



**Derby City**  
**Obesity Strategy**  
**2008**

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# 1. Executive Summary

In Derby obesity and childhood obesity has been identified as a key priority for and there is an urgent need to find ways to reverse the proportion of our population who are overweight or obese. Estimates of adult obesity suggest that around a quarter of all adults in the city are obese and that by year 6, up to a third of children may be overweight or obese.

Obesity has been estimated to reduce life expectancy by up to 9 years and is associated with many chronic diseases. Yet the roots of obesity are complex and response requires effective partnerships within Derby to tackle the multiple factors that can cause obesity.

This strategy is intended as a starting point and pulls together the key data and knowledge that we currently have available. Actions to tackle obesity have yet to be drawn up in detail although this strategy does outline some of the first steps that we need to take to develop coherent action plans. At all levels partnership working will be fundamental to how Derby addresses obesity.

A strategic approach to obesity, in Derby, will have has the following aim and objectives:

## 1.1. Aim

To reverse the rising tide of obesity and overweight in the population with a particular focus on childhood obesity

## 1.2. Objectives

- 1.1.1. Review existing activity to tackle obesity in Derby
- 1.1.2. Surveillance – ensure systems are in place to identify the prevalence of obesity in Derby City and to assist commissioning and service planning.
- 1.1.3. Evidence – ensure we have up to date evidence that will enable a co-ordinated evidence-based approach to the prevention, treatment and management of overweight and obesity.
- 1.1.4. Plan – set up partnership systems that will enable; the effective development of plans to address obesity in Derby
- 1.1.5. Action - Develop an agreed implementation plan that will enable the effective identification of resources and enable effective commissioning of obesity related interventions

In January 2008 the Cross-Government Obesity Unit produced a national obesity strategy called *Healthy Weight, Healthy Lives*<sup>1</sup>, this document is mentioned in more detail later in this document but it is significant because of the clear steer that is given to prioritising childhood obesity. This strategy will reflect national policy and childhood obesity will be the primary focus although it is expected that efforts to tackle childhood obesity will inevitably create the context for initiatives targeted at adults as well.

In 2006 The National Institute for Health and Clinical Excellence (NICE) recommended that the focus for initiatives to tackle obesity should focus on behaviour change in a range of settings, from early years to workplaces. NICE suggests that we need to develop interventions that make the environment conducive to healthy living, by ensuring we help people to become more physically active, to have healthier diets and by helping people to lose weight when they are ready to do so. This strategy and future action plans will need to be based on National guidance guidelines and the best available evidence of what works.

Derby already has a beacon status Healthy Schools project working with most schools across the city and strong interventions focused on physical activity through b-active. Both these initiatives are partnership focused and the challenge now, is to build on this and increase the quantity and quality of interventions designed to prevent and tackle obesity.

This strategy outlines some key actions that will be needed to drive the obesity strategy forward in Derby, they are:

- Establish the Derby Obesity Task Group as a focus for Obesity-related activity in Derby
- Undertake a stock take of the range of activity that already exists and contributes to obesity prevention or treatment.
- Consult on the establishment of a Derby Food Network
- Maintain and strengthen the Getting Derby Active / B-active partnership (physical activity)
- Secure partnership ownership of the childhood obesity targets and develop a partnership child obesity actions plan to tackle the increases in child obesity in Derby
- Pilot adult obesity interventions to help people who want to lose weight
- To help people make lifestyle changes by developing obesity as an integral part of PCT plans to develop a Lifestyle Change Service.
- Conduct training needs assessment and develop a training programme for all professionals working in the area of prevention and management of obesity

This strategy is, therefore, a starting point for Derby as we seek to find new and creative ways of tackling obesity.

## 2. Introduction

The World Health Organisation has described the rise in obesity as a global epidemic<sup>2</sup>. Since 1980 the prevalence of obesity has trebled in the UK<sup>3</sup>. In 2002, almost six out of ten women and seven out of ten men were overweight or obese<sup>4</sup>. If current trends continue, this may mean that today's children will have a shorter life expectancy than their parents<sup>5</sup>. It has been estimated that unless we take effective action, about one third of adults and one fifth of children aged 2-10 years will be obese by 2010<sup>6</sup>.

The rapid increase in levels of overweight and obesity has occurred in a time period too small for genetic changes to be the cause<sup>7</sup>. This means that the growing health problems are likely to be caused by behavioural and environmental changes in our society closely linked to health inequalities, with people from the lower socioeconomic groups most at risk.

This Strategy is intended to enable local organisations to work together to halt the year on year rise of overweight and obesity through the prevention, identification, treatment and management of obesity within the population of Derby City.

### 2.1. Background

Government strategies and Health Care Commission performance monitoring systems have focussed national and local organisations efforts on reducing the impact of overweight and obesity on the nation's health.

Chronologically the development of a cross-agency approach began in 1999 with the publication of Saving Lives to the National Institute for Health and Clinical Excellence Clinical Guidance 43 on Obesity in December 2006 and finally the national strategy Healthy Weight, Healthy Lives in 2008.

Saving Lives (1999)<sup>8</sup> aimed to reduce deaths in under 75 year olds from cancer, coronary heart disease and stroke by 2010, and identified overweight and obesity as important risk factors for these conditions. Saving Lives was supported by the publication of The NHS Plan: a Plan for Investment<sup>9</sup> in 2000. Within this strategy, improvements in diet and

nutrition were recognised as central to preventing deaths from heart disease and cancers. The plan also embraced health inequalities.

Disease specific strategies such as National Service Frameworks (NSFs), and The NHS Cancer Plan also incorporated actions relevant to obesity and weight management. The Coronary Heart Disease (CHD) NSF<sup>10</sup> (2000), required all NHS bodies to work closely with local authorities in delivering effective programmes to promote health and reduce overweight and obesity. In addition, the 2000, NHS Cancer Plan<sup>11</sup> reinforced the role of diet and nutrition in the development, prevention and management of the disease with specific local level recommendations for actions to tackle obesity.

Similarly, the Diabetes NSF<sup>12</sup>(2001), introduced interventions for the prevention and reduction in the population prevalence of overweight and obesity. Targeted work is focussed on individuals with an increased risk of developing type 2 diabetes, encouraging the adoption of a balanced diet and increased physical activity.

Three further strategies reinforced the role of organisations in addressing overweight and obesity. A Strategy for Sustainable Farming and Food (2002)<sup>13</sup>, stressed that Local Strategic Partnerships (LSPs) should use their influence to improve local nutrition and reduce food inequalities. Tackling Health Inequalities: A Programme for Action (2003)<sup>14</sup>, recognised poor diet as a key contributor to health inequalities and focuses on improving the diet of pregnant women, infants and the over fifties. In 2004, standard one of the NSF for Children, Young People and Maternity Services<sup>15</sup>, introduced a multi-agency Child Health Promotion Programme. All PCTs are to implement community-based programmes to address local and national public health priorities including nutrition and physical activity.

The principles of the previously described nine strategies underpin the implementation of Choosing Health: Making Healthy Choices Easier (2004). Choosing Health advocated the significance of national and local cross-agency action to address public health priorities. With regard to obesity and overweight, Choosing Health focused on training, management, provision of evidence based obesity prevention and treatment across NHS organisations. Other initiatives included were; implementing care pathways, developing patient activity questionnaires and national campaigns to raise awareness to the risks of obesity. The strategy also contained targets directly related to diet, nutrition and physical activity.

Recent National Institute for Health and Clinical Excellence Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and

children has been issued (2006)<sup>16</sup>. This has been summarised in the Evidence and Recommendations Section of this document.

*Healthy Weight Healthy Lives* (HWHL) is the latest Government document dedicated to the alarming rate of increase of obesity. The recent Foresight report estimated that by 2050, 60% of men and 50% of women could be clinically obese<sup>17</sup> and this has informed the Health weight Healthy Lives strategy and the long term ambition to reverse the rising tide of obesity and overweight.

The five central themes of the HWHL strategy are:

- Children – early prevention of weight problems.
- Food – reducing the consumption of foods that are high in fat, sugar and salt and increasing the consumption of fruit and vegetables.
- Physical Activity – getting people moving as a normal part of their day.
- Incentives – increasing the understanding and values that people place on the long-term impact of decisions.
- Advice and Support – complementing preventative care with treatment for those who already have weight problems

At a local level *Healthy Weight Healthy Lives* identifies a framework to follow:

- Understand the problem locally and set goals
- Establish local leadership
- Choosing effective interventions
- Monitor and evaluate
- Build local capabilities – staff training

The Derby strategy will build on the direction and guidance provided by *Healthy Weight Healthy Lives* to develop the local framework for action.

## 3. Targets, Aim, Principles and Objectives

### 3.1. Targets

The latest 'ambition' outlined by the Department of Health and the Department of Children, Schools and Families is as follows:

*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.<sup>18</sup>*

This has superseded the previous target, which was:

*Halt the year on year rise in obesity among children under 11 by 2010 (from the 2002-4 baseline) in the context of a broader strategy to tackle obesity in the population as a whole (Data source: health Survey for England: DH, DfES and DCMS are also exploring options for other sources of data to obtain more local-level information)*

## **3.2. Aim**

To reverse the rising tide of obesity and overweight in the population with a particular focus on childhood obesity

## **3.3. Principles**

The strategy is based on the following underlying principles:

- Partnership working with relevant agencies to ensure a consistent and co-ordinated approach
- Shared targets and objectives with partner agencies
- Agreement by all agencies to provide clear and consistent information
- The targeting of services and interventions at key groups with the aim of reducing health inequalities
- Ensure that services are developed with the involvement of patients, their carers and the public

## **3.4. Objectives**

- 3.4.1. Review existing activity to tackle obesity in Derby
- 3.4.2. Surveillance – ensure systems are in place to identify the prevalence of obesity in Derby City and to assist commissioning and service planning.
- 3.4.3. Evidence – ensure we have up to date evidence that will enable a co-ordinated evidence-based approach to the prevention, treatment and management of overweight and obesity.
- 3.4.4. Plan – set up partnership systems that will enable; the effective development of plans to address obesity in Derby

- 3.4.5. Action - Develop an agreed implementation plan that will enable the effective identification of resources and enable effective commissioning of obesity related interventions

## 4. The Scale of Obesity

### 4.1. Overweight and Obesity: The Causes

Foresight<sup>19</sup> summarised the complex range of factors that cause obesity as follow:

“...it is now generally accepted by health and other professionals that the current prevalence of obesity in the UK population is primarily caused by people’s latent biological susceptibility interacting with a changing environment that includes more sedentary lifestyles and increased dietary abundance.” ((p43)

A range of factors have been identified by Foresight and include:

- Biological factors – a number of specific genes have been linked with obesity, and the body has evolved to make sure that food and energy needs are met. However, the body has very “limited sensitivity to abundance” (p.46) is better able to take on excess food energy than to lose it..
- Early life factors – the period after birth is a time of “metabolic plasticity” (p47) and patterns set early in life can have a significant effect on the future development of an infant. This includes becoming more susceptible to obesity. Weaning is also regarded as significant.
- Behaviour – despite the lack of robust and objective measures for healthy eating and physical activity, Foresight suggests that “positive changes in diet and activity are likely to result in health benefit, both in relation to, and independent of, body weight.” (p.48)
- Psychology – Habits and beliefs affect behaviour as do the degree of control over lifestyle and perceived vulnerability to risk; environmental factors can reduce the control we have over how active we are and food is often consumed out of habit. Furthermore if people do not link obesity with health risk they will see no reason to change their behaviour. In a wider social context, psychological factors can be greatly influenced by others and make it extremely difficult to make changes to behaviour.
- Environmental factors - The evidence suggests that many environmental factors, like increased car use and television viewing, influence physical activity levels but the exact mechanisms that translate environmental factors into low activity, unhealthy dietary habits and increasing obesity, are unclear.

- Economic factors – Many factors including; the price of food and drink, food marketing practices, increased affluence and ability to purchase food, are believed to have a relationship with obesity.

In summary, the causes of obesity are many and varied, the consequence of which is that interventions to prevent and reduce obesity can be very complex to design and measure.

## 4.2. Benefits of Weight Loss in People who are Obese

For those people who are already obese even a modest weight loss can have great benefits. A 10kg (22lb) weight loss leads to a 20% fall in total mortality and a 10% reduction in total cholesterol<sup>20</sup>. *Table 1* below shows the benefits of weight loss associated with obesity.

<b>Risk</b>	<b>Benefit</b>
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% high density lipoprotein (HDL) cholesterol
Other benefits	Improved lung function, and reduced back and joint pain, breathlessness, and frequency of sleep apnea Improved insulin sensitivity and ovarian function

*Table 1. The benefits of a 10kg weight loss.<sup>21</sup>*

## 4.3. What is the Impact of Overweight and Obesity

The increasing prevalence of obesity and overweight is a modern public health phenomenon<sup>22</sup>. Evidence shows that since the 1980's the number of adults who are obese has trebled<sup>23</sup>. Currently in England over half of all adults are overweight or obese, this equates to almost 24 million adults.<sup>24</sup> It is estimated that if the current trends continue, over a third of adults will be obese by 2010. The impact of obesity on health, society and the economy is considerable.

It is estimated that people who are obese have a reduced life expectancy of nine years. Obesity and overweight is associated with increased risk of developing chronic diseases including: type 2 diabetes; CHD; high blood pressure; stroke; cancers; respiratory conditions; musculoskeletal problems and osteoarthritis. For example, the risk of developing CHD, or colon cancer is three times higher for people who are obese compared to those of a healthy weight. Also the risk of developing Type 2 diabetes is five (men) and 12.7 (women) times higher for people who are obese.

The physical effects of being overweight or obese are often compounded by psychological ones including depression, low self-esteem, binge eating and a sense of isolation. Research has failed to determine whether these psychological conditions are a cause or an outcome of obesity.

The Economic impact of obesity and overweight has been best summed up by the Foresight report which "estimated that the direct healthcare costs for the treatment of obesity alone and its consequences were between £991 million and £1,124 million in 2002, equating to 2.3–2.6% of NHS expenditure (2001/2002)." Foresight went on to suggest that the economic cost of obesity is likely "to grow significantly in the next few decades". In 2002 "The House of Commons Health Select Committee estimated that the total annual cost of obesity and overweight for England in 2002 was nearly £7 billion." This includes the direct and indirect costs<sup>25</sup>.

## 4.4. What is the Pattern of Overweight and Obesity?

The World Health Organisations estimates that around 58% of Type 2 Diabetes, 21% of Heart Disease and between 8 – 42% of certain cancers are attributable to excess body fat.<sup>2</sup>

It is estimated that a practice with 10,000 patients will expect to see 80 new obese patients each year.

According to latest figures (2005), 22.1% of men and 24.3% of women are obese and almost two thirds of all adults (approximately 31 million adults) are either overweight or obese. The proportion who are severely (morbidly obese (with a BMI of over 40kg/m<sup>2</sup>) is 0.9% in men and 2.7% in women.

These crude percentages can be applied to the Derby population; Diagram 1 highlights the estimated prevalence of obesity in Derby.

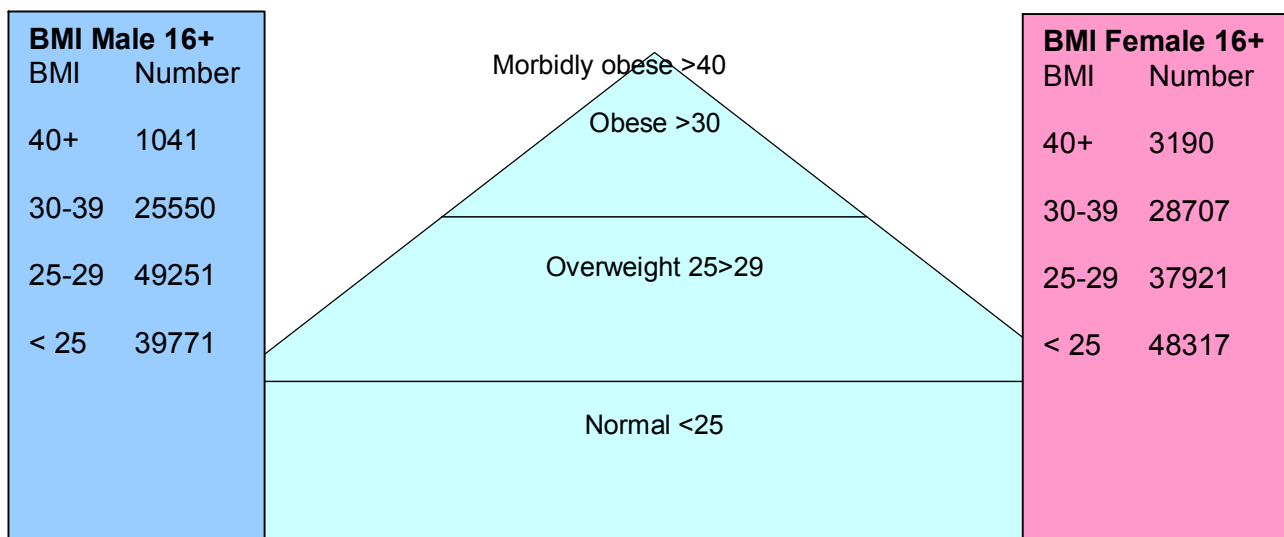


Diagram 1: Estimated Range of BMI in Derby

### 4.4.1. Childhood

Although people are more likely to be overweight or obese in adulthood, the rising level in childhood and adolescence is a public health concern.

The social implications of rising childhood obesity are not yet fully understood, although studies have shown that in their adult life obese or overweight teenagers are less likely to be married, and more likely to earn a lower income - 7.4% less than their non-obese peers<sup>26</sup>.

Obesity and overweight in children is usually measured using the National BMI percentile classification. This is translated for children, aged 0-11 years, by age group and gender. This classification provides a reference point derived from UK population data. Children who are overweight are classified using the 91<sup>st</sup> BMI percentile and those who are obese fall into the 98<sup>th</sup> BMI percentile, (see *Appendix 1*, for table showing the National BMI percentile classification). This is the most recognised measure of obesity and overweight in childhood currently used in the UK.

Between 1995 and 2003, the percentage of children, aged two to 10 years old that were obese increased from 9.9% to 13.7%. This increase in obesity prevalence was most significant amongst children aged 8-10 years, rising from 11.2% in 1995 to 16.5% in 2003, an increase of 5.3%.

This increase in children who are obese is coupled with an increase in the number of children who are overweight and therefore at risk of becoming obese. For children aged between 2 and 10 years, 5% more children were overweight in 2003 compared to 1995, 22.7% and 27.7% respectively. The trends between boys and girls although similar, are slightly higher among boys.

Data published in the Health Survey for England 2002 Report, show the levels of obesity for adolescents aged 11-15 years are similar to those shown for 8-10 year olds.

### **The Childhood Measurement Programme in Derby**

Body Mass Index (BMI) is a widely used and accepted measure in determining obesity in adults and is calculated by dividing weight (kg) by height<sup>2</sup> (m). It is harder to define obesity in children using this measure, as BMI varies markedly with age, gender and ethnicity, but it is the most practical measure for epidemiological analysis.

The Department of Health will use BMI percentile cut-off points to classify children into categories of underweight, normal, overweight and obese although the exact

ranges cannot be provided to PCTs due to contractual agreements. However, BMI percentile reference curves have been produced for defining obesity in children and these have been used to calculate BMI percentile cut-off points for local analysis purposes (see Table 1).

Method	Centile	Category	BMI (kg/m <sup>2</sup> ) ranges for children aged 4.5yrs		BMI (kg/m <sup>2</sup> ) ranges for children aged 10.5yrs	
			Girls	Boys	Girls	Boys
National BMI Percentile Classification	99 <sup>th</sup>	Morbidly Obese	≥ 20.7	≥ 20	≥ 27.1	≥ 25.6
	98 <sup>th</sup>	Obese	19.1 – 20.6	18.6 – 19.9	23.5 – 27.0	22.1 – 25.5
	91 <sup>st</sup>	Overweight	17.7 – 19.0	17.5 – 18.5	20.9 – 23.4	19.9 – 22.0
		Normal	14.0 – 17.6	14.3 – 17.4	14.8 – 20.8	14.7 – 19.8
	9 <sup>th</sup>	Underweight	13.4 – 13.9	13.8 – 14.2	13.8 – 14.7	13.8 – 14.6
	2 <sup>nd</sup>	Very underweight	≤ 13.3	≤ 13.7	≤ 13.7	≤ 13.7

*Table 2: BMI ranges used to calculate categories of weight*

As part of a shared programme between the Department for Education and Skills and the Department of Health, guidance for PCTs published in January 2006 outlined the new annual requirement to measure the height and weight of all children in Reception (ages four to five) and Year 6 (ages ten to 11) attending maintained primary schools within the PCT area.

In Summer Term of 2006, 2007 and 2008, all children in Reception and Year six children across Derby City PCT were weighed and measured.

From this information we were able to calculate and categorize individual Body Mass Index (BMI), which is a height and weight ratio. Collectively these findings identified the following BMI distribution for both Reception and Year six children across the city and county:

As can be seen in table 3, in Derby City, the National Childhood Monitoring Programme (NCMP) data there have been significant changes in the proportion of children who are overweight, obese and morbidly obese between years. It is too

early to draw conclusions about trends although we can say that between one in five and one in four children are believed to be overweight or obese.

	Reception Children							
	2005/06		2006/07		2007/08		06/07-07/08 diff.	
	No.	%	No.	%	No.	%	No.	%
Very Underweight	58	4.5%	44	1.8%	62	2.5%	18	0.7%
Underweight	54	4.2%	83	3.4%	115	4.6%	32	1.2%
Normal	988	76.1%	1794	74.3%	1945	77.9%	151	3.6%
Overweight	115	8.9%	280	11.6%	231	9.2%	-49	-2.3%
Obese	42	3.2%	118	4.9%	79	3.2%	-39	-1.7%
Morbidly Obese	42	3.2%	97	4.0%	66	2.6%	-31	-1.4%
Obese/Morbidly Obese	84	6.5%	215	8.9%	145	5.8%	-70	-3.1%
Overweight/Obese	199	15.3%	495	20.5%	376	15.1%	-119	-5.4%

	Year 6 Children							
	2005/06		2006/07		2007/08		06/07-07/08 diff.	
	No.	%	No.	%	No.	%	No.	%
Very Underweight	15	1.1%	21	0.9%	40	1.6%	19	0.7%
Underweight	38	2.9%	68	2.9%	103	4.0%	35	1.1%
Normal	858	65.5%	1519	64.9%	1742	67.7%	223	2.8%
Overweight	190	14.5%	361	15.4%	368	14.3%	7	-1.1%
Obese	136	10.4%	250	10.7%	206	8.0%	-44	-2.7%
Morbidly Obese	72	5.5%	122	5.2%	116	4.5%	-6	-0.7%
Obese/Morbidly Obese	208	15.9%	372	15.9%	322	12.5%	-50	-3.4%
Overweight/Obese	398	30.4%	733	31.3%	690	26.8%	-43	-4.5%

	Total – all children							
	2005/06		2006/07		2007/08		06/07-07/08 diff.	
	No.	%	No.	%	No.	%	No.	%
Very Underweight	73	2.8%	65	1.4%	102	2.0%	37	0.6%
Underweight	92	3.5%	151	3.2%	218	4.3%	67	1.1%
Normal	1846	70.8%	3313	69.6%	3687	72.7%	374	3.0%
Overweight	305	11.7%	641	13.5%	599	11.8%	-42	-1.7%
Obese	178	6.8%	368	7.7%	285	5.6%	-83	-2.1%
Morbidly Obese	114	4.4%	219	4.6%	182	3.6%	-37	-1.0%
Obese/Morbidly Obese	292	11.2%	587	12.3%	467	9.2%	-120	-3.1%
Overweight/Obese	597	22.9%	1228	25.8%	1066	21.0%	-162	-4.8%

Table 3 National Childhood Monitoring Programme figures for 2006, 2007 & -2008

## 4.4.2. Adults

The pattern of obesity varies across different demographic groups. Gender, age, ethnicity and socio-economic status, all contribute to the risk of becoming obese or overweight.

Body Mass Index (BMI) may be a less accurate measure of adiposity in adults who are highly muscular, so BMI should be interpreted with caution in this group. Some other population groups, such as Asians and older people, have co morbidity risk factors that would be of concern at different BMIs (lower for Asian adults and higher for older people). Healthcare professionals should use clinical judgement when considering risk factors in these groups, even in people not classified as overweight or obese.

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

## 4.4.3. Gender

The pattern of obesity and overweight differs between the genders, typically women are more likely to become obese after the menopause and for men the onset is progressive. Recent evidence shows that the increase in prevalence has been seen more amongst men than women. In 2001, although obesity was at similar levels for both men and women, nearly half of men were considered overweight compared with a third of women.

The proportion of men with a desirable BMI (over 18.5 to 25) decreased by 9.8% between 1993 and 2003, from 37.8% to 28%. Furthermore the proportion of men categorised as obese increased from 13.2% in 1993 to 22.9% in 2003. The mean hip to waist ratio among men increased from 0.90 to 0.93, between 1993 and 2003.<sup>27</sup>

Amongst women, the proportion with a desirable BMI decreased by 7%, between 1993-2003, from 44.3% to 37.3%. The proportion of women categorised as obese increased from 16.4% in 1993 to 23.4% in 2003. The mean hip to waist ratio for women had a similar increase as men with a mean increase of 0.3 between 1993 to 2003.

Evidence suggests that other than age of onset, there is no considerable difference between the genders in the risk of becoming overweight or obese.

#### 4.4.4. Age

The prevalence of obesity varies between age groups with the likelihood of being overweight or obese increasing with age. From age 35 years the number of people with a BMI of 25 or over increases considerably<sup>28</sup>.

#### 4.4.5. Social Class

There are large social class differences particularly in women. For instance 14% of men and women in professional groups are obese compared with 28% of women and 19% of men in unskilled groups. Obesity is also higher in Black Caribbean women and Pakistani women.

#### 4.4.6. Measuring Adults

From 2006/7, as part of the Quality and Outcomes Framework (QOF), GP practices are required to record BMI data within their records. The following information is a snapshot of practice data, based on data collected in the first quarter of 2008/09, and shows the recorded levels of obesity in Derby.

Practice Population (age 16+)	BMI recorded in last 15 months	BMI 30+	% of practice population Recorded	% obese, of those with a BMI recorded	% obese of whole practice pop
233,964	86,295	24,171	36.88%	28%	10.3%

*Table 4: Number of people aged 16+ with a BMI recorded, by practices in the past 15 months. Derby City (2008/09, April-June)*

As highlighted, there are a total of 233,964 patients aged 16 and over, registered in Derby. Of these 24,171 have a BMI over 30 and are classified as obese.

An alternative way of estimating adult obesity is to use the ready-reckoner provided in the National Heart Foundation document "Lightening the Load". The formulae are based on national data from the Health Survey for England 2004 and 2003 which suggest an adult obesity rate for Derby of 23%.

Age	PCT Practice Population		Estimate of number of people who are obese		Estimate of number of people who have a raised waist circumference	
	Male	Female	Male	Female	Male	Female
16-24	18464	18464	1477	2216	1662	3877
25-34	22070	19894	4193	3780	4414	5968
35-44	23480	21312	6340	5328	7044	7885
45-54	18607	17255	5210	4831	7071	7247
55-64	15527	14810	4503	4147	6366	7553
65-74	10404	11275	2913	3834	5098	6878
75+	8417	12559	1431	3265	3872	7033
<b>Sub-total</b>	<b>116969</b>	<b>115569</b>	<b>26067</b>	<b>27401</b>	<b>35526</b>	<b>46442</b>
Total	232538		53467		81968	

*Table 5: Obesity Prevalence Ready-Reckoner: - Derby City PCT practice population, adults aged 16+*

Age	PCT City Population		Estimate of number of people who are obese		Estimate of number of people who have a raised waist circumference	
	Male	Female	Male	Female	Male	Female
16-24	15779	15293	1262	1835	1420	3212
25-34	19657	17425	3735	3311	3931	5228
35-44	20178	18141	5448	4535	6053	6712
45-54	15781	14496	4419	4059	5997	6088
55-64	12929	12321	3749	3450	5301	6284
65-74	8830	9606	2472	3266	4327	5860
75+	7272	10967	1236	2851	3345	6142
<b>Sub-total</b>	<b>100426</b>	<b>98249</b>	<b>22322</b>	<b>23307</b>	<b>30374</b>	<b>39524</b>
Total	198675		45629		69899	

*Table 6: Obesity Prevalence Ready-Reckoner: - Derby City Local Authority Boundary, adults aged 16+*

Source of Population: NSTS (National Strategic Tracing Service) snapshot dated 30/09/2007  
Source: The formulae are based on the Health Survey for England 2005. The formula for waist circumference are based on the Health Survey for England 2003

## 5. Evidence and Recommendations

NICE (2006) provide comprehensive recommendations on obesity and these can be found at <http://www.nice.org.uk/guidance/index.jsp?action=byID&o=11000>.

### 5.1. NICE recommendations a brief summary

The guidelines make it clear that obesity prevention and management should be a priority for health professionals and managers within the NHS and in Local Authorities. Moreover, the NHS and Local Authorities should be expected to take a leadership role and set an example by offering preventative interventions to their workforce

The guidelines suggest that multi-component interventions and tailored support are required at local levels in a wide variety of venues and locations. In particular prevention and treatment interventions must be targeted at:

- Early Years
- Schools
- Workplaces
- Community Settings
- Healthcare settings

NICE recommend that the focus of initiatives to tackle obesity should focus on **behaviour change** and in particular focus on **diet and physical activity** by balancing calories in (diet) with calories out. (physical activity).

### 5.2. NICE: Key priorities for implementation

The key priorities outlined by NICE are reproduced below:

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

## **Public health**

### *NHS*

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

### *Local authorities and partners*

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

### *Early years settings*

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

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<sup>1</sup>see [www.cwt.org.uk](http://www.cwt.org.uk)

### *Schools*

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

### *Workplaces*

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

### *Self-help, commercial and community settings*

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

## **Clinical care**

### *Children and adults*

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

### *Children*

- *Interventions for childhood overweight and obesity should address lifestyle within the family and in social settings.*
- *Body mass index (BMI) (adjusted for age and gender) is recommended as a practical estimate of overweight in children and young people, but needs to be interpreted with caution because it is not a direct measure of adiposity.*
- *Referral to an appropriate specialist should be considered for children who are overweight or obese and have significant co morbidity or complex needs (for example, learning or educational difficulties).*

### *Adults*

- *The decision to start drug treatment, and the choice of drug, should be made after discussing with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements and their potential impact on the patient's motivation. When drug treatment is prescribed, arrangements should be made for appropriate health professionals to offer information, support and counselling on additional diet, physical activity and behavioural strategies. Information about patient support programmes should also be provided.*
- *Bariatric surgery is recommended as a treatment option for adults with obesity if all of the following criteria are fulfilled:*
  - *they have a BMI of 40 kg/m<sup>2</sup> or more, or between 35 kg/m<sup>2</sup> and 40 kg/m<sup>2</sup> and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight*

- *all appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months*
- *the person has been receiving or will receive intensive management in a specialist obesity service*
- *the person is generally fit for anaesthesia and surgery*
- *The person commits to the need for long-term follow-up.*
- *Bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m<sup>2</sup> in whom surgical intervention is considered appropriate.*

## 6. What is happening locally?

### 6.1. Physical Activity

The Getting Derby Active Action Plan produced in 2005 has recently evolved into the b-active workstream. Based on an LPSA2 target to increase activity levels in children aged 5-15 research has been undertaken which indicates that 57% of children do not achieve 1 hour of physical activity per day. B active is a response to local concern about activity levels and is a multi-faceted plan that engages schools, parents, young people and communities to increase activity levels.

Targets for Physical Activity are included in the PCT 5 year strategic plan and the LAA and includes specific targets for adults and children

Currently the PCT and Sport and Leisure are discussing options for re-developing health referral schemes linked to healthy living and weight management.

The Healthy Schools Programme was a beacon project and 25% of schools working toward healthy schools status are working on physical activity. A physical activity enhancement has been produced for schools that are already healthy schools and close working relationships have been developed with the b-active team and the School Sports Partnership

There are also a wide range of activities already in place across Derby, these include:

- Cycle Derby activities – Derby is a Cycle demonstration Town

- Walking groups exist across Derby and walk leader training is provided
- Walking buses and walking / cycling to school
- Derbyshire Wildlife Trust and Groundwork Trust are developing environmental projects across Derby
- Derby County Football Club school and community activities

## 6.2. Healthy Eating

At the moment, there is no partnership group in place to provide strategic direction in the area of healthy eating across Derby. It is proposed to develop a Food and Health forum linked to the Obesity Task Group and the Health City, Health Improvement sub group Public Health Forum.

The PCT employs a Community Nutritionist who provides staff training, liaison with School Catering and who works with local communities to train and develop local initiatives around healthy eating.

The PCT employs a breastfeeding coordinator to promote and prolong breastfeeding of new born children.

The Healthy Schools team supports schools to develop healthy eating as part of the healthy schools programme and have offered particular projects, to schools, around healthy lunchboxes, school nutrition action groups and healthy tuck-shop's.

There are activities that relate to healthy eating across Derby these include:

- Food for life partnership
- The school meals service has implemented changes to school meals and introduced salad bars in schools across the city

## 6.3. Weight Management/Reduction

There is no formal intervention for weight management in Derby at present although preventing and treating obesity is included in the 5 year strategic plan. This has been recognised as a gap and initiatives are being developed. In particular, the Counterweight Programme for obesity management in primary care, which is currently being piloted by 5 practices.

The PCT is also developing options for child obesity interventions and healthy living services as part of the strategic plan.

Some examples of motivational support exist already in the City and include

- Best Beginnings parent's programmes in Derwent
- Lifestyle advice for the public provided by community nursing staff
- Fitstar parents workshops in Children's Centres.

## 6.4. Prescribing

The total cost of prescribing of anti-obesity drugs has been increasing in Derby. This is shown in the table below.

Costs	Orlistat	Sibutramine	Rimonabant	Total
2005/6	£103907	£40814	£0	£144721
2006/7	£142258	£51046	£3652	£196956
2007/8 ( predicted)	£149187	£53316	£5216	£217050
	estimate	Estimate	Estimate	estimate

*Table 9: Prescribing Costs of Anti-obesity Drugs 2005-2008 - Derby City PCT*

- There has been a 34% rise in items and 36% rise in cost from 2005/06 to 2006/07.
- Current estimates suggest a 15% rise in items and 10% rise in costs from 2006/07 to 2007/08

Audit work in the City has estimated that 50% (70% estimate in Derbyshire) of prescribing was not cost effective i.e. not following NICE guidance and/or patient's were not losing weight. The estimated costs of ineffective prescribing are represented in the following table:

	70% ineffective prescribing	50% ineffective prescribing
2005/6	£101305	£72,360
2006/7	£137869	£98,478
2007/8	£151935	£108,525

*Table 10: The estimated costs of ineffective prescribing 2005-2008 - Derby City PCT*

There are also considerable differences in prescribing between practices in Derby City taking into account differences in population list size and age and sex of patients.

## 6.5. Morbid Obesity

Obesity surgery is provided at Derby Hospital for people with a BMI of 40 or over, or between 35 and 40 if there are significant co-morbidities. If we take estimates given in section 4.4 then 4231 people in Derby may have a BMI in excess of 40 kg/m<sup>2</sup>, based on the 2001 household survey prevalence estimates. The demand for obesity surgery is certain to rise if current trends in obesity prevalence in Britain continue.

Therefore it is essential to develop effective services for treating and managing severely obese patients. The Institute For Health and Clinical Excellence recommends bariatric surgery as a treatment option for people with obesity if all of the stated criteria are fulfilled and as a first line option for those with a BMI over 50 kg/m<sup>29</sup>. NICE guidance forms the basis of the local service specification for the provision of Obesity surgery.

Guidance published by the National Institute for Health and Clinical Excellence in 2006 strongly recommends the use of multi-component interventions delivered by multidisciplinary teams (MDT). It is also recommended that MDT should comprise of staff that have specialist knowledge and are trained specifically to manage and treat obesity. Currently local services are not adequately developed with the appropriately trained staff to provide the level of support as set out in the National Institute for Health and Clinical Excellence guidance to individuals who are obese or severely obese.

The report therefore, recommends that Primary Care Trusts (PCT) develop obesity related services and interventions that are evidence based and have in place an integrated obesity specialist services across both primary and secondary care to support and manage those who are eligible for surgery. Crucial to this will be the development of pathways.

## 7. Action

### 7.1. Gaps

Following the consultation phase for the strategy a number of delivery gaps have been identified. The gaps can be summarised as follows:

- 7.1.1. Knowledge - There are already many activities in Derby that could potentially prevent a rise in population obesity, many of these are mentioned in section 6. However, the extent and effectiveness of these is largely unknown. A thorough

review of activity is required to ensure strategic planning and coordination of obesity initiatives

7.1.2. Outcomes and evaluation - Many of activities have an impact on are intuitively perceived as obesity prevention initiatives but they are small scale and tend not to be focused on the prevention of obesity specifically. It is not clear what impact many of these initiatives have and how they impact on the health of the population of Derby. Effective evaluation could enable decisions to be made about up-scaling effective projects and help build an evidence base.

7.1.3. Marketing– currently there is no programme to inform, educate or communicate with people in Derby about obesity. A coherent social marketing behaviour change programme that raises awareness of the scale of obesity, the health risks of obesity and how to prevent or tackle obesity is required. An obesity champion could act as a focus for initiatives in the City.

7.1.4. Coordination – there is a limited partnership between public sector bodies to tackle obesity, this needs strengthening. Other private sector partners also need to be included for example food manufacturers and supermarkets.

7.1.5. Resources – resources specifically designed to address obesity are limited and many initiatives are based on small or short term external funding. Similarly, many do not have objectives specific to the reduction or prevention of obesity. Both staff resources and financial resources to address obesity are required.

7.1.6. Child obesity – child obesity is perceived as the most important element of an obesity strategy and should be prioritised. Engaging parents is seen as a critical step in this process to expand on work that is already happening in schools and communities.

## 7.2. A Framework for Action

The following diagram is a commonly used model for describing the elements needed to tackle obesity. At the moment services are provided at the top of the pyramid and a range of community based activities are provided at the base. There is a gap in provision at tier 3 and 4 in particular.

Actions will need to be developed at all levels of this pyramid and detailed action plans will need to be developed using this as a template.

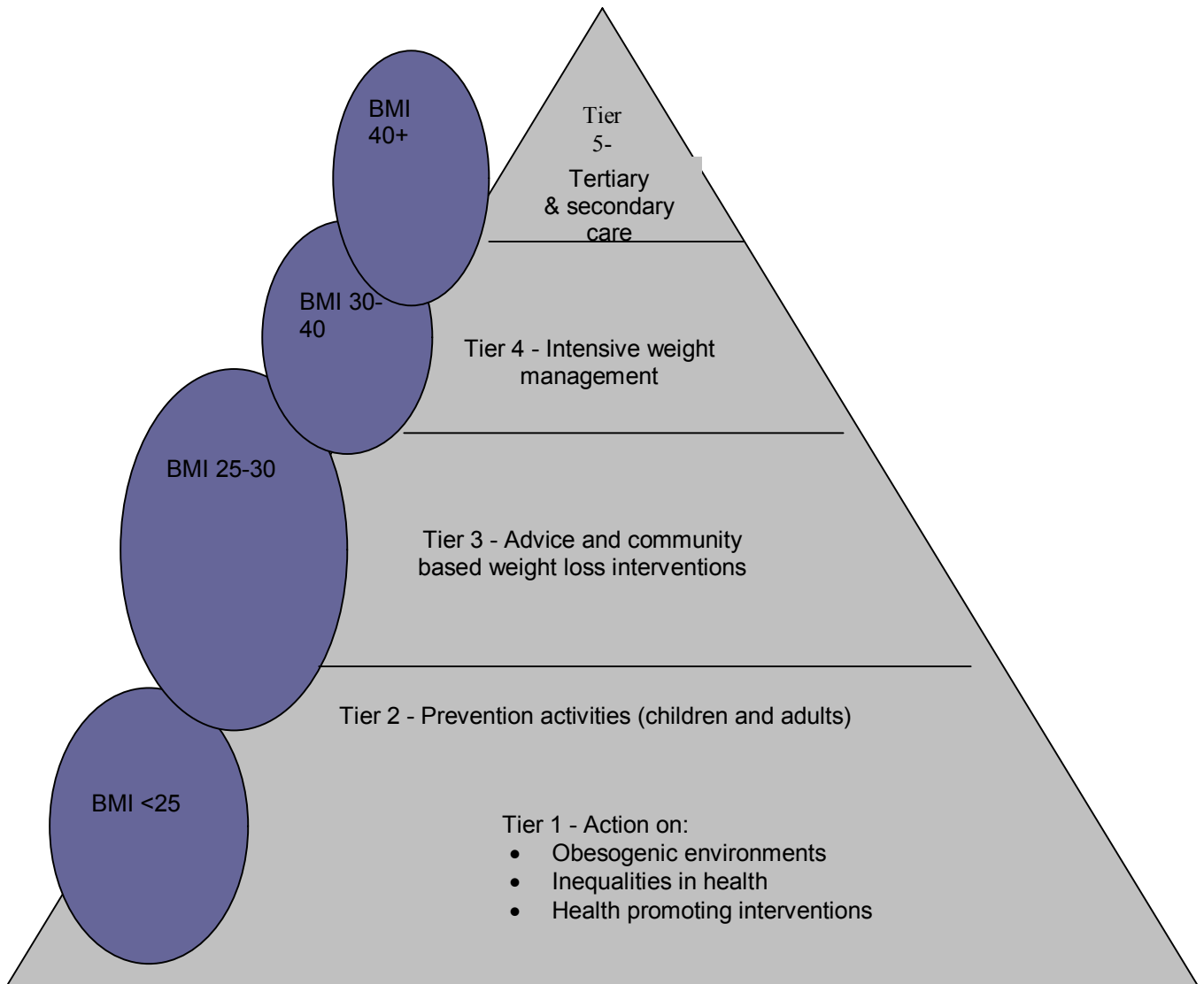


Diagram 2: A tiered approach to obesity

### 7.3. Strategic Action Plan

Effective implementation of this strategy can only be brought about by the production of an agreed partnership action plan that identifies priorities, targets, resource requirements and timescales. This action plan identifies high level actions only, and will need to be developed further to enable more detailed action plans put into place.

1.	Establish the Derby Obesity Task Group as a focus for Obesity-related activity in Derby	<ul style="list-style-type: none"> <li>▪ To act as the focus for Obesity within the PCT and wider partnership Act as a vehicle for the coordination of all relevant activities across Derby City Partnership including/lead through clear links between Healthy City Executive, City for Children &amp; Young People and Cultural</li> </ul>
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		<p>City'</p> <ul style="list-style-type: none"> <li>▪ To act as a focus for commissioning proposals</li> <li>▪ To champion the development of obesity pathways in Derby</li> <li>▪ To monitor activity e.g. NCMP</li> <li>▪ To prioritise childhood obesity</li> <li>▪ To develop a detailed comprehensive obesity action plan for Derby which includes Physical Activity and Food and Health</li> </ul>
2.	Undertake a stock take of the range of activity that already exists and contributes to obesity prevention or treatment.	<ul style="list-style-type: none"> <li>▪ To quantify activity</li> <li>▪ To identify gaps in provision</li> <li>▪ To inform evaluation</li> </ul>
3.	Consult on the establishment of a Derby Food Network	<ul style="list-style-type: none"> <li>▪ To develop audit food policies and activity in Derby</li> <li>▪ To develop a Derby Food implementation /action plan.</li> </ul>
4.	Maintain and strengthen the Getting Derby Active / B-active partnership (physical activity)	<ul style="list-style-type: none"> <li>▪ Link physical activity work to obesity task group</li> </ul>
5.	Secure partnership ownership of the childhood obesity targets and develop a partnership child obesity actions plan to tackle the increases in child obesity in Derby	<ul style="list-style-type: none"> <li>• Framework paper to be tabled for PCT, CYP Board &amp; Partners</li> <li>• Implementation of the NCMP</li> <li>• Child Obesity services (MEND)</li> <li>• Staff training / workforce development</li> <li>• Marketing especially to parents</li> <li>• Targeted approaches</li> <li>• Early Years</li> </ul>
6.	Pilot adult obesity interventions to help people who want to lose weight	<ul style="list-style-type: none"> <li>▪ Counterweight</li> </ul>
7.	To help people make	<ul style="list-style-type: none"> <li>▪ Pilot Lifestyle Team approach</li> </ul>

	lifestyle changes by developing obesity as an integral part of PCT plans to develop a Lifestyle Change Service.	
8.	Conduct training needs assessment and develop a training programme for all professionals working in the area of prevention and management of obesity	<ul style="list-style-type: none"> <li>• In line with Long Term Conditions work</li> </ul>

Implementation of the strategy will be based on actions that arise from the obesity audit and needs assessment data available to the PCT. Key process actions are included in section 7 but this will need to be developed into a more comprehensive action plan. Implementation will be monitored by the Derby Obesity Task Group.

## 8. Performance Monitoring Framework

Routine monitoring will be undertaken by the Obesity Task Group and will feed directly to the Public Health Forum and to the Healthy City executive.

## 9. Implementation and Review

The strategy will be subject to review bi-annually

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