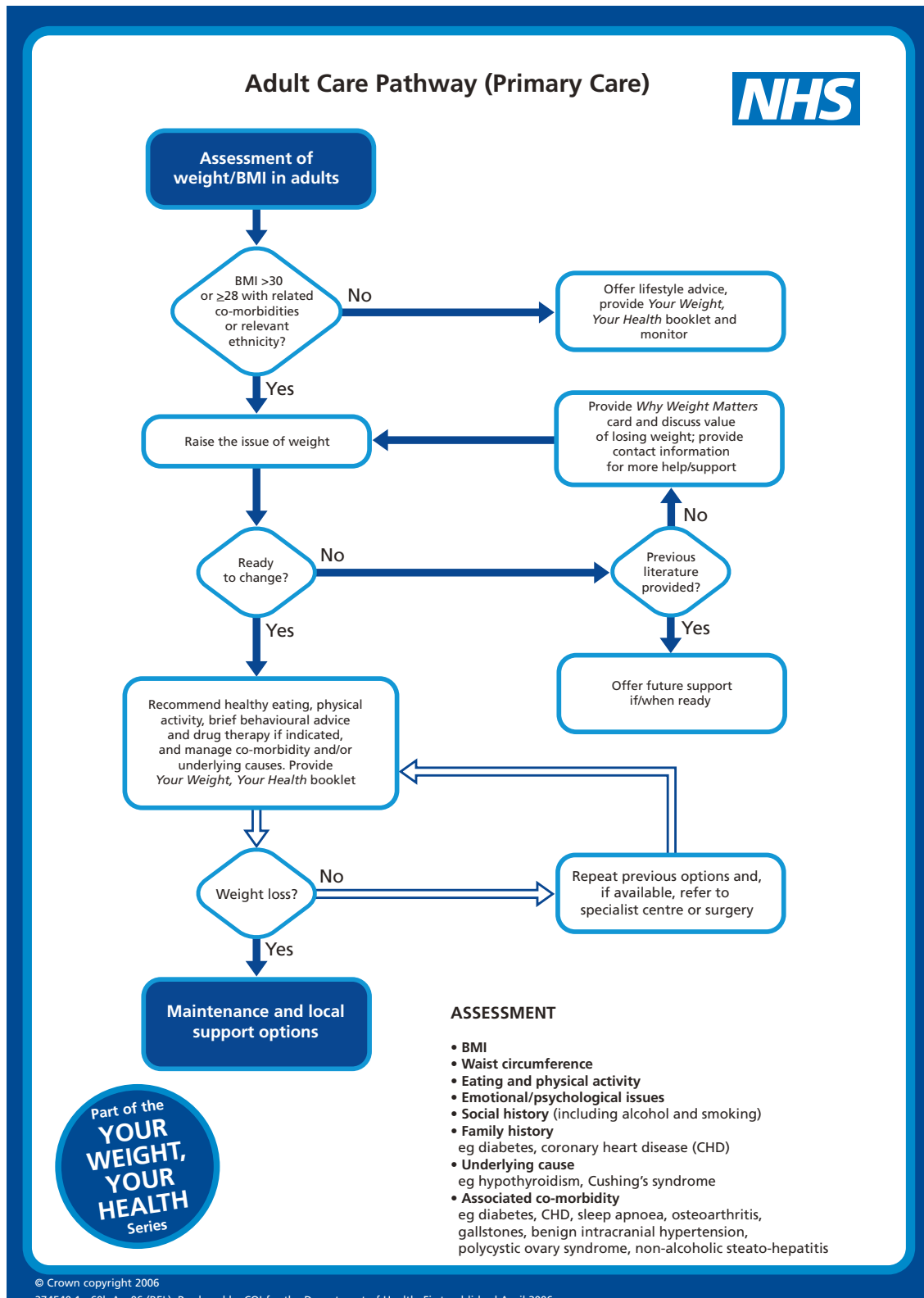
The *Raising the issue of weight* tools provide tips on how to initiate discussion with patients. (See **Tool E5** for more on this.)

The pathways are also available as separate laminated posters (see pages 198-200).

To access these materials, visit www.dh.gov.uk or order copies from:

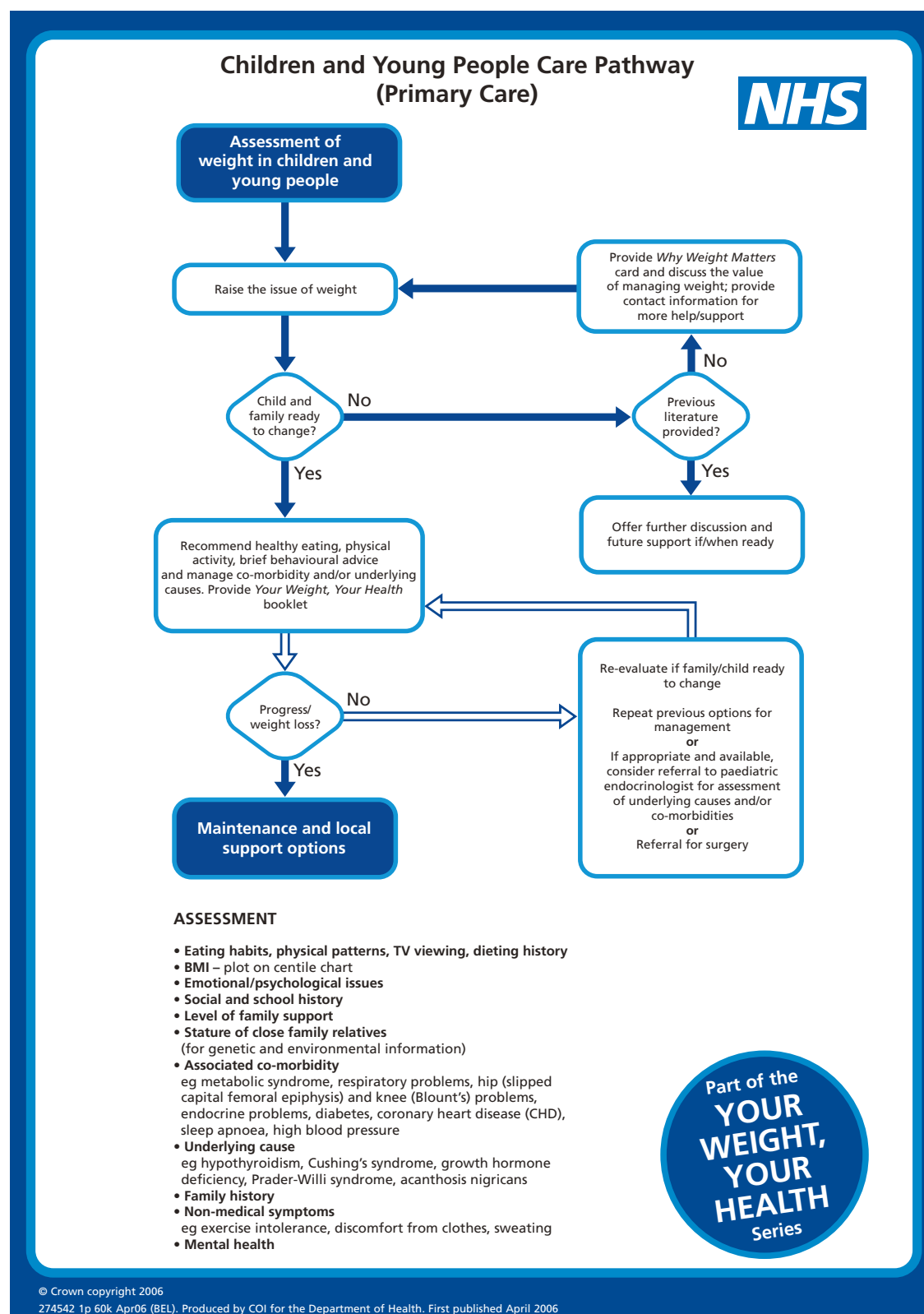
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Email: dh@prolog.uk.com
Tel: 0300 123 1002
Fax: 01623 724 524
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Adult care pathway

Laminated poster²⁰⁵ – available from Department of Health Publications (see page 198)

Children and young people care pathway

Laminated poster²⁰⁶ – available from Department of Health Publications (see page 198)





TOOL E2 Early identification of patients

TOOL
E2

For:	All healthcare professionals who are particularly in contact with children and pregnant women – midwives, health visitors, GPs, obstetricians, paediatricians, and so on
About:	This tool provides information on ways to identify those patients – particularly children and pregnant women – who are most at risk of becoming obese later in life and who are in most need of assistance, before formal assessments of overweight are made. Healthcare professionals will need to consult the Child Health Promotion Programme (CHPP) publication ¹⁵¹ for more detailed information, particularly about the CHPP schedule.
Purpose:	To provide background information on how healthcare professionals can identify patients most at risk of becoming obese later in life.
Use:	To be used to identify patients most at risk of becoming obese later in life.
Resource:	The information is reproduced from <i>The Child Health Promotion Programme: Pregnancy and the first five years of life</i> . ¹⁵¹ Please see the <i>CHPP schedule</i> as it sets out both the core universal programme to be commissioned and provided for all families, and additional preventive elements that the evidence suggests may improve outcomes for children with medium and high risk factors. Go to www.dh.gov.uk to download the document.

Assessment: Key points

Patients need a skilled assessment so that any assistance can be personalised to their needs and choices. Any system of early identification has to be able to:

- identify the risk factors that make some children more likely to experience poorer outcomes in later childhood, including family and environmental factors
- include protective factors as well as risks
- be acceptable to both parents
- promote engagement in services and be non-stigmatising
- be linked to effective interventions
- capture the changes that take place in the lives of children and families
- include parental and child risks and protective factors, and
- identify safeguarding risks for the child.

Social and psychological indicators

At-risk indicators: Children

Generic indicators can be used to identify children who are at risk of poor educational and social outcomes (for example, those with parents with few or no qualifications, poor employment prospects or mental health problems). Neighbourhoods also affect outcomes for children. Families subject to a higher-than-average risk of experiencing multiple problems include:

- families living in social housing
- families with a young mother or young father
- families where the mother's main language is not English

- families where the parents are not co-resident, and
- families where one or both parents grew up in care.

At-risk indicators: Pregnant women

It can be difficult to identify risks early in pregnancy, especially in first pregnancies, as often little is known about the experience and abilities of the parents, and the characteristics of the child.

Useful predictors during pregnancy include:

- young parenthood, which is linked to poor socioeconomic and educational circumstances
- educational problems – parents with few or no qualifications, non-attendance or learning difficulties
- parents who are not in education, employment or training
- families who are living in poverty
- families who are living in unsatisfactory accommodation
- parents with mental health problems
- unstable partner relationships
- intimate partner abuse
- parents with a history of anti-social or offending behaviour
- families with low social capital
- ambivalence about becoming a parent
- stress in pregnancy
- low self-esteem or low self-reliance, and
- a history of abuse, mental illness or alcoholism in the mother's own family.

Obesity-specific indicators

There are specific risk factors and protective factors for obesity. For example, a child is at a greater risk of becoming obese if one or both of their parents is obese.

Key point

Some of the indicators listed are more difficult to identify than others. Health professionals need to be skilled at establishing a trusting relationship with families and be able to build a holistic view.



TOOL E3 Measurement and assessment of overweight and obesity – ADULTS

TOOL
E3

For:	All healthcare professionals measuring and assessing overweight and obese children
About:	This tool contains detailed information on the measurement and assessment of overweight and obesity in adults. It provides details on how to measure overweight and obesity using Body Mass Index (BMI); how to measure waist circumference; how to assess overweight and obesity using BMI and waist circumference; how to assess the risks from overweight and obesity; and how to assess overweight and obesity using the height and weight chart. It provides specific details on Asian populations and brief details on the waist-hip ratio. This tool is consistent with NICE guidance and Department of Health recommendations.
Purpose:	To provide an understanding of how adults are measured and assessed.
Use:	To be used as background information when in consultation with an overweight or obese patient.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Measuring childhood obesity. Guidance to primary care trusts.</i> ²⁰⁷ www.dh.gov.uk

Measuring overweight and obesity using Body Mass Index

Adults

The National Institute for Health and Clinical Excellence (NICE) recommends that overweight and obesity are assessed using Body Mass Index (BMI).⁶ It is used because, for most people, BMI correlates with their proportion of body fat.

BMI is defined as the person's weight in kilograms divided by the square of their height in metres (kg/m²). For example, to calculate the BMI of a person who weighs 95kg and is 180cm tall:

$$\text{BMI} = \frac{95}{(1.80 \times 1.80)} = \frac{95}{3.24} = 29.32\text{kg/m}^2$$

Thus their BMI would be approximately 29kg/m².

NICE classifies 'overweight' as a BMI of 25 to 29.9kg/m² and 'obesity' as a BMI of 30kg/m² or more.⁶ This classification accords with that recommended by the World Health Organization (WHO).²¹ Further classifications linked with morbidity are shown on the next page. These cut-off points are based on epidemiological evidence of the link between mortality and BMI in adults.²¹

Classification of overweight and obesity among adults

Classification	BMI (kg/m ²)	Risk of co-morbidities*
Underweight	Less than 18.5	Low (but risk of other clinical problems increased)
Healthy weight	18.5–24.9	Average
Overweight (or pre-obese)	25–29.9	Increased
Obesity, class I	30–34.9	Moderate
Obesity, class II	35–39.9	Severe
Obesity, class III (severely or morbidly obese)	40 or more	Very severe

Note: NICE recommends that the BMI measurement should be interpreted with caution because it is not a direct measure of adiposity (amount of body fat).⁶

*Co-morbidities are the health risks associated with obesity, ie type 2 diabetes, hypertension (high blood pressure), stroke, coronary heart disease, cancer, osteoarthritis and dyslipidaemia (imbalance of fatty substances in the blood).

Source: National Institute for Health and Clinical Excellence, 2006,⁶ adapted from World Health Organization, 2000²¹

Adults of Asian origin

The concept of different cut-offs for different ethnic groups has been proposed by the WHO* because some ethnic groups have higher cardiovascular and metabolic risks at lower BMIs. This may be because of differences in body shape and fat distribution. Asian populations, in particular, have a higher proportion of body fat compared with people of the same age, gender and BMI in the general UK population. Thus, the proportion of Asian people with a high risk of type 2 diabetes and cardiovascular disease is substantial even at BMIs lower than the existing WHO cut-off point for overweight.

However, levels of morbidity vary between different Asian populations and for this reason it is difficult to identify one clear BMI cut-off point.²⁰⁹ Thus in the absence of worldwide agreement, NICE recommends that the current universal cut-off points for the general adult population (see table above) be retained for **all** population groups.⁶ This is in agreement with the WHO expert consultation group which also recommends trigger points for public health action for adults of Asian origin – 23kg/m² for increased risk and 27.5kg/m² for high risk.²¹⁰ NICE has recommended that healthcare professionals should use clinical judgement when considering risk factors in Asian population groups, even in people not classified as overweight or obese using the current BMI classification.⁶ This approach is supported by the Department of Health and the Food Standards Agency.

Using the BMI measurement in isolation

Although BMI is an acceptable approximation of total body fat at the population level and can be used to estimate the relative risk of disease in most people, it is not always an accurate predictor of body fat or fat distribution, particularly in muscular individuals, because of differences in body-fat proportions and distribution. Some other population groups, such as Asians and older people, have co-morbidity risk factors that would be of concern at different BMIs (lower for Asian adults as detailed above and higher for older people). Therefore, NICE recommends that waist circumference should be used in addition to BMI to measure central obesity and disease risk in individuals with a BMI less than 35kg/m².⁶ (See *Measuring BMI and waist circumference in adults to assess health risks* on page 206.)

* The proposed cut-offs are 18.5-22.9kg/m² (healthy weight), 23kg/m² or more (overweight), 23-24.9kg/m² (at risk), 25-29.9kg/m² (obesity I), 30kg/m² or more (obesity II).²⁰⁸

Measuring waist circumference

Adults

Waist circumference has been shown to be positively, although not perfectly, correlated to disease risk, and is the most practical measurement to assess a patient's abdominal fat content or 'central' fat distribution.¹²⁵ Central obesity is linked to a higher risk of type 2 diabetes and coronary heart disease.

NICE recommends that waist circumference can be used, in addition to BMI, to assess risk in adults with a BMI of less than 35kg/m².⁶ However, where BMI is greater than 35kg/m², waist circumference adds little to the absolute measure of risk provided by BMI.^{6, 126} This is because patients who have a BMI of 35kg/m² will exceed the waist circumference cut-off points (detailed below) used to identify people at risk of the metabolic syndrome.¹²⁵

Waist circumference thresholds used to assess health risks in the general population

At increased risk	Male	Female
Increased risk	94cm (37 inches) or more	80cm (31 inches) or more
Greatly increased risk	102cm (40 inches) or more	88cm (35 inches) or more

Source: National Institute for Health and Clinical Excellence, 2006,⁶ International Diabetes Federation (2005),²¹⁰ WHO/IASO/ITF (2000),²⁰⁸ World Health Organization (2000)²¹

Adults of Asian origin

Different waist circumference cut-offs for different ethnic groups have been proposed by the World Health Organization²⁰⁸ and the International Diabetes Federation.²¹⁰ * This is because ethnic populations have higher cardiovascular risk factors at lower waist circumferences than Western populations.²¹¹ For example, in South Asians (of Pakistani, Bangladeshi and Indian origin) living in England, a given waist circumference tends to be associated with more features of the metabolic syndrome than in Europeans.⁶

However, a unique threshold for all Asian populations may not be appropriate because different Asian populations differ in the level of risk associated with a particular waist circumference. For example, a study evaluating the average waist circumference of more than 30,000 individuals from East Asia (China, Hong Kong, Korea, and Taiwan), South Asia (India and Pakistan) and South-east Asia (Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) found that there were major differences between regions. Thus, the researchers concluded that the impact of obesity may begin at different thresholds in different Asian populations.²¹²

Because a globally applicable grading system of waist circumference for ethnic populations has not yet been developed, NICE does not recommend separate waist circumference cut-offs for different ethnic groups in the UK.⁶

Using the waist circumference measurement in isolation

Waist circumference should never be used in isolation, as a proportion of subjects who require weight management may not be identified.¹²⁶ Thus NICE recommends the use of the table on the next page to assess the level of weight management required.⁶

* The International Diabetes Federation (IDF) and the World Health Organization have proposed separate waist circumference thresholds for adults of Asian origin of 90cm (35 inches) or more for men, and 80cm (31 inches) or more for women. Note that the IDF definition is for South Asians and Chinese populations only.^{21, 208, 210}

NICE states that: “The level of intervention should be higher for patients with comorbidities, regardless of their waist circumference.”⁶

Assessing the level of weight management: a guide

BMI classification	Waist circumference			Co-morbidities 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

Source: National Institute for Health and Clinical Excellence, 2006⁶

Measuring BMI and waist circumference in adults to assess health risks

The World Health Organization (WHO) has recommended that an individual's relative health risk could be more accurately classified using both BMI and waist circumference.²¹ This is shown below for the general adult population.

Combining BMI and waist measurement to assess obesity and the risk of type 2 diabetes and cardiovascular disease – general adult population^{21, 6, 126}

Classification	BMI (kg/m ²)	Waist circumference and risk of co-morbidities	
		Men: 94–102cm	Men: More than 102cm
		Women: 80-88cm	Women: More than 88cm
Underweight	Less than 18.5	–	–
Healthy weight	18.5–24.9	–	Increased
Overweight (or pre-obese)	25–29.9	Increased	High
Obesity	30 or more	High	Very high

Source: National Institute for Health and Clinical Excellence, 2006⁶

Measuring waist-hip ratio

Adults

Waist-hip ratio is another measure of body fat distribution. The waist-hip measurement is defined as waist circumference divided by hip circumference, ie waist girth (in metres) divided by hip girth (in metres). Although there is no consensus about appropriate waist-hip ratio thresholds, a raised waist-hip ratio is commonly taken to be 1.0 or more in men, and 0.85 or more in women.^{6, 208} However, neither NICE nor the Department of Health recommends the use of waist-hip ratio as a standard measure of overweight or obesity.

Assessment

Assessment of overweight and obesity using BMI and waist circumference

Management should begin with the assessment of overweight and obesity in the patient. BMI should be used to classify the degree of obesity, and waist circumference may be used in people with a BMI less than 35kg/m² to determine the presence of central obesity. NICE recommends that the assessment of health risks associated with overweight and obesity in adults should be based on BMI and waist circumference as shown below.⁶

Assessing risks from overweight and obesity

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 94cm is low, 94–102cm is high and more than 102cm is very high. For women, waist circumference of less than 80cm is low, 80–88cm is high, and more than 88cm is very high.			

Source: National Institute for Health and Clinical Excellence, 2006 ⁶

Assessments also need to include holistic aspects focusing on psychological, social and environmental issues. There is a need for training for professionals who carry out assessments due to the sensitive and multifaceted nature of overweight and obesity. Professionals need to be aware of patients' motivations and expectations. Effective assessment and intervention require support, understanding and a non-judgemental approach.

Assessing and classifying overweight and obesity in adults

NICE recommends the following approach to assessing and classifying overweight and obesity in adults.

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height
- Use BMI to classify degree of obesity ... but use clinical judgement:
 - BMI may be less accurate in highly muscular people
 - for Asian adults, risk factors may be of concern at lower BMI
 - for older people, risk factors may become important at higher BMIs
- Use waist circumference in people with a BMI less than 35kg/m² to assess health risks
- Bioimpedance is not recommended as a substitute for BMI
- Tell the person their classification, and how this affects their risk of long-term health problems.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or 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 and 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.

Source: Reproduced from National Institute for Health and Clinical Excellence, 2006⁶

Assessment of overweight and obesity using the height and weight chart

The height and weight chart shown on the next page can be used as a crude assessment of overweight and obesity. To use the chart follow the simple instructions at the top of the chart.



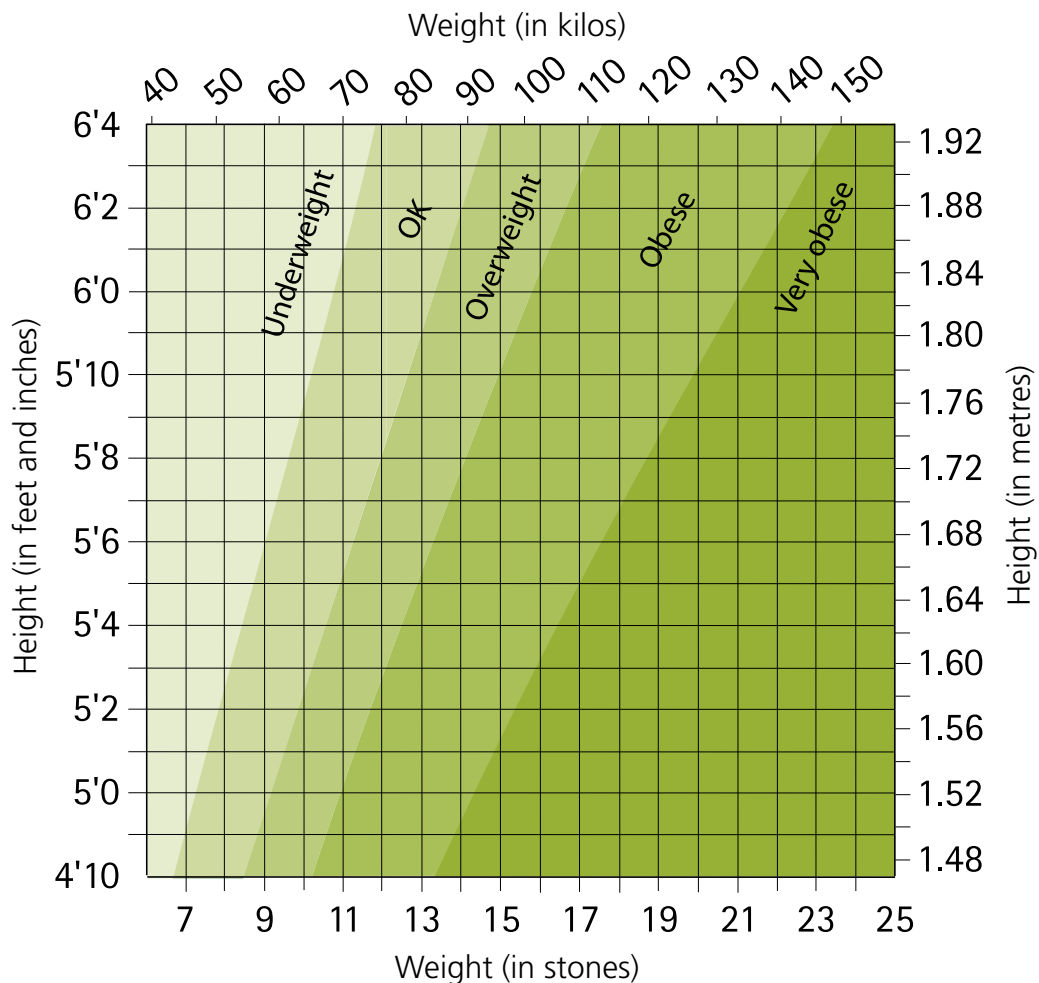
Tool E1 provides further information on NICE and Department of Health guidance for assessing and managing overweight and obesity in a clinical setting.

Note:

The NHS Local Delivery Plan monitoring line on adult obesity status requires general practices to monitor and return data on the obesity status (BMI) of GP-registered adults within the past 15 months.

Height and weight chart

Take a straight line across from the person's height (without shoes), and a line up or down from their weight (without clothes). Put a mark where the two lines meet to find out if the person needs to lose weight.



Underweight (BMI less than 18.5kg/m²)

A more calorie-dense diet may be needed to maintain current activity levels. In cases of very low weight for height, medical advice should be considered.

OK (BMI 18.5 – 24.9kg/m²)

This is the optimal, desirable or 'normal' range. Calorie intake is appropriate for current activity levels.

Overweight (BMI 25 – 29.9kg/m²)

Some loss of weight might be beneficial to health.

Obese (BMI 30 – 39.9kg/m²)

There is an increased risk of ill health and a need to lose weight. Regular health checks are required.

Very obese (BMI 40kg/m² or above)

This is severe or 'morbid' obesity. There is a greatly increased risk of developing complications of obesity and an urgent need to lose weight. Specialist advice should be sought.



TOOL E4 Measurement and assessment of overweight and obesity – CHILDREN

TOOL
E4

For:	All healthcare professionals measuring and assessing overweight and obese children
About:	This tool contains detailed information on the measurement and assessment of overweight and obesity in children. It provides information on how to measure overweight and obesity using Body Mass Index (BMI) and growth reference charts; provides information on measuring waist circumference; and provides details on how to assess overweight and obesity in children. BMI charts are provided at the end of this tool for girls and boys. This tool is consistent with NICE guidance and also Department of Health recommendations.
Purpose:	To provide an understanding of how children are measured and assessed.
Use:	To be used as background information when in consultation with an overweight or obese child.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Measuring childhood obesity. Guidance to primary care trusts.</i> ²⁰⁷ www.dh.gov.uk

Measuring overweight and obesity using Body Mass Index

The National Institute for Health and Clinical Excellence (NICE) recommends that BMI (adjusted for age and gender) should be used as a practical estimate of overweight in children and young people. The BMI measurement in children and young people should be related to the UK 1990 BMI growth reference charts to give age- and gender-specific information. Pragmatic indicators for action have been recommended as the 91st centile for overweight, and the 98th centile for obesity.⁶ (For reference charts, see pages 215 and 216.)

BMI is calculated by dividing an individual's weight in kilograms by the square of their height in metres (kg/m²).

There is widespread international support for the use of BMI to define obesity in children,^{3, 23, 120} even though there is no universally accepted BMI-based classification system for childhood obesity. This is because for children and young people, BMI is not a static measurement, but varies from birth to adulthood, and is different between boys and girls. Interpretation of BMI values in children and young people therefore depends on comparisons with population reference data, using cut-off points in the BMI distribution (BMI percentiles).³

Different growth reference charts can be used to assess the degree of overweight or obesity of a child. These are calculated to allow for age, sex and height. NICE has recommended that the BMI measurement in children and young people should be related to the UK 1990 BMI growth reference charts⁴ to give age- and gender-specific information.⁶ The Growth Reference Review Group, a working group convened by the Royal College of Paediatrics and Child Health (RCPCH), has also recommended that for children under the age of 2 years, the UK 1990 reference charts²¹³ are the only suitable charts for weight, length and head circumference. It also recommended that

the UK 1990 BMI reference is the only suitable reference for assessing weight relative to height.²¹⁴ However, the Australian NHMRC guidelines for children highlighted several difficulties with the BMI-for-age percentile cut-offs:

- Data are derived from a reference population.
- Classifying a child as overweight or obese on the basis of BMI being above a certain percentile is an arbitrary decision and is not based on known medical or health risk.¹²⁷

These difficulties have resulted in different BMI centiles being used. For example, the NHMRC guidelines have recommended that a BMI above the 95th percentile is indicative of obesity and a BMI above the 85th percentile is indicative of overweight.¹²⁷ However, the SIGN guidelines have recommended that a BMI at the 98th percentile or over is indicative of obesity (on the UK 1990 reference charts for BMI centiles for children²¹³), and a BMI at the 91st percentile is indicative of overweight.²³ The Department of Health has also recommended that the 98th and 91st centiles of the UK 1990 reference chart for age and sex be used to define obesity and overweight, respectively.¹²⁰ This is because when using the BMI of more than the 91st centile on the UK 1990 charts, sensitivity is moderately high (it diagnoses few obese children as lean) and specificity is high (it diagnoses few lean children as obese) which is paramount for routine clinical use.^{23, 215}

Note: NICE recommendation for specific cut-offs for overweight and obesity – NICE 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).⁶

See pages 215 and 216 for centile BMI charts for boys and girls.

Use of growth reference charts in clinical settings

The growth reference or BMI charts are used in two broad clinical settings: for the assessment and monitoring of individual children, and for screening whole populations.²¹⁴

Assessing and monitoring individual children

- BMI reference curves for the UK, 1990²¹³ – NICE recommends that the 91st centile (overweight) and the 98th centile (obese) of the 1990 UK reference chart be used for assessing and monitoring individual children.⁶ The Department of Health and SIGN make the same recommendation.^{23, 120}

Screening whole populations

- *UK National BMI Percentile Classification*²¹³ – The majority of published epidemiological work has used a definition of obesity as a BMI of more than the 95th centile, and overweight as a BMI of more than the 85th centile of the UK 1990 reference chart for age and sex.²³ SIGN has recommended that, for comparative epidemiological purposes, it is important to retain this definition.

- *International Classification* – An alternative method for measuring childhood obesity is the International Obesity Task Force (IOTF) international classification²¹⁶ using data collected from six countries (UK, Brazil, Hong Kong, the Netherlands, Singapore and the United States) of a total of 190,000 subjects aged from 0 to 25 years. This classification links childhood and adult obesity/overweight standards using evidence of clear associations between the adult BMI cut-off values of 25kg/m² and 30kg/m² and health risk. However, it has been reported that the international cut-offs exaggerate the differences in overweight and obesity prevalence between boys and girls by underestimating prevalence in boys. Other possible limitations include concerns about sensitivity (the ability to identify all obese children as obese), the limited sample size of the reference population and the lack of BMI cut-off points for underweight.²¹⁷

Measuring waist circumference

Until recently, waist circumference in children had not been regarded as being an important measure of fatness. Although the health risks associated with an excessive abdominal fat distribution in children in comparison with adults remain unclear, mounting evidence suggests that this is an important measurement. For example, data from the Bogalusa Heart Study showed that an abdominal fat distribution (indicated by waist circumference) in children aged between 5 and 17 years was associated with adverse concentrations of triglyceride, LDL cholesterol, HDL cholesterol and insulin.²¹⁸ The first set of working waist circumference percentiles was produced using data collected from British children.²¹⁹ Although there is no consensus about how to define obesity among children using waist measurement, for clinical use the 99.6th or 98th centiles are the suggested cut-offs for obesity and the 91st centile is the cut-off for overweight.²¹⁹

NICE⁶ and the Department of Health¹²⁰ do not currently recommend using waist circumference as a means of diagnosing childhood obesity as there is no clear threshold for waist circumference associated with morbidity outcome in children and young people.^{127, 207} Thus, NICE recommends that waist circumference is not used as a routine measurement in children and young people, but may be used to give additional information on the risk of developing other long-term health problems.

Assessment

NICE recommends that assessment should begin by measuring BMI and relating it to the UK 1990 BMI charts to give age- and gender-specific information.⁶ See charts on pages 215 and 216.

It recommends the approach to assessing and classifying overweight and obesity in children shown in the box on the next page.

Assessment and classification of overweight and obesity in children

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height.
- Use BMI; relate to UK 1990 BMI charts to give age- and gender-specific information.
- Do not use waist circumference routinely; however, it can give information on risk of long-term health problems.
- Discuss with the child and family.

Consider intervention or assessment

- Consider tailored clinical intervention if BMI at 91st centile or above.
- Consider assessing for comorbidities if BMI at 98th centile or above.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or obesity
- willingness and motivation to change
- comorbidities (such as hypertension, hyperinsulinaemia, dyslipidaemia, type 2 diabetes, psychosocial dysfunction and exacerbation of 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.

Source: Reproduced from National Institute for Health and Clinical Excellence, 2006⁶

The Department of Health,¹²⁰ the Royal College of Paediatrics and Child Health (RCPCH) and the National Obesity Forum (NOF)¹²² provide similar recommendations for assessing childhood overweight and obesity.



Tool E1 provides further information on NICE and Department of Health guidance for assessing and managing overweight and obesity in a clinical setting.

Recording of children's data

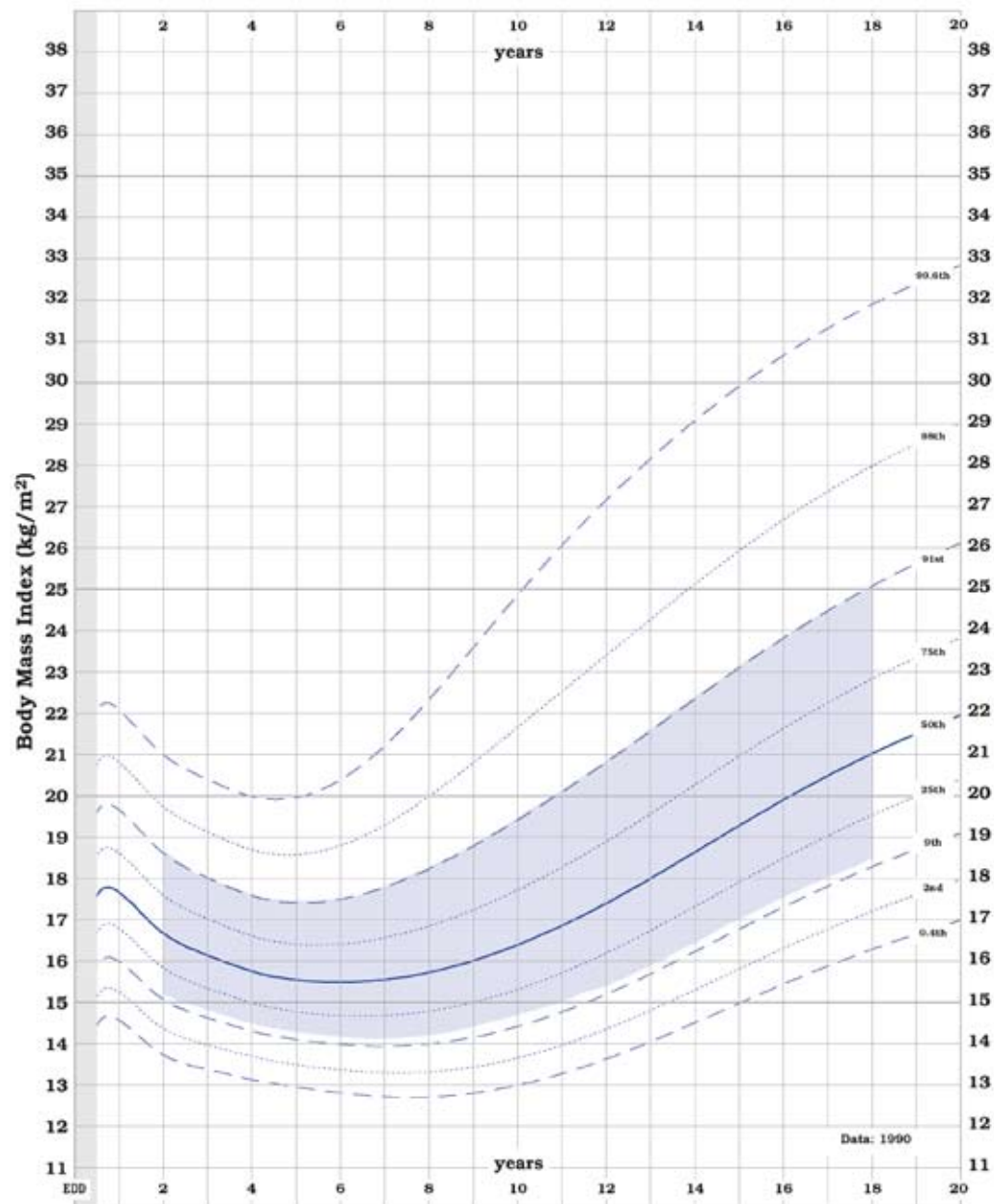
The Department of Health and the Department for Children, Schools and Families have developed guidance for PCTs and schools on how to measure the height and weight of children.^{139, 140} All children in Reception (4-5 year olds) and Year 6 (10-11 year olds) should be measured on an annual basis as part of the National Child Measurement Programme (NCMP). The guidance is available at www.dh.gov.uk/healthyliving



See also **Tool E9** for more information about the NCMP.

Centile BMI charts – CHILDREN

Boys BMI chart – Identification^{213, 216}

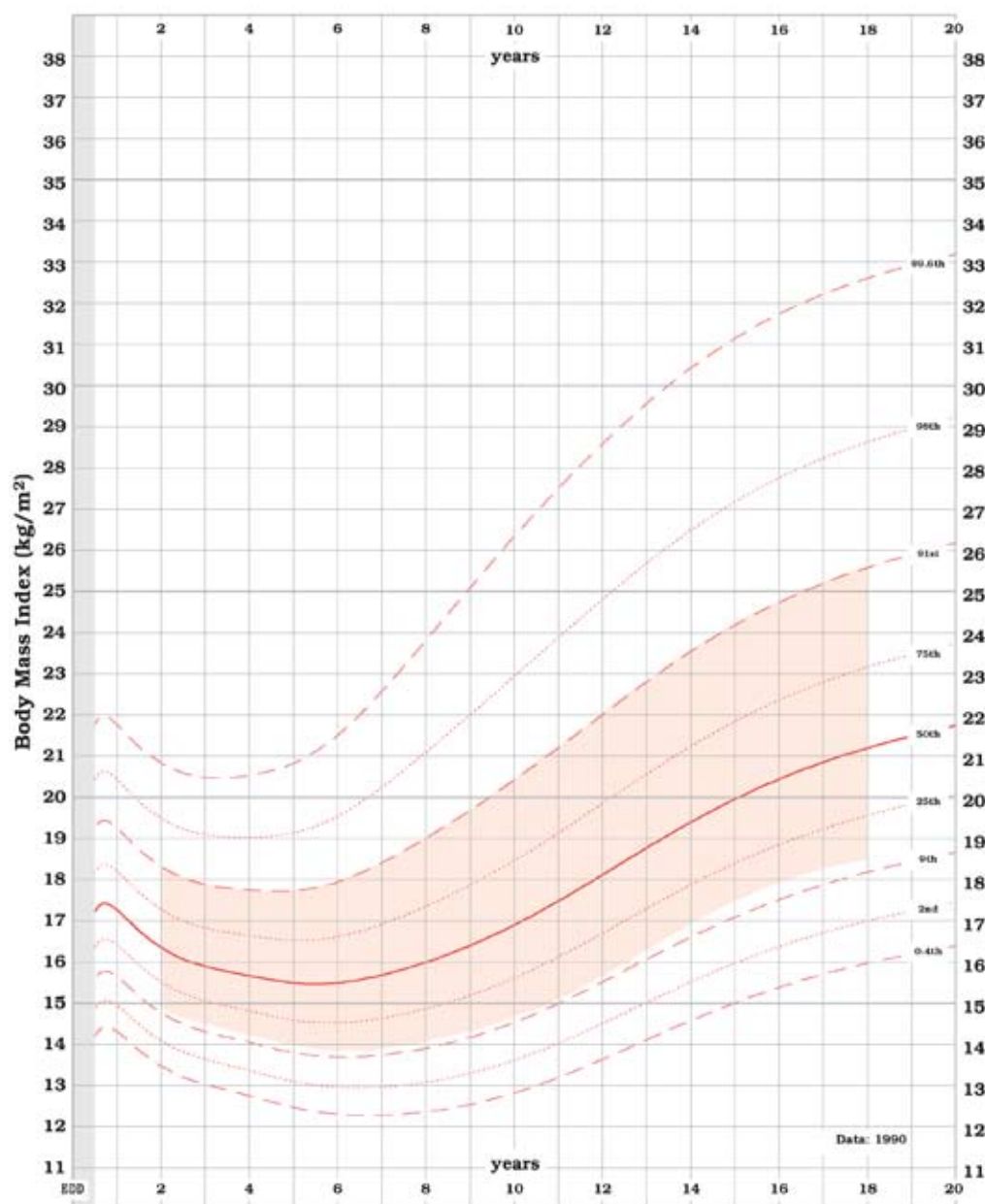


Note: This chart is based on the UK population, **not** the IOTF populations.

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Girls BMI chart – Identification^{213, 216}

Note: This chart is based on the UK population, **not** the IOTF populations.

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TOOL E5 Raising the issue of weight – Department of Health advice

TOOL
E5

For:	Healthcare professionals, particularly in primary care
About:	This tool contains guidance for health professionals on raising the issue of weight with patients, produced by the Department of Health.
Purpose:	To provide guidance on how healthcare professionals can raise the issue of weight with patients.
Use:	To be used as a concise and handy tool when in consultation with an overweight or obese patient.
Resource:	These items are contained in a Department of Health publication called <i>Care pathway for the management of overweight and obesity</i>¹²⁰ (see Tool E1). They are also available as separate laminated posters. To access these materials, visit www.dh.gov.uk or order copies from: DH Publications Orderline PO Box 777 London SE1 6XH Email: dh@prolog.uk.com Tel: 0300 123 1002 Fax: 01623 724 524 Minicom: 0300 123 1003 (8am to 6pm, Monday to Friday)

Adults

Laminated card²²⁰ – available from Department of Health Publications (see page 217)

Raising the Issue of Weight in Adults

1 RAISE THE ISSUE OF WEIGHT

If BMI is ≥ 25 and there are no contraindications to raising the issue of weight, initiate a dialogue: 'We have your weight and height measurements here. We can look at whether you are overweight. Can we have a chat about this?'

2 IS THE PATIENT OVERWEIGHT/OBESE?

BMI (kg/m ²)	Weight classification
<18.5	Underweight
18.5–24.9	Healthy weight
≥ 25 –29.9	Overweight
≥ 30	Obese

Using the patient's current weight and height measurements, plot their BMI with them and use this to tell them what category of weight status they are.

'We use a measure called BMI to assess whether people are the right weight for their height. Using your measurements, we can see that your BMI is in the [overweight or obese] category [show the patient where they lie on a BMI chart]. When weight goes into the [overweight or obese] category, this can seriously affect your health.'

WAIST CIRCUMFERENCE	
Increased disease risk	
Men	Women
≥ 40 inches (≥ 102 cm)	≥ 35 inches (≥ 88 cm)
Asian men	Asian women
≥ 90 cm	≥ 80 cm

Waist circumference can be used in cases where BMI, in isolation, may be inappropriate (eg in some ethnic groups) and to give feedback on central adiposity. In Asians, it is estimated that there is increased disease risk at ≥ 90 cm for males and ≥ 80 cm for females.

Measure midway between the lowest rib and the top of the right iliac crest. The tape measure should sit snugly around the waist but not compress the skin.

3 EXPLAIN WHY EXCESS WEIGHT COULD BE A PROBLEM

If patient has a BMI ≥ 25 and obesity-related condition(s):

'Your weight is likely to be affecting your [co-morbidity/condition]. The extra weight is also putting you at greater risk of diabetes, heart disease and cancer.'

If patient has BMI ≥ 30 and no co-morbidities:

'Your weight is likely to affect your health in the future. You will be at greater risk of developing diabetes, heart disease and cancer.'

If patient has BMI ≥ 25 and no co-morbidities:

'Any increase in weight is likely to affect your health in the future.'

4 EXPLAIN THAT FURTHER WEIGHT GAIN IS UNDESIRABLE

'It will be good for your health if you do not put on any more weight. Gaining more weight will put your health at greater risk.'

5 MAKE PATIENT AWARE OF THE BENEFITS OF MODEST WEIGHT/WAIST LOSS

'Losing 5–10% of weight [calculate this for the patient in kilos or pounds] at a rate of around 1–2lb (0.5–1kg) per week should improve your health. This could be your initial goal.'

If patient has co-morbidities:

'Losing weight will also improve your [co-morbidity].'

Note that reductions in waist circumference can lower disease risk. This may be a more sensitive measure of lifestyle change than BMI.

6 AGREE NEXT STEPS

Provide patient literature and:

- If **overweight without co-morbidities**: agree to monitor weight.
- If **obese or overweight with co-morbidities**: arrange follow-up consultation.
- If **severely obese with co-morbidities**: consider referral to secondary care.
- If **patient is not ready to lose weight**: agree to raise the issue again (eg in six months).

BACKGROUND INFORMATION

Raising the issue of weight

Many people are unaware of the extent of their weight problem. Around 30% of men and 10% of women who are overweight believe themselves to be a healthy weight.¹ There is evidence that people become more motivated to lose weight if advised to do so by a health professional.²

Health consequences of excess weight

The table below summarises the health risks of being overweight or obese.³ In addition, obesity is estimated to reduce life expectancy by between 3 and 14 years. Many patients will be unaware of the impact of weight on health.

Greatly increased risk

- type 2 diabetes
- gall bladder disease
- dyslipidaemia
- insulin resistance
- breathlessness
- sleep apnoea

Moderately increased risk

- cardiovascular disease
- hypertension
- osteoarthritis (knees)
- hyperuricaemia and gout

Slightly increased risk

- some cancers (colon, prostate, post-menopausal breast and endometrial)
- reproductive hormone abnormalities
- polycystic ovary syndrome
- impaired fertility
- low back pain
- anaesthetic complications

Benefits of modest weight loss⁴

Patients may be unaware that a small amount of weight loss can improve their health.

Condition	Health benefits of modest (10%) weight loss
Mortality	• 20–25% fall in overall mortality • 30–40% fall in diabetes-related deaths • 40–50% fall in obesity-related cancer deaths
Diabetes	• up to a 50% fall in fasting blood glucose • over 50% reduction in risk of developing diabetes
Lipids	• 10% fall in total cholesterol, 15% in LDL, and 30% in TG, 8% increase in HDL
Blood pressure	• 10 mmHg fall in diastolic and systolic pressures

Realistic goals for modest weight/waist loss (adapted from Australian guidelines)⁵

Duration	Weight change	Waist circumference change
Short term	2–4kg a month	1–2cm a month
Medium term	5–10% of initial weight	5% after six weeks
Long term	10–20% of initial weight	aim to be <88cm (females) aim to be <102cm (males)

Patients may have unrealistic weight loss goals.

The need to offer support for behaviour change

The success of smoking cessation interventions shows that, in addition to raising a health issue, health professionals need to offer practical advice and support. Rollnick et al suggest some ways to do this within the primary care setting. Providing a list of available options in the local area may also be helpful.⁶

Importance of continued monitoring of weight

Weight monitoring can be a helpful way of maintaining motivation to lose weight. Patients should be encouraged to monitor their weight regularly.⁷ Interventions for smoking cessation have found that behaviour change is more successful when follow-ups are included in the programme.⁸

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Produced by CDI for the Department of Health. First published April 2006

¹Wardle J and Johnson F (2002) Weight and dieting: examining levels of weight concern in British adults. *Int J Obes* 26: 1144–9.

²Galuska DA et al (1999) Are health care professionals advising obese patients to lose weight? *JAMA* 282: 1576–8.

³Jebb S and Steer T (2003) Tackling the Weight of the Nation. Medical Research Council.

⁴Department of Health (2002) Prodigy Guidance on Obesity. Crown Copyright.

⁵NHMRC (2003) Clinical practice guidelines for the management of overweight and obesity in adults. Commonwealth of Australia.

⁶Rollnick S et al (2005) Consultations about changing behaviour. *BMJ* 331: 961–3.

⁷O'Neill PM and Brown JD (2005) Weighing the evidence: Benefits of regular weight monitoring for weight control. *J Nutr Educ Behav* 37: 319–22.

⁸Lancaster T and Stead LF (2004) Physician advice for smoking cessation. Cochrane Database of Systematic Reviews, 4.



Raising the Issue of Weight in Children and Young People

1 WHEN TO INITIATE A DISCUSSION ABOUT WEIGHT

- If the family expresses concern about the child's weight.
- If the child has weight-related co-morbidities.
- If the child is visibly overweight.

2 RAISE THE ISSUE OF OVERWEIGHT

Discuss the child's weight in a sensitive manner because parents may be unaware that their child is overweight. Use the term 'overweight' rather than 'obese'. Let the maturity of the child and the child's and parents' wishes determine the level of child involvement.

If a parent is concerned about the child's weight: 'We have [child's] measurements so we can see if he/she is overweight for his/her age.'

If the child is visibly overweight: 'I see more children nowadays who are a little overweight. Could we check [child's] weight?'

If the child presents with co-morbidities: 'Sometimes [co-morbidity] is related to weight. I think that we should check [child's] weight.'

3 ASSESS THE CHILD'S WEIGHT STATUS

Refer to UK Child Growth Charts and plot BMI centile. Explain BMI to parent: eg 'We use a measure called BMI to look at children's weight. Looking at [child's] measurements, his/her BMI does seem to be somewhat higher than we would like it to be.'

If the child's weight status is in dispute, consider plotting their BMI on the centile chart in front of them. In some cases this approach may be inappropriate and upsetting for the family.

Overweight	Severely overweight
BMI centile ≥85th centile	BMI centile ≥95th centile

4 ASSESS SERIOUSNESS OF OVERWEIGHT PROBLEM AND DISCUSS WITH PARENT

If child is severely overweight with co-morbidities, consider raising the possibility that their weight may affect their health now or in the future.

This could be left for follow-up discussions or raised without the child present as some parents may feel it is distressing for their child to hear.

'If their overweight continues into adult life, it could affect their health. Have either you [or child] been concerned about his/her weight?'

Consider discussing these points with the parent at follow-up:

- **Age and pubertal stage:** the older the child and the further advanced into puberty, the more likely overweight will persist into adulthood.
- **Parental weight status:** if parents are obese, child's overweight is more likely to persist into adulthood.
- **Co-morbidities:** (see overleaf) increase the seriousness of the weight problem

5 REASSURE THE PARENT/CHILD

If this is the first time that weight has been raised with the family, it is important to make the interaction as supportive as possible:

'Together, if you would like to, we can do something about your child's weight. By taking action now, we have the chance to improve [child's] health in the future.'

6 AGREE NEXT STEPS

Provide patient information literature, discuss as appropriate and:

- **If overweight and no immediate action necessary:** arrange follow-up appointment to monitor weight in three to six months: 'It might be useful for us to keep an eye on [child's] weight for the next year.'
- **If overweight and family want to take action:** offer appointment for discussion with GP, nurse or other health professional; arrange three-to-six-month follow-up to monitor weight.
- **If overweight and family do not wish to take action now:** monitor child's weight and raise again in six months to a year.
- **If overweight with co-morbidities:** consider referral to secondary care: 'It might be useful for you and [child] to talk to someone about it.'

BACKGROUND INFORMATION

Identifying the problem

Ascertaining a child's weight status is an important first step in childhood weight management.

Parents who do not recognise the weight status of their overweight children may be less likely to provide them with support to achieve a healthy weight. In a British survey of parental perception of their child's weight, the overwhelming majority (94%) of parents with overweight or obese children misclassified their child's weight status.¹ Given this low level of parental awareness, health professionals should take care to establish a child's weight status in a sensitive manner.

Assessing weight status in children

The child growth charts for the UK allow easy calculation of BMI based on a child's known weight and height.² Measures of body fat in children can also be a useful way of assessing a child's weight status. Details of body fat reference curves for children are now available,³ although, in practice, body fat cannot be assessed without the necessary equipment.

Assessing the severity of the problem

A number of factors are known to increase the risk of childhood obesity and the likelihood that a weight problem will persist into adult life. Considering these factors will help you to make an informed decision about the most appropriate mode of action.

- The older the child, the more likely it is that their weight problem will continue into later life and the less time they have to 'grow into' their excess weight.
- A child is 20–40% more likely to become obese if one parent is obese. The figure rises to around 80% if both parents are obese.
- While weight problems can lead to psychosocial issues such as depression and low self-esteem, weight loss may not necessarily resolve these problems, so don't rule out referral to CAMHS.

¹Carnell S et al (2005) Parental perceptions of overweight in 3–5 year olds. *Int J Obes* 29: 353–5.

²Cole T et al (2002) A chart to link child centiles of body mass index, weight and height. *Eur J Clin Nutr* 56: 1194–9.

³Jebb S et al (2004) New body fat reference curves for children. *Obes Rev* (NAASO Suppl) A156.

⁴McCallum Z and Gerner B (2005) Weighty matters: An approach to childhood overweight in general practice. *Aus Fam Phys* 34(9): 745–8.

⁵British Medical Association Board of Science (2005) *Preventing Childhood Obesity*. BMA.

Health risks of excess weight in childhood^{4,5}

Being obese in childhood or adolescence increases the risk of obesity in adult life. Childhood obesity will also increase the chances of developing chronic diseases typically associated with adult obesity:

- insulin resistance and type 2 diabetes;
- breathing problems such as sleep apnoea and asthma;
- psychosocial morbidity;
- impaired fertility;
- cardiovascular disease;
- dyslipidaemia;
- hypertension;
- some cancers;
- orthopaedic complications.

Importance of weight control

For many overweight children, prevention of further weight gain is the main goal because as long as they gain no more weight, they can 'grow into' their weight over time. This goal can be achieved through lifestyle changes:

- improving the diet, eg by increasing fruit and vegetable consumption, reducing fat intake and portion sizes, considering intake of sugary drinks, and planning meals;
 - increasing activity, eg playing football, walking the dog;
 - reducing sedentary behaviours such as time spent watching TV or playing computer games.
- If the child is more severely overweight, or has already reached adolescence, 'growing into' weight is more difficult and weight loss has to be considered.

Need to offer solutions

Unless the child is severely overweight with co-morbidities, be led by the parents' and/or child's wishes. Encourage action if appropriate. Health professionals should be ready to offer referral support so that they are seen as taking the issue seriously. If the child is very overweight and has co-morbidities, the child (and family) may require on-going support despite referrals, eg through continued weight monitoring, additional specialist referrals, or help with family-based lifestyle modification.

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TOOL E6 Raising the issue of weight – perceptions of overweight healthcare professionals and overweight people

TOOL
E6

For:	Healthcare professionals, particularly those who are overweight
About:	This tool provides the results of research undertaken to investigate the experiences and beliefs of overweight healthcare providers who provide weight management advice, and the views and perception of information of patients receiving weight-related information from overweight healthcare practitioners.
Purpose:	To provide an understanding of the perceptions of overweight healthcare professionals and overweight people.
Use:	Overweight healthcare professionals can use this tool to help them raise the issue of weight with overweight patients.
Resource:	<i>Overweight health professionals giving weight management advice: The perceptions of health professionals and overweight people²²²</i>

Like the population as a whole, some healthcare professionals are overweight or obese. Anecdotally, it is known that these health practitioners can find it difficult to give advice to overweight patients. Research was therefore commissioned to look at the attitudes of overweight healthcare professionals and overweight patients. The results are not conclusive and more research is required to provide overweight practitioners with guidance on how to raise the issue of weight with their patients, but the research contains some messages that are worth consideration by health professionals.

Perceptions of overweight healthcare professionals

Credibility and professionalism

- Overall, **most health professionals felt their expertise and empathetic manner were most important to their credibility**. Although some acknowledged that their weight may affect how their patients view them, many thought that being overweight or 'not skinny' would have a positive effect in building a relationship with overweight patients.
"I often discuss whether I can be taken credibly in my role (dietitian) given that I myself am obese."

"Despite being overweight as a practitioner you still have valid expert advice on weight management. However, patients may feel that it is not such valid advice if you cannot follow it yourself!"
- Interestingly, nearly all health professionals thought that overweight and particularly obese colleagues were less credible than they perceived themselves to be:
"The trainer was morbidly obese and although clearly technically competent, his physical appearance was distracting and caused me to question his validity as a trainer. There is no rational thought behind this perception, but clearly this has been instilled into my psyche by the continuous cultural and media-driven accepted norms."

- Some health professionals thought that being overweight – and particularly being obese – would hinder the credibility and professional reputation of a health professional.
“How can a health professional who does not value a healthy weight help other people?”

“I remember a dietitian who was very overweight and thinking, ‘How can she give advice?’”

Underplaying the significance of personal weight

Although all health professionals who participated in the research self-selected themselves as an ‘overweight health professional’ defined as having a BMI of over 25kg/m², and many reported weights and heights indicating a BMI well over 30kg/m², several viewed themselves or thought they were perceived as a healthy weight.

“..... although my BMI is 34, I don’t necessarily look that big because of my age and height; I’m just sturdy.”

Reflexivity

Interviewees found it difficult to answer a question about what effect their own weight might have on whether the subject of weight is discussed. This was not something they had thought of before:

“It’s not something I have really thought about until now.”

“It’s impossible to know if my weight has any effect. I mean, how would we ever know and how could you measure that?”

Perceived advantages of overweight health professionals

Health professionals thought that sharing personal experience of weight management helped them to be more empathetic and build rapport with their patients. As a result, some said they referred to their own weight or used personal examples of behaviour change.

“I can relate to them. I gained five stone in a year so normally I would not have had an issue with my weight and now I have a huge issue with my weight. I can say ‘I understand what you are going through.’”

Mentioning health professionals’ own weight during consultations

- Most health professionals (70%) said that they mentioned their own weight and lifestyle in consultations. This was often used to demonstrate strategies to change eating behaviour and increase physical activity. Those who mentioned their weight felt that it helped them to empathise with patients.

“I have found the patients I do mention it [weight] to are more likely to be open and honest with me.”

“A patient has said that they would much rather be seen by someone who wasn’t skinny so would have an understanding of how difficult it is.”

- A small proportion of the sample said they would not mention their own weight. Participants in this group were generally against the idea of using personal references in the consultations. A few referred to the notion of talking about their own weight as unprofessional and not patient-centred.

"No – I work in a patient-centred way and use the skill of immediacy to direct the conversation back to the person."

"No, I don't mention my weight as it's a patient-centred consultation."

- So they viewed reference to their own weight as shifting the focus away from being patient-centred to health-professional centred. This was a dominant theme among those who did not mention their weight.

Impact of health professionals' own weight on raising weight as an issue

Some health professionals said their own weight made it less likely or more difficult to discuss weight loss with patients:

"It does hinder me. How can I provide advice if I am clearly struggling to follow my own advice?"

"I do feel uncomfortable about discussing weight management because I am overweight. I think I may be more likely to discuss weight opportunistically if I was not overweight myself."

Perceptions of overweight healthcare professionals by overweight people

Value of advice from an overweight healthcare professional

Some people thought that seeing an overweight healthcare professional was helpful. The main benefits were thought to be greater empathy and insight from the healthcare professional and a feeling of trust:

"She was sensitive and understanding and very encouraging. She acknowledged her weight and said if it was easy to lose weight, she'd be a size zero! She was funny and I felt understood and not demeaned in any way."

Mentioning healthcare professionals' own weight

It was felt there was a need for overweight professionals to mention their own weight, particularly as it could be distracting otherwise. People also wanted to hear personal weight loss 'tips', yet this is likely to be problematic because it moves the discussion away from a patient-centred, evidence-based approach.

However, there were some problems associated with healthcare professionals who had lost weight, with them being:

"... like a reformed smoker."

"They hate fat and forget how hard it is."

Negative perceptions

- There was a strong reaction among overweight people that advice from an overweight health professional, particularly those who were not empathetic, was hypocritical and uninspiring, with respondents questioning the validity of the advice:

"They can only give text book advice and it's slightly hypocritical."

"They should practise what they preach."

"I was relieved to find an overweight doctor – I thought that she would understand the problems and how difficult it is to address the issues but ... she was very dismissive and quite patronising. I went into the surgery feeling low and came out feeling guilty and thought I was a total waste of her valuable time as I wasn't ill in the conventional sense. After that, I tended to avoid the doctor. Even though it was a few years ago now, it still affects the way I feel and act at the doctor's."

- Several participants raised the issue of the stigma around health professionals being overweight. This attitude demonstrates the crucial need for reflexivity in weight management practice. In some instances, health professionals who were overweight were perceived as more judgemental, with patients suggesting that health professionals take out their own weight issues on patients or that they are self-conscious about being overweight.
- There was some hostility towards overweight health professionals because of their weight, demonstrating how pervasive weight bias can be.



TOOL E7 Leaflets and booklets for patients

**TOOL
E7**

For:	All healthcare professionals in contact with patients, eg GPs, nurses, pharmacists, psychologists, dentists, health visitors
About:	This tool provides details of leaflets and booklets that have been produced for patients who are worried about being overweight or obese or who are overweight or obese. The leaflets provide details on healthy lifestyles, losing weight, treatment and maintaining a healthy weight.
Purpose:	To provide healthcare professionals with details of leaflets that can be ordered to offer to patients.
Use:	Healthcare professionals should order these leaflets for their workplace and make them available to patients who are either worried about excess weight or who are overweight or obese.
Resource:	www.nice.org.uk , www.dh.gov.uk , bhf.org.uk/publications

The leaflets and booklets for patients listed on the next page have been produced by the National Institute for Health and Clinical Excellence (NICE), the Department of Health and the British Heart Foundation.

How to order

NICE publications	Department of Health Publications	British Heart Foundation publications
Available from www.nice.org.uk	Visit www.dh.gov.uk or order a copy by contacting: DH Publications Orderline PO Box 777 London SE1 6XH Email: dh@prolog.uk.com Tel: 0300 123 1002 Fax: 01623 724 524 Minicom: 0300 123 1003 (8am to 6pm, Monday to Friday)	BHF Orderline: 0870 600 6566 email: orderline@bhf.org.uk , website: bhf.org.uk/publications

General lifestyle advice

From NICE

NICE has produced an information booklet for patients. (See page 225 for details of how to obtain copies.)

*Understanding NICE guidance – Preventing obesity and staying a healthy weight*²²³

This booklet is about the prevention of obesity and staying a healthy weight, for people in England and Wales. It explains the NICE guidance for health professionals, local authorities, schools, early years providers, employers and the public. It is written for people who want to know how to maintain a healthy weight, but it may also be useful for their families, carers or anyone else with an interest in obesity.

Advice for overweight and obese patients

From the Department of Health

The Department of Health has published a number of leaflets for patients who are overweight or obese. The leaflets provide advice on losing weight and the health risks associated with excess weight. (See page 225 for details of how to order copies.)

*Why weight matters*²²⁴

A leaflet for overweight patients who are not yet committed to losing weight. It discusses the risks associated with overweight, the benefits of modest weight loss, and practical tips for people to consider.

*Your weight, your health: How to take control of your weight*²²⁵

A booklet for overweight patients who are ready to think about losing weight.

*Healthy Weight, Healthy Lives: Why your child's weight matters*²²⁶

The leaflet provides information for parents about the National Child Measurement Programme (NCMP). It also includes practical tips on how to help children eat well and become more active, why maintaining a healthy weight is important, and steps that parents can take to help their family lead a healthy lifestyle.

From NICE

*Understanding NICE guidance – Treatment for people who are overweight or obese*²²⁷

This booklet is about the NHS care and treatment in England and Wales available for people who are overweight or obese. It explains the guidance from NICE. It is written for people who may need help with their weight problems but it may also be useful for their families or carers or anyone with an interest in obesity. (See page 225 for details of how to order copies.)

From the British Heart Foundation

*So you want to lose weight ... for good*²²⁸

This is a guide for men and women who would like to lose weight. It provides guidance on food portion sizes for weight loss. (See page 225 for details of how to order copies.)



TOOL E8 FAQs on childhood obesity

**TOOL
E8**

For:	Healthcare professionals, particularly in primary care
About:	This tool provides suggested responses to frequently asked questions regarding childhood obesity. It includes only a selected number of questions. For more information go to www.nhs.uk
Purpose:	To provide healthcare professionals with a concise and handy tool that they can use to answer queries about childhood obesity.
Use:	To be used as a quick method of answering queries from parents/patients worried about their child being overweight or obese.
Resource:	NHS Choices website www.nhs.uk

Recognising obesity

Why have I been told my child is overweight/obese? My child does not look overweight or obese.

Today, many more of us – adults and children – are above the weight that we should be to remain healthy and happy. There are many reasons for this. However, one result of the fact that we as a society are getting larger is that we have lost sight of what a healthy weight actually *looks* like, because we are now used to seeing larger people and we compare ourselves and our children to others around us.

Another result of us getting larger is that there has been a great deal of media attention relating to obesity which has tended to focus on some of the most extreme cases of obesity in the world, rather than the ‘everyday’ weight problems that we and our children are facing, and this has distorted our thinking.

Because of the above, it is sometimes difficult for us to recognise weight concerns, particularly in our own children. However, weight can become a huge problem for children in terms of their physical and emotional health. If your child is overweight or obese, the best thing to do for them is to be open to the fact that they will need your support in changing behaviour to achieve a healthy weight now and for their future.

Causes of childhood obesity

Are genes the main cause of obesity?

No. Some people may have a genetic predisposition towards obesity, but the reality is that many, many more of us are overweight or obese than used to be the case – and our genes haven’t changed. Even those who do have a genetic predisposition to obesity will not definitely become and remain overweight or obese. We should never give up trying to adopt and maintain the lifestyles that will help us and our children achieve a healthy weight.

Why are some children obese or overweight?

At its simplest level, children (and adults) can become overweight or obese because, over a period of time, they move about too little and eat too much. Eating ‘too much’ can mean having portions that are too big, snacking too much, or having too much of the food (and drink) that is

high in calories. As a society, many of us are eating more than we should. High-energy food is readily available. Most of us are also far less active than we used to be – we tend to drive everywhere rather than walk, and stay inside more. Because of this, lots and lots of us – adults and children – are now overweight or obese. Maintaining a healthy weight is a lot harder than it used to be.

Weight problems can begin at a very early age and it is important that we don't ignore this, as this is just storing up health problems for the future. Children with weight problems can develop very low self-esteem and become depressed. One research study showed that the quality of life of young children who were obese was similar to that of children living with cancer. We need to be doing everything we can to stop children developing weight problems in the first place, and helping them adopt healthier lifestyles to reduce their weight if they do become overweight.

Tackling childhood obesity

What can I do to help my child be more physically active?

To be healthy, children need to do at least one hour of physical activity every day. Children who are overweight need to do more than this. An hour's activity every day may sound difficult to achieve. One of the best ways to ensure regular activity is to build this into the school day, by encouraging your child to cycle or walk at least part of the way to school each day or most days of the week. Joining in with them is a great way of sharing quality time with them and keeping fit yourself. Other ways are devoting some regular time to family activities at evenings and weekends and limiting the amount of time that children are allowed to spend in front of the TV or computer – children who spend the most time in front of the TV tend to be those who are most overweight.

My child isn't the sporty type and won't take part in anything sporty.

Not all children enjoy taking part in traditional sports and this can particularly be the case for those who are conscious of their weight. The most important thing is to find activities that your child finds fun. This doesn't have to be football or netball. Any activity that gets a child slightly out of breath counts – for example, walking at a good pace, playing with pets or dancing.

It's also important to realise that the one hour of physical activity a day that is recommended for children (and the 30 minutes most days for adults) does not need to be continuous. It can be made up of short bursts of activity that add up to 60 minutes, for example, two 15-minute walks to and from school a day, and 30 minutes of activity in the park in the evening for a child, or for an adult, 15 minutes playing with your child and 15 minutes doing housework.

My child constantly snacks on crisps, chocolates and fizzy drinks. How do I stop him/her?

There is room within a healthy balanced diet for your child to enjoy the occasional unhealthy snack. When these foods are forming part of the everyday diet it is time to try some changes. Most of us would benefit from reducing the amount of salt, sugar and saturated fat in our diets, so try to gradually replace foods high in these with healthier options – for example, water instead of fizzy drinks on most days, or fruit instead of chocolate and crisps for snacking. The best thing to do is introduce your child gradually to a range of different, healthier meals and snacks and persist – it can take children a long time to get used to tastes that are unfamiliar.

Does junk food during pregnancy give children a sweet tooth?

There is a possible relationship between food consumed by the mother during pregnancy and the subsequent tastes of her children, although this has not yet been proven conclusively. However, it is very important for pregnant women to take good care of themselves by eating a balanced diet.

Are working mothers to blame for childhood obesity?

One large study in the UK found that children were more likely to be overweight at birth if their mother worked, particularly if they worked long hours. This does not mean mothers are to blame for obesity. Few of us in today's society are in a position where a parent is able or willing to remain in the home. However, clearly society has changed and with long working hours, it is now much harder for families to find time to cook and be active.

Are children who don't get enough sleep more likely to be obese when they grow up?

Some studies have found a relationship between sleep problems in childhood and weight in adulthood. However, there is no clear evidence to show that the two are directly related.

Obesity and pregnancy

I am struggling to get pregnant. I have also been told I am obese. Are the two related?

If your Body Mass Index (BMI – the measure used to calculate weight status) is over 29, this may make it less likely that you will become pregnant, and the greater your BMI, the lower the likelihood of pregnancy. There are other reasons for having problems conceiving (including BMI of the man). If you are having problems, ask your doctor for advice. Your doctor may refer you to an appropriate specialist.

I am pregnant and have been told I am obese and need to do something about it. Why does this matter? I want to give my baby the best start in life and am eating for two.

There are many reasons for maintaining a healthy weight at all stages of life, including during pregnancy. Women who are obese while pregnant have a higher risk of having an infant with spina bifida, heart defects, smaller arms and legs than average, hernia in the diaphragm and other birth defects. These links are not yet fully understood, and may be due to undiagnosed diabetes.



TOOL E9 The National Child Measurement Programme (NCMP)

TOOL
E9

For:	Healthcare professionals who may be involved in the National Child Measurement Programme (NCMP)
About:	This tool briefly outlines the purpose of the NCMP and includes FAQs from parents about the NCMP.
Purpose:	To give healthcare professionals background information on the NCMP and to provide answers to questions that may be raised by parents of children involved in the NCMP.
Use:	To be used if parents have a query about the NCMP.
Resource:	Information – guidance and resources – on the NCMP can be found at www.dh.gov.uk/healthyliving

Purpose of the NCMP

The NCMP is one part of the programme of work to implement the *Healthy Weight, Healthy Lives* strategy, and is overseen by the Cross-Government Obesity Unit (Department of Health and the Department for Children, Schools and Families). Every year children in Reception Year and Year 6 are weighed and measured during the school year as part of this programme. The primary purpose of the NCMP is to:

- help local areas to understand the prevalence of child obesity in their area, and help inform local planning and delivery of services for children
- gather population-level surveillance data to allow analysis of trends in growth patterns and obesity, and
- enable PCTs and local authorities to use the data from the NCMP to set local goals as part of the NHS Operating Framework vital signs and their LAA National Indicator Set, agree them with strategic health authorities and government offices, and then monitor performance.

The programme also increases public and professional understanding of weight issues in children, and engages parents and families in healthy lifestyles and weight issues, through the provision (whether routinely or by request) of the results and additional information to parents.

FAQs from parents

Q: Why is my child being weighed and measured?

A: The NHS wants to know how healthy children in England are. Recording the heights and weights of children in Reception and Year 6 helps them to work this out, so that they can decide what more they need to do to help children be healthier and live healthier lives.

Q: Will my child's height or weight be shown to other people?

A: No. Only the person weighing your child will see their height or weight. They will write it down secretly and it will be kept confidential. Nobody will be shown your child's weight, except you. Your primary care trust could automatically contact you about your child's weight, but if you do not hear from them, you can ask your primary care trust for the results.

Q: Will my child's friends know what my child's height and weight are?

A: No, your child's friends and classmates will not be told and will not see what your child weighs or how tall they are.

Q: Will my child have to take their clothes off?

A: No. Your child will remain fully clothed at all times, but they will be asked to take off their shoes. If your child is wearing heavy outdoor clothing, such as a coat or a thick jumper, they will be asked to take this off too.

Q: Will other people see my child being weighed and measured?

A: Your child will be weighed and measured away from other people. When it is your child's turn, they will be called into the room or the screened-off area. The only people in this area will be your child and the person weighing them, although they can take a friend in with them if they prefer.

Q: What happens during the process?

A: Your child will be called into the private area where the weighing and measuring will take place. The person will measure your child's height using a special height measure (like a big ruler). They will also record their weight by asking them to stand on a set of scales. They will then write your child's height and weight down and keep it confidential. That is all there is to it.

Q: What happens after my child has been weighed?

A: After all the children in the class have been weighed, the person running the exercise will take all the results back to the primary care trust. They will then input the results onto a computer and send the results off to a place (the NHS Information Centre) where people collect the heights and weights of all the children in the country who have been weighed. Your child's name won't be sent, so no-one will be able to find their results from this. This will happen for each school in England. The NHS will then look at all the measurements, so they can plan how to help children be healthier.

Q: How can I find out the results?

A: Your PCT could automatically contact you about your child's weight, but if they do not, you will be able to find out your child's results by contacting them yourself. The leaflet you are given will also explain more about the weighing and measuring process, and will provide you with some simple tips on how the whole family can get active and eat healthy meals.

Q: Will my child have to go on a special diet or exercise programme after the weigh-in?

A: All children should be encouraged to eat healthy food and be physically active. Remember, only you will know the results. If the results suggest that your child's weight is possibly unhealthy, you and your child may choose to make some changes as a family – such as eating more healthily and being more physically active. But the school will not be putting your child on a 'diet' or make your child change the way they eat.

Q: Is there someone my child can talk to if they are worried about their weight?

A: Yes. Your child can talk to their school nurse or the person who is weighing them. They can talk to them about their concerns and can suggest where they can go for further help, if it is needed. You will be able to get a copy of a leaflet which includes some simple tips on how to be healthier.

Note: More guidance will be produced on routinely feeding back NCMP data to parents, and dealing with follow-up requests, in late 2008.

References

1. Cross-Government Obesity Unit, Department of Health, Department for Children, Schools and Families. *Healthy weight, healthy lives: A cross-government strategy for England*. London: Department of Health and Department for Children, Schools and Families; 2008.
2. Cross-Government Obesity Unit, Department of Health, Department for Children, Schools and Families. *Healthy weight, healthy lives: Guidance for local areas*. London: Department of Health; 2008.
3. Jotangia D, Moody A, Stamatakis E, Wardle H. *Obesity among children under 11*. London: National Centre for Social Research, Department of Epidemiology and Public Health at the Royal Free and University College Medical School; 2005.
4. Zaninotto P, Wardle H, Stamatakis E, Mindell J, Head J. *Forecasting obesity to 2010*. London: Joint Health Surveys Unit (National Centre for Social Research, Department of Epidemiology and Public Health at the Royal Free and University College Medical School); 2006.
5. Butland B, Jebb S, Kopelman P, McPherson K, Thomas S, et al. *Foresight tackling obesities: Future choices – project report. 2nd edition*. London: Department for Innovation, Universities and Skills; 2007.
6. National Institute for Health and Clinical Excellence (NICE). *Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guidance 43*. London: NICE; 2006.
7. National Heart Forum. *Lightening the load: Tackling overweight and obesity. A toolkit for developing local strategies to tackle overweight and obesity in children and adults*. London: National Heart Forum in association with the Faculty of Public Health and the Department of Health; 2007.
8. Department of Health. *Choosing health: Making healthier choices easier*. London: Department of Health; 2004.
9. The Information Centre for Health and Social Care. *Health Survey for England 2005: Updating of trend tables to include 2005 data*. London: The Information Centre for Health and Social Care; 2006.
10. Craig R, Mindell J (eds.) *Health Survey for England 2006. Volume 1: Cardiovascular disease and risk factors in adults*. London: The Information Centre for Health and Social Care; 2008.
11. Craig R, Mindell J (eds.) *Health Survey for England 2006. Volume 2: Obesity and other risk factors in children*. London: The Information Centre for Health and Social Care; 2008.
12. Sproston K, Primatesta P (eds.) *Health Survey for England 2003. Volume 2: Risk factors for cardiovascular disease*. London: TSO; 2004.
13. World Health Organization. *Obesity and overweight*. Geneva: WHO; 2003.
14. Working Party of the Royal College of Physicians of London, Royal College of Paediatrics and Child Health, and Faculty of Public Health. *Storing up problems: The medical case for a slimmer nation*. London: Royal College of Physicians of London; 2004.
15. Sproston K, Mindell J. *Health Survey for England 2004. Volume 1: The health of minority ethnic groups*. London: The Information Centre for Health and Social Care; 2006.
16. McPherson K, Marsh T, Brown M. *Modelling future trends in obesity and the impact on health. Foresight tackling obesities: Future choices*. London: Department for Innovation, Universities and Skills; 2007.
17. Sproston K, Primatesta P (eds.) *Health Survey for England 2002: The health of children and young people*. London: TSO; 2003.
18. Department of Health. *Annual report of the Chief Medical Officer 2002: Health check: On the state of the public health*. London: Department of Health; 2003.
19. Department of Health, Department for Children, Schools and Families. *National Child Measurement Programme: 2006/07 school year, headline results*. London: The Information Centre; 2008.
20. Jebb S. *Obesity: causes and consequences*. www.medicinepublishing.co.uk 2004.

21. World Health Organization. *Obesity: Preventing and managing the global epidemic. Report of a WHO consultation. WHO Technical Report Series 894(3), i-253.* Geneva: WHO; 2000.
22. Mulvihill C, Quigley R. *The management of obesity and overweight. An analysis of reviews of diet, physical activity and behavioural approaches: Evidence briefing. 1st edition.* London: Health Development Agency; 2003.
23. Scottish Intercollegiate Guidelines Network. *Management of obesity in children and young people. A National Clinical Guideline.* Edinburgh: SIGN; 2003.
24. Guo SS, Wu W, Chumlea WC, Roche AF. Predicting overweight and obesity in adulthood from body mass index values in childhood and adolescence. *The American Journal of Clinical Nutrition.* 2002; 76(3): 653-658.
25. Parsons TJ, Power C, Logan S, Summerbell CD. Childhood predictors of adult obesity: A systematic review. *International Journal of Obesity.* 1999; 23(Suppl 8): S1-S107.
26. Hubert HB, Feinleib M, McNamara PM, Castelli WP. Obesity as an independent risk factor for cardiovascular disease: A 26-year follow-up of participants in the Framingham Heart Study. *Circulation.* 1983; 67: 968-977.
27. Tonkin R. *The X factor: Obesity and the metabolic syndrome.* London: The Science and Public Affairs Forum; 2003.
28. National Audit Office. *Tackling obesity in England.* London: TSO; 2001.
29. Bellentani S, Saccoccio G, Masutti F, et al. Prevalence of and risk factors for hepatic steatosis in Northern Italy. *Annals of Internal Medicine.* 2000; 132(2): 112-117.
30. Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of child and adolescent overweight and obesity. *Pediatrics.* 2007; 120: S193-S228.
31. Lenders CM, McElrath TF, Scholl TO. Nutrition in adolescent pregnancy. *Current Opinion in Pediatrics.* 2000; 12: 291-296.
32. Strauss RS, Barlow SE, Dietz WH. Prevalence of abnormal serum aminotransferase values in overweight and obese adolescents. *Journal of Pediatrics.* 2000; 136: 727-733.
33. Loube DI, Loube AA, Erman MK. Continuous positive airway pressure treatment results in weight loss in obese and overweight patients with obstructive sleep apnea. *Journal of the American Dietetic Association.* 1997; 97: 896-897.
34. Kopelman P. Health risks associated with overweight and obesity. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews.* 2007; 8(s1): 13-17.
35. Avenell A, Broom J, Brown TJ, Poobalan A, Aucott L et al. Systematic review of the long-term effects and economic consequences of treatments for obesity and implications for health improvement. *Health Technology Assessment.* 2004; 8(21): 1-473.
36. Hu FB, Manson JE, Stampfer MJ, Colditz G, et al. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. *The New England Journal of Medicine.* 2001; 345: 790-797.
37. van Dam RM, Rimm EB, Willett WC, Stampfer MJ, Hu FB. Dietary patterns and risk for type 2 diabetes mellitus in US men. *Annals of Internal Medicine.* 2002; 136: 201-209.
38. Manson JE, Willett WC, Stampfer MJ. The Nurses' Health Study: Body weight and mortality among women. *The New England Journal of Medicine.* 1997; 333: 677-685.
39. Rimm EB, Stampfer MJ, Giovannucci E, Ascherio A, et al. Body size and fat distribution as predictors of coronary heart disease among middle-aged and older US men. *American Journal of Epidemiology.* 1995; 141(12): 1117-1127.
40. Garrison RJ, Kannel WB, Stokes J 3rd, Castelli WP. Incidence and precursors of hypertension in young adults: The Framingham Offspring Study. *Preventive Medicine.* 1987; 16: 235-251.
41. Davy KP, Hall JE. Obesity and hypertension: Two epidemics or one? *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology.* 2004; 286: R803-R813.
42. Jood K, Jern C, Wilhelmsen L, Rosengren A. Body mass index in mid-life is associated with a first stroke in men: A prospective population study over 28 years. *Stroke.* 2004; 35: 2764.

43. Department of Health. *Choosing health: Summary of intelligence on obesity*. London: Department of Health; 2004.
44. British Nutrition Foundation website. *Lipgene*. www.nutrition.org.uk.
45. Nugent AP. Review: The metabolic syndrome. *Nutrition Bulletin*. 2004; 29: 36-43.
46. Isomaa B, Almgren P, Tuomi T, Forsen B, et al. Cardiovascular morbidity and mortality associated with the metabolic syndrome. *Diabetes Care*. 2001; 24: 683-689.
47. Ruotolo G, Howard BV, Robbins DC. *Chapter 10: Dyslipidemia of obesity*. In: Caro JF, Obesity: Endotext. com; 2003.
48. Rexrode KM, Carey VJ, Hennekens CH, Walters EE, et al. Abdominal adiposity and coronary heart disease in women. *The Journal of the American Medical Association*. 1998; 280: 1843-1848.
49. Calle EE, Rodriguez C, Walker-Thurmond K, Thun MJ. Overweight, obesity and mortality from cancer in a prospectively studied cohort of US adults. *The New England Journal of Medicine*. 2003; 348: 1625-1638.
50. American Obesity Association. *AOA Fact sheets: Health effects of obesity*. Washington DC: AOA; 2005.
51. Day CP. Non-alcoholic fatty liver disease: current concepts and management strategies. *Clinical Medicine*. 2006; 6: 19-25.
52. Dunn W, Schwimmer JB. The obesity epidemic and nonalcoholic fatty liver disease in children. *Current Gastroenterology Reports*. 2008; 10: 67-72.
53. Balen A, Anderson RA. Impact of obesity on female reproductive health: British Fertility Society, policy and practice guidelines. *Human Fertility*. 2007; 10(4): 195-206.
54. Gibson, GJ. Obesity, respiratory function and breathlessness. *Thorax*. 2000; 55(Suppl 1): S41-S44.
55. Sjostrom L, Larsson B, Backman L, Bengtsson C, et al. Swedish obese subjects (SOS). Recruitment for an intervention study and a selected description of the obese state. *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity*. 1992; 16: 465-479.
56. Bulpitt CJ, Palmer AJ, Battersby C, Fletcher AE. Association of symptoms of type 2 diabetic patients with severity of disease, obesity and blood pressure. *Diabetes Care*. 1998; 21: 111-115.
57. House of Commons Health Select Committee. *Obesity: Third report of session 2003-2004, volume 1*. London: TSO; 2004.
58. NHS Centre for Reviews and Dissemination. Effective health care: The prevention and treatment of childhood obesity. 2002; 7(number 6).
59. Puhl R, Brownell KD. Bias, discrimination, and obesity. *Obesity Research*. 2001; 9: 788-805.
60. Strauss RS. Childhood obesity and self-esteem. *Pediatrics*. 2000; 105: 1: e15.
61. Strauss RS, Pollack HA. Social marginalization of overweight children. *Archives of Pediatrics and Adolescent Medicine*. 2003; 157: 746-752.
62. Wardle J. Symposium on 'Treatment of obesity'. Understanding the aetiology of childhood obesity: implications for treatment. *Proceedings of the Nutrition Society*. 2005; 64: 73-79.
63. Wadden TA, Stunkard AJ. Social and psychological consequences of obesity. *Annals of Internal Medicine*. 1985; 103: 1062-1067.
64. International Obesity Task Force (IOTF). *About obesity*. www.ietf.org.
65. Gortmaker SL, Must A, Perrin JM, Sobol AM, Dietz WH. Social and economic consequences of overweight in adolescence and young adulthood. *The New England Journal of Medicine*. 1993; 329: 1008-1012.
66. Scottish Intercollegiate Guidelines Network. *Obesity in Scotland. Integrating prevention with weight management. A National Clinical Guideline recommended for use in Scotland*. Edinburgh: SIGN. (Under review); 1996.
67. Vidal J. Updated review on the benefits of weight loss. *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity*. 2002; 26: Suppl 4: S25-S28.

68. Jung R. Obesity as a disease. *British Medical Bulletin*. 1997; 53(2): 307-321.
69. Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *The New England Journal of Medicine*. 2002; 346(6):393-404.
70. McCormick B, Stone I. Economic costs of obesity and the case for government intervention. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2007; 8(s1): 161-164.
71. Farooqi IS, O'Rahilly S. Genetic factors in human obesity. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2007; 8(s1): 37-40.
72. Rolls ET. Understanding the mechanisms of food intake and obesity. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2004; 8(s1): 67-72.
73. Wardle J. *Eating behaviour and obesity. Short science review. Foresight tackling obesities: Future choices*. 2007.
74. Bloom S. Hormonal regulation of appetite. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2007; 8(s1): 63-65.
75. Singhal A, Lanigan J. Breastfeeding, early growth and later obesity. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2007; 8(s1): 51-54.
76. Department for Environment, Food and Rural Affairs. *Family food in 2006. A National Statistics publication by Defra*. London: TSO; 2008.
77. Ello-Martin JA, Ledikwe JH, Rolls BJ. The influence of food portion size and energy density on energy intake: Implications for weight management. *American Journal of Clinical Nutrition*. 2005; 82: 236S -241S.
78. Fox KR, Hillsdon M. Physical activity and obesity. Short science review. Foresight tackling obesities: Future choices. *Obesity Reviews*. 2007; 8(s1): 115-121.
79. National Heart Forum, Living Streets, CABE. *Building health: Creating and enhancing places for healthy, active lives. Blueprint for action*. London: National Heart Forum; 2007.
80. National Heart Forum, Living Streets, CABE. *Building health: Creating and enhancing places for healthy, active lives: What needs to be done?* London: National Heart Forum; 2007.
81. Department for Transport. *National Travel Survey: 2007. Interview data*. London: Department for Transport; 2008.
82. North West Public Health Observatory. Obesity: The biggest unrecognised public health problem? *NW Health Bulletin*. 2002; 2: 4.
83. ChildWise. *The Monitor Report 2007-08*. London: ChildWise; 2008.
84. Murcott A (ed). *The nation's diet: The social science of food choice*. London: Longman; 1998.
85. Dallman MF, Pecoraro N, Akana SF, la Fleur SE, et al. Chronic stress and obesity: A new view of 'comfort food'. *Proceedings of the National Academy of Sciences of the United States of America*. 2003; 100: 11696-11701.
86. Mercola J. Stress often leads to overeating and extra weight. *Preventive Medicine*. 2002;34: 29-39.
87. HM Treasury. *PSA Delivery Agreement 12: Improve the health and wellbeing of children and young people*. London: HM Treasury; 2007.
88. National Heart Forum. *Towards a generation free from coronary heart disease. Policy action for children's and young people's health and well-being*. London: National Heart Forum; 2002.
89. Department of Health. *Choosing a better diet: A food and health action plan*. London: Department of Health; 2005.
90. National Institute for Health and Clinical Excellence (NICE). *Improving the nutrition of pregnant and breastfeeding mothers and children in low-income households. NICE public health guidance 11*. London: NICE; 2008.
91. Morin KH. Perinatal outcomes of obese women: A review of the literature. *Journal of Obstetric, Gynecologic and Neonatal Nursing*. 1998; 27(4): 431.

92. Heslehurst N, Ellis LJ, Simpson H, Batterham A, Wilkinson J, Summerbell CD. Trends in maternal obesity incidence rate, demographic predictors, and health inequalities in 36,821 women over a 15 year period. *British Journal of Obstetrics and Gynaecology*. 2007; 114: 187-194.
93. World Health Organization. *The optimal duration of exclusive breastfeeding: Report on an expert consultation*. Geneva: World Health Organization; 2001.
94. Horta B, Bahl R, Marines J, Victoria C. *Evidence on the long term effects of breastfeeding: Systematic reviews and meta-analysis*. Geneva: World Health Organization; 2007.
95. Fewtrell MS. The long term benefits of having been breastfed. *Current Paediatrics*. 2004; 14: 97-103.
96. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: A systematic review. *Advances in Experimental Medicine and Biology*. 2004; 554: 63-77.
97. Sadauskaite-Kuehne V, Ludvigsson J, Padaiga Z, Jasinskiene E, Samuelsson U. Longer breastfeeding is an independent protective factor against development of type 1 diabetes mellitus in childhood. *Diabetes/ Metabolism Research and Reviews*. 2004; 20(2): 150-157.
98. Dewey KG, Heinig MJ, Nommsen LA. Maternal weight-loss patterns during prolonged lactation. *American Journal of Clinical Nutrition*. 1993; 58(2): 162-166.
99. Committee on Medical Aspects of Food Policy. *Nutritional Aspects of Cardiovascular Disease*. London: HMSO; 1994.
100. Crawley H. *Eating well for under-5s in child care. Practical and nutritional guidelines*. St. Austell: Caroline Walker Trust; 2006.
101. Department for Children, Schools and Families. *Statutory Framework for the Early Years Foundation Stage. Setting the standards for learning, development and care for children from birth to five*. London: Department for Children, Schools and Families; 2008.
102. Lobstein T, Baur L, Uauy R. Obesity in children and young people: a crisis in public health. Report to the WHO by the International Association for the Study of Obesity. *Obesity Reviews*. 2004; 5(Suppl. 1): 4-85.
103. Braet C, Mervielde I, Vandereycken W. Psychological aspects of childhood obesity: a controlled study in a clinical and nonclinical sample. *Journal of Pediatric Psychology*. 1997; 22: 59-71.
104. National Statistics. *Family Food in 2006*. London: TSO; 2008.
105. Scientific Advisory Committee on Nutrition. *Salt and health*. London: TSO; 2003.
106. National Centre for Social Research, Human Nutrition Research. *An assessment of dietary sodium levels among adults (aged 19-64) in the UK general population in 2008, based on analysis of dietary sodium in 24 hour urine samples*: www.food.gov.uk; 2008.
107. Ministry of Agriculture, Fisheries and Food. *Food and nutrient intakes of British infants aged 6-12 months*. London: HMSO; 1992.
108. Office for Population Censuses and Surveys. *National Diet, Nutrition and Dental Survey of children aged 1½ to 4½ years, 1992-1993*. London: TSO; 1995.
109. Office for National Statistics. *National Diet and Nutrition Survey: Young people aged 4 to 18 years, 1997*. London: TSO; 2001.
110. Department of Health, Home Office, Department for Education and Skills, Department for Culture, Media and Sport. *Safe. Sensible. Social. The next steps in the National Alcohol Strategy*. London: Department of Health; 2007.
111. Prime Minister's Strategy Unit. *Alcohol Harm Reduction Strategy for England*. London: Cabinet Office; 2004.
112. Department of Health. *Choosing activity: A physical activity action plan*. London: Department of Health; 2005.
113. Department of Health. *At least five a week: Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer*. London: Department of Health; 2004.
114. HM Treasury. *Stability, security and opportunity for all: Investing for Britain's long-term future*. London: HM Treasury; 2004.

115. HM Treasury. *PSA Delivery Agreement 22: Deliver a successful Olympic Games and Paralympic Games with a sustainable legacy and get more children and young people taking part in high quality PE and sport*. London: HMSO; 2007.
116. Department for Culture, Media and Sport. *Before, during and after: Making the most of the London 2012 Games*. London: DCMS; 2008.
117. National Institute for Health and Clinical Excellence (NICE). *Promoting and creating built or natural environments that encourage and support physical activity. NICE public health guidance 8*. London: NICE; 2008.
118. Department for Children, Schools and Families, Department for Culture, Media and Sport. *Fair Play: A consultation on the play strategy*. London: DCSF; 2008.
119. National Institute for Health and Clinical Excellence (NICE). *Rimonabant for the treatment of overweight and obese adults. NICE technology appraisal guidance 144*. London: NICE; 2008.
120. Department of Health. *Care pathway for the management of overweight and obesity*. London: Department of Health; 2006.
121. PRODIGY Knowledge. *Obesity*. Newcastle: Sowerby Centre for Health Informatics at Newcastle Ltd (SCHIN). 2001.
122. Royal College of Paediatrics and Child Health and National Obesity Forum. *An approach to weight management in children and adolescents (2-18 years) in primary care*. London: Royal College of Paediatrics and Child Health; 2002.
123. National Obesity Forum. *National Obesity Forum guidelines on management of adult obesity and overweight in primary care*. London: National Obesity Forum; 2004.
124. National Obesity Forum. *Obesity care pathway and toolkit*. London: National Obesity Forum; 2005.
125. National Heart, Lung and Blood Institute. *Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: The evidence report*. Bethesda: MD: National Institutes of Health; 1998.
126. National Health and Medical Research Council. *Clinical practice guidelines for the management of overweight and obesity in adults*. Canberra: ACT: NHMRC; 2003.
127. National Health and Medical Research Council. *Clinical practice guidelines for the management of overweight and obesity in children and adolescents*. Canberra, ACT: NHMRC; 2003.
128. National Institute for Health and Clinical Excellence (NICE). *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*. London: NICE; 2006.
129. Royal Pharmaceutical Society of Great Britain. *Practice guidance: Obesity*. London: RPSGB; 2005.
130. Dietitians in Obesity Management UK. *Directory: Obesity training courses for primary care* (Being updated, available Spring 2009). www.domuk.org 2005.
131. Department of Health. *Exercise referral systems: A national quality assurance framework*. London: Department of Health; 2001.
132. Tierney I, Cavill N. *Health on wheels: A guide to developing cycling referral projects*. Bolton: Cube3 Media; 2006.
133. Dr Foster. *Primary care management of adult obesity*. London: Dr Foster; 2005.
134. British Medical Association and NHS Employers. *Revisions to the GMS contract, 2006/07. Delivering investment in general practice*. London: BMA and NHS Employers; 2006.
135. Department of Health. *General Medical Services (GMS contract)*. London: Department of Health; 2004.
136. Department of Health. *Choosing health through pharmacy*. London: Department of Health; 2005.
137. Communities and Local Government. *The new Performance Framework for local authorities and local authority partnerships: Single set of National Indicators*. London: Communities and Local Government; 2007.

138. Department of Health. *Operational plans 2008/09-2010/11 (implementing the 2008/09 Operating Framework): National planning guidance and 'vital signs'*. London: Department of Health; 2008.
139. Cross-Government Obesity Unit. *The National Child Measurement Programme. Guidance for PCTs: 2008/09 school year*. London: Department of Health and Department for Children, Schools and Families; 2008.
140. Department for Children, Schools and Families, Department of Health. *The National Child Measurement Programme. Guidance for schools: 2007-08 school year*. London: Department for Children, Schools and Families; 2007.
141. Cross-Government Obesity Unit, Department of Health, Department for Children, Schools and Families. *How to set and monitor goals for prevalence of child obesity: Guidance for primary care trusts (PCTs) and local authorities*. London: Department of Health; 2008.
142. National Institute for Health and Clinical Excellence (NICE). *Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Costing report*. London: NICE; 2006.
143. National Institute for Health and Clinical Excellence (NICE). *Quick reference guide 1: For local authorities, schools and early years providers, workplaces and the public*. London: NICE; 2006.
144. National Institute for Health and Clinical Excellence (NICE). *Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Audit criteria*. London: NICE; 2006.
145. Department of Health. *World Class Commissioning: Competencies*. London: Department of Health; 2007.
146. Primary Care Contracting. *A vision for World Class Commissioning: Adding life to years and years to life*. www.primarycarecontracting.nhs.uk Unpublished.
147. The Information Centre for Health and Social Care. *Neighbourhood statistics: Model based estimates of healthy lifestyle behaviours at PCO level 2003-05*. London: The Information Centre for Health and Social Care; 2008.
148. The Information Centre. *National Child Measurement Programme: 2006/07 school year, headline results*. London: The Information Centre; 2008.
149. Department of Health. *The NHS in England: the Operating Framework for 2008/09*. London: Department of Health; 2007.
150. Department for Education and Skills, Department of Health. *Joint planning and commissioning framework for children, young people and maternity services*. London: Department for Education and Skills and Department of Health; 2006.
151. Department of Health. *The Child Health Promotion Programme: Pregnancy and the first five years of life*. London: Department of Health; 2008.
152. Department for Education and Skills. *Governance guidance for Sure Start Children's Centres and extended schools*. London: Department for Education and Skills; 2007.
153. Education and Inspections Act 2006. *Chapter 40*; 2006.
154. National Institute for Health and Clinical Excellence (NICE). *Behaviour change at population, community and individual levels. NICE public health guidance 6*. London: NICE; 2007.
155. National Institute for Health and Clinical Excellence (NICE). *Workplace health promotion: How to encourage employees to be physically active. NICE public health guidance 13*. London: NICE; 2008.
156. Department of Health. *Health inequalities: Progress and next steps*. London: Department of Health; 2008.
157. Koblinsky SA, Guthrie JL, Lynch L. Evaluation of a nutrition education program for Head Start parents. *Society for Nutrition Education*. 1992; 24: 4-13.
158. McGarvey E, Keller A, Forrester M, et al. Feasibility and benefits of a parent-focused preschool child obesity intervention. *American Journal of Public Health*. 2004; 94: 1490-1495.
159. Dennison BA, Russo TJ, Burdick PA, Jenkins PL. An intervention to reduce television viewing by preschool children. *Archives of Pediatrics and Adolescent Medicine*. 2004; 158: 170-176.

160. Luepker RV, Perry CL, McKinlay SM, et al. Outcomes of a field trial to improve children's dietary patterns and physical activity. The Child and Adolescent Trial for Cardiovascular Health. CATCH collaborative group. *The Journal of the American Medical Association*. 1996; 275: 768-776.
161. Caballero B, Clay T, Davis SM, et al, Pathways Study Research Group. Pathways: A school-based, randomized controlled trial for the prevention of obesity in American Indian schoolchildren. *American Journal of Clinical Nutrition*. 2003; 78: 1030-1038.
162. Donnelly JE, Jacobsen DJ, Whatley JE, et al. Nutrition and physical activity program to attenuate obesity and promote physical and metabolic fitness in elementary school children. *Obesity Research*. 1996; 4: 229-243.
163. French SA, Wechsler H. School-based research and initiatives: fruit and vegetable environment, policy, and pricing workshop. *Preventive Medicine*. 2004; 39: S101-S107.
164. Wells L, Nelson M. The National School Fruit Scheme produces short-term but not longer-term increases in fruit consumption in primary school children. *British Journal of Nutrition*. 2005; 93: 537-542.
165. Wang LY, Yang Q, Lowry R, Wechsler H. Economic analysis of a school-based obesity prevention program. *Obesity Research*. 2003; 11(11): 1313-1324.
166. Wang L, Yin Z, Gutin B, et al. A cost-effectiveness analysis of a school-based obesity prevention program. *Obesity Research*. 2004; 12: A18 (Suppl).
167. Pangrazi RP, Beighle A, Vehige T, Vack C. Impact of Promoting Lifestyle Activity for Youth (PLAY) on children's physical activity. *Journal of School Health*. 2003; 73: 317-321.
168. Warren JM, Henry CJ, Lightowler HJ, et al. Evaluation of a pilot school programme aimed at the prevention of obesity in children. *Health Promotion International*. 2003; 18: 287-296.
169. Jamner MS, Spruijt-Metz D, Bassin S, Cooper DM. A controlled evaluation of a school-based intervention to promote physical activity among sedentary adolescent females: project FAB. *Journal of Adolescent Health*. 2004; 34: 279-289.
170. Rowland D, DiGiuseppi C, Gross M, et al. Randomised controlled trial of site specific advice on school travel patterns. *Archives of Disease in Childhood*. 2003; 88: 8-11.
171. Parker J, Seddon J. Back to school. *Surveyor*. 2003; 190: 14-16.
172. Department for Environment, Transport and the Regions. *School travel strategies and plans: Case study reports*. London: DETR; 2000.
173. Jones D. Letting the kids decide. *Surveyor*. 2001; 188: 20-22.
174. Sahota P, Rudolf MC, Dixey R, et al. Randomised controlled trial of primary school based intervention to reduce risk factors for obesity. *British Medical Journal*. 2001; 323: 1029-1032.
175. Austin SB, Field AE, Wiecha J, et al. The impact of a school-based obesity prevention trial on disordered weight-control behaviors in early adolescent girls. *Archives of Pediatrics and Adolescent Medicine*. 2005; 159: 225-230.
176. Gortmaker SL, Peterson K, Wiecha J, et al. Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Archives of Pediatrics and Adolescent Medicine*. 1999; 153: 409-418.
177. Woolfe J, Stockley L. Nutrition health promotion in schools in the UK: Learning from Food Standards Agency funded schools research. *Health Education Journal*. 2005; 64: 218-228.
178. Miles A, Rapoport L, Wardle J, et al. Using the mass media to target obesity: an analysis of the characteristics and reported behaviour change of participants in the BBC's 'Fighting Fat, Fighting Fit' campaign. *Health Education Research*. 2001; 16: 357-372.
179. Wardle J, Rapoport L, Miles A, et al. Mass education for obesity prevention: the penetration of the BBC's 'Fighting Fat, Fighting Fit' campaign. *Health Education Research*. 2001; 16: 343-355.
180. Department of Health. *Five-a-day pilot initiatives: Executive summary of the pilot initiatives evaluation study*. London: Department of Health; 2003.
181. McDermott. Unpublished data. 2006.
182. Whelan A, Wrigley N, Warm D, et al. Life in a 'food desert'. *Urban Studies*. 2002; 39: 2083-2100.

183. Wrigley N, Warm D, Margetts B. Deprivation, diet and food-retail access: findings from the Leeds 'food deserts' study. *Environment and Planning A*. 2003; 35: 151-188.
184. Dzator JA, Hendrie D, Burke V, et al. A randomized trial of interactive group sessions achieved greater improvements in nutrition and physical activity at a tiny increase in cost. *Journal of Clinical Epidemiology*. 2004; 57(6): 610-619.
185. Roux L, Pratt M, Yanagawa T, et al. Measurement of the value of exercise in obesity prevention: A cost-effectiveness analysis of promoting physical activity among US adults. *Obesity Research*. 2004; 12: A18 (Suppl).
186. Huhman M, Potter DL, Wong FL, et al. Effects of mass media campaign to increase physical activity among children: Year 1 results of the VERB campaign. *Pediatrics*. 2005; 116: 277-284.
187. Merom D, Bauman A, Vita P, Close G. An environmental intervention to promote walking and cycling – The impact of a newly constructed Rail Trail in Western Sydney. *Preventive Medicine*. 2003; 36: 235-242.
188. Merom D, Rissel C, Mahmic A, Bauman A. Process evaluation of the New South Wales Walk Safely To School Day. *Health Promotion Journal of Australia*. 2005; 16: 100-106.
189. Ogilvie D, Egan M, Hamilton V, Petticrew M. Promoting walking and cycling as an alternative to using cars: systematic review. *British Medical Journal*. 2004; 329: 763.
190. Kahn EB, Ramsey LT, Brownson RC, et al. The effectiveness of interventions to increase physical activity. A systematic review. *American Journal of Preventive Medicine*. 2002; 22: 73-107.
191. Seymour JD, Yaroch AL, Serdula M, et al. Impact of nutrition environmental interventions on point-of-purchase behavior in adults: A review. *Preventive Medicine*. 2004; 39(Suppl 2): S108- S136.
192. French SA, Jeffery RW, Story M, et al. Pricing and promotion effects on low-fat vending snack purchases: the CHIPS Study. *American Journal of Public Health*. 2001; 91: 112-117.
193. Janer G, Sala M, Kogevinas M. Health promotion trials at worksites and risk factors for cancer. *Scandinavian Journal of Work, Environment and Health*. 2002; 28: 141-157.
194. Proper KI, Koning M, Van der Beek AJ, et al. The effectiveness of worksite physical activity programs on physical activity, physical fitness, and health. *Clinical Journal of Sport Medicine*. 2003; 13: 106-117.
195. Proper KI, de Bruyne MC, Hildebrandt VH, et al. Costs, benefits and effectiveness of worksite physical activity counselling from the employer's perspective. *Scandinavian Journal of Work, Environment and Health*. 2004; 30(1): 36-46.
196. Aldana S, Merrill R, Price K, et al. Financial impact of a comprehensive multisite workplace health promotion program. *Preventative Medicine*. 2005; 40: 131-137.
197. Mutrie N. 'Walk in to Work Out': A randomised controlled trial of a self help intervention to promote active commuting. *Journal of Epidemiology and Community Health*. 2002; 56: 407-412.
198. Oja P, Paronen O, Manttari A, et al. *Occurrence, effects and promotion of walking and cycling as forms of transportation during work commuting – a Finnish experience. Proceedings of the World Congress on Sport for All, 3-7 June 1990. Finland 1991.*
199. Department of Health. *PCT procurement guide for health services*. London: Department of Health; 2008.
200. Department of Health. *Framework for managing choice, cooperation and competition*. London: Department of Health; 2008.
201. French J, Blair-Stevens C. *Social marketing national benchmark criteria*. London: National Social Marketing Centre; 2006.
202. National Consumer Council. *It's our health! Realising the potential of effective social marketing*. London: National Consumer Council; 2006.
203. Home Office. *Passport to evaluation*. York: Home Office; 2002.
204. National Institute for Health and Clinical Excellence (NICE). *Quick reference guide 2: For the NHS*. London: NICE; 2006.
205. Department of Health. *Adult care pathway (primary care). Laminated poster*. London: Department of Health; 2006.

206. Department of Health. *Children and young people care pathway (primary care)*. Laminated poster. London: Department of Health; 2006.
207. Department of Health. *Measuring childhood obesity. Guidance to primary care trusts*. London: Department of Health; 2006.
208. World Health Organization, International Association for the Study of Obesity, International Obesity Task Force. *The Asia-Pacific perspective: Redefining obesity and its treatment*. Melbourne, Australia: Health Communications Australia Pty Limited; 2000.
209. WHO Expert Consultation. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *The Lancet*. 2004; 363(9403) 157-163.
210. International Diabetes Federation. *The IDF consensus worldwide definition of the metabolic syndrome*. Brussels: Belgium: IDF; 2005.
211. Wildman RP, Gu D, Reynolds K, Duan X and He J. Appropriate body mass index and waist circumference cutoffs for categorization of overweight and central adiposity among Chinese adults. *American Journal of Clinical Nutrition*. 2004; 80: 1129-1136.
212. Bassand JP. *Results from a region-by-region analysis of the IDEA study highlight the differences in anthropometric characteristics between Asian and European populations*: European Society of Cardiology; 2006.
213. Cole TJ, Freeman JV, Preece MA. Body mass index reference curves for the UK, 1990. *Archives of Disease in Childhood*. 1995; 73: 25-29.
214. Wright CM, Booth IW, Buckler JM, Cameron N, et al. Growth reference charts for use in the United Kingdom. *Archives of Disease in Childhood*. 2002; 86: 11-14.
215. Reilly JJ, Wilson ML, Summerbell CD, Wilson DC. Obesity: diagnosis, prevention, and treatment. Evidence based answers to common questions. *Archives of Disease in Childhood*. 2002; 86: 392-394.
216. Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. *British Medical Journal*. 2000; 320 (7244): 1240.
217. Stamatakis E. *Anthropometric measurements, overweight, and obesity*. In: Sproston K, Primatesta P (eds.) *Health Survey for England. Volume 1. The health of children and young people*. London: TSO; 2003.
218. Freedman DS, Serdula MK, Srinivasan SR, Berenson GS. Relation of circumferences and skinfold thickness to lipid and insulin concentrations in children and adolescents: The Bogalusa Heart Study. *American Journal of Clinical Nutrition*. 1999; 69: 308-317.
219. McCarthy HD, Jarrett KV, Crawley HF. The development of waist circumference percentiles in British children aged 5.0 – 6.9y. *European Journal of Clinical Nutrition*. 2001; 55: 902-907.
220. Department of Health. *Raising the issue of weight in adults*. Laminated card. London: Department of Health; 2006.
221. Department of Health. *Raising the issue of weight in children and young people*. Laminated card. London: Department of Health; 2006.
222. Lawson V, Shoneye C. *Overweight health professionals giving weight management advice: The perceptions of health professionals and overweight people*. London: Weight Concern; 2008.
223. National Institute for Health and Clinical Excellence (NICE). *Understanding NICE guidance – Preventing obesity and staying a healthy weight*. London: NICE; 2006.
224. Department of Health. *Why weight matters*. London: Department of Health; 2006 (updated 2008).
225. Department of Health. *Your weight, your health. How to take control of your weight*. London: Department of Health; 2006.
226. Department of Health. *Healthy Weight, Healthy Lives: Why your child's weight matters*. London: Department of Health; 2008.
227. National Institute for Health and Clinical Excellence (NICE). *Understanding NICE guidance – Treatment for people who are overweight or obese*. London: NICE; 2006 (updated 2008).
228. British Heart Foundation. *So you want to lose weight ... for good*. London: BHF; 2005.

Acronyms

BME	black and minority ethnic
BMI	Body Mass Index
CHD	coronary heart disease
CHPP	Child Health Promotion Programme
CMO	Chief Medical Officer
CRM	customer relationship management
CVD	cardiovascular disease
CWT	Caroline Walker Trust
DCMS	Department for Culture, Media and Sport
DCSF	Department for Children, Schools and Families (formerly the Department for Education and Skills)
DfES	Department for Education and Skills (now the Department for Children, Schools and Families)
ECM	Every Child Matters
EPP	Expert Patients Programme
EYFS	Early Years Foundation Stage
FIP	Family Intervention Project
FIS	Family Information Services
FiS	Food in Schools
FNP	Family Nurse Partnership
FPH	Faculty of Public Health
GMS	General Medical Services
HDL	high-density lipoprotein
IOTF	International Obesity Taskforce
JSNA	joint strategic needs assessment
LA	local authority
LAA	local area agreement
LDL	low-density lipoprotein
LDP	Local Delivery Plan
LEAP	Local Exercise Action Pilot
LPSA	Local Public Service Agreement
LSP	Local Strategic Partnership
MOI	Memorandum of Information
NCMP	National Child Measurement Programme

NGO	non-governmental organisation
NHF	National Heart Forum
NHLBI	National Heart, Lung, and Blood Institute
NHSS	National Healthy Schools Standard
NICE	National Institute for Health and Clinical Excellence
NIS	National Indicator Set
NOF	National Obesity Forum
NSF	National Service Framework
NSMC	National Social Marketing Centre
NSP	National Step-O-Meter Programme
NS-SeC	National statistics socioeconomic classification
OGC	Office of Government Commerce
OSA	obstructive sleep apnoea
PBC	practice-based commissioning
PCT	primary care trust
PEAT	Patient Environment Action Team
PEC	professional executive committee
PESSCL	PE, School Sport and Club Links
PHIAC	Public Health Independent Advisory Committee
PHO	Public Health Observatory
PI	performance indicator
PPF	Priorities and Planning Framework
PSA	Public Service Agreement
QMAS	Quality Management and Analysis System
QOF	Quality and Outcomes Framework
RCPCH	Royal College of Paediatrics and Child Health
RCT	randomised controlled trial
SACN	Scientific Advisory Committee on Nutrition
SFVS	School Fruit and Vegetable Scheme
SHA	strategic health authority
SIGN	Scottish Intercollegiate Guidelines Network
SLA	service level agreement
TIA	transient ischaemic attack
WC	waist circumference
WHI	Walking the Way to Health Initiative
WHO	World Health Organization
WHR	waist-hip ratio

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