Haringey NHS
Teaching Primary Care NHS Trust

Haringey Obesity Strategy 2007-2010

Written by

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Acknowledgements

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INTRODUCTION

This Strategy has been developed to address the local problems of overweight and obesity. The purpose of this document is to offer practical guidance for the prevention, management and treatment of obesity in children and adults within Haringey with the aim of reducing health inequalities and ill-health. It outlines the current position in relation to obesity within Haringey, the desired goal of halting the rise in obesity prevalence and the actions required to achieve this goal based on current evidence. The strategy has been developed with contributions from a range of partners, who together have mapped current activities and services, which has assisted in identifying gaps in service provision and highlighted the key actions. This document is linked, to both national and local strategies and targets, including the Sport and Physical Activity Strategy, Food and Nutrition Strategy, Infant Mortality Strategy (currently in draft form), Breastfeeding Strategy (currently in draft form) and the Healthy Early Years document.

AIMS AND OBJECTIVES

The overall purpose of the strategy is to reduce the burden of death, disability and distress due to overweight and obesity in the population served by Haringey Teaching PCT adopting a population wide approach with targeted work with at risk groups and individuals who are overweight and obese. The two broad approaches are to prevent overweight and obesity developing in the community and to manage existing cases of obesity.

Aims:-

- To understand the local trends in overweight and obesity
- To prevent overweight and obesity developing in the community
- To manage existing cases of overweight and obesity

Objectives

- To collect and analyse local data about the prevalence of overweight and obesity in adults and children
- To promote healthy eating and physical activity to adults and children
- To further develop a range of interventions to prevent overweight and obesity in

children and young people to halt the year on year rise in obesity in under 11 year olds by 2010

- To further develop a range of interventions to prevent overweight and obesity in adults
- To provide access to weight management programmes for adults and children, particularly for the disadvantaged
- To provide care pathway guidelines for the prevention, treatment and management of obesity in adults and children
- To promote the importance of maintaining a healthy weight throughout adulthood
- To ensure strategic planning includes focusing on obesity prevention
- To lobby for policy change for the creation of community contexts that enable improved health

BACKGROUND

Identifying and measuring overweight and obesity

Overweight and obesity are conditions in which excess body fat has accumulated to an extent that health may be adversely affected.

Adults

Overweight and obesity are commonly defined by Body Mass Index (BMI), which is calculated by dividing an individual's weight in kilograms by the square of their height in metres (kg/m2).

Table 1: NICE Classification of overweight and obesity in adults

Weight class	BMI = wt(kg)/ht(m)^2
Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25 – 29.9
Obese	30 – 39.9
Morbidly Obese	>40

Source: National Institute for Health and Clinical Excellence (2006)[1]

However, BMI 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. For this reason it is suggested that other methods of measurements,

particularly waist circumference and waist-hip ratio, be used to find out more about the proportion and distribution of body fat.

Waist circumference

Waist circumference is used to assess abdominal fat mass or central fat distribution and is linked to disease risk such as coronary heart disease and type II diabetes. This measure may be used in people with a BMI less than 35kg/m2, in addition to BMI, to assess health risks[1]. The current waist circumference thresholds used to assess health risks in the general population are shown in Table 2.

Table 2: Waist Circumference thresholds for the general adult 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) [1],International Diabetes Federation (2005)[2], WHO/IASO/IOTF (2000)[3], and World Health Organisation (2000)[4]

Different waist circumference cut-offs for different groups have been proposed by the World Health Organisation and the International Diabetes Federation because ethnic populations differ in the level of risk associated with a particular waist circumference. However, 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.

Waist-hip ratio (WHR)

WHR measures body fat distribution. It is defined as waist circumference divided by hip circumference, ie. waist girth (in metres) divided by hip girth (in meters). Although there is no consensus about appropriate WHR thresholds, a raised WHR is commonly taken to be 1.0 or more in men and 0.85 or more in women[1,3].

The Department of Health[5] and NICE [1] do not recommend the use of waist-hip ratio as a standard measure of overweight or obesity. The Department of Health suggest that BMI should be routinely measured, combined with waist circumference and body shape assessment, as together they provide the best indicator of obesity and associated health risks[5].

Children

The measurement of overweight and obesity in children is complicated. There is no universally accepted BMI-based classification system for childhood obesity. The UK 1990 BMI growth reference charts, which give age and gender specific information, are commonly used to define overweight and obesity in children. The 91st and 98th centile for overweight and obesity are recommended cut-off points for individual children. NICE recommends that waist circumference should not be used as a means of diagnosing childhood obesity. However, it may be used to give additional information on the risk of developing health problems[1].

Causes and consequences of overweight and obesity

The purpose of this strategy is not to carry out a full appraisal of the overall impact of obesity as this has been described in numerous government documents. Genetic factors play a part in causing overweight and obesity. However, the rate of the rise in the prevalence of overweight and obesity has been too fast to be explained by these factors alone. It is, therefore, likely to be due to environmental and behavioural changes which have lead to more sedentary lifestyles and energy-dense diets[6]. Healthy eating and increased physical activity are primary solutions to preventing and overcoming overweight[7].

Obesity can severely impact on quality of life. Excess body weight predisposes an individual to numerous health problems including respiratory difficulties, musculo-skeletal problems and infertility, to the more serious cardiovascular problems (hypertension, stroke and coronary heart disease), diabetes, gallbladder disease, certain cancers (breast, endometrial and colon) and contributes to a reduced life expectancy[8]. Obesity can also cause psychological and social problems, particularly in children. Children who are overweight are much more likely to be overweight as adults and experience health problems[9] . The most significant predictor of childhood obesity is parental obesity (obesity in a parent increases the risk of childhood obesity by 10%)[10].

The scale of the problem

Obesity is a condition in which weight gain has reached the point of seriously endangering health[6]. It is extremely prevalent and is a major cause of ill-health and premature death. Obesity is responsible for 30,000 deaths a year in England, of which

9,000 are premature deaths. In the UK the prevalence of obesity has more than doubled in the last 25 years. Nearly a quarter of adults are now obese and it is estimated that by 2050, the vast majority of the UK population could be mainly obese, with some 40% obese by 2025 and nearly 60% obese by 2050[11].

The prevalence of overweight and obesity in children has increased at an alarming rate in recent years and this marked increase is predicted to continue if appropriate action is not taken. In the UK approximately 10% of children are now obese, with a further 20%-25% of children overweight. Such increases may mean that today's children have a shorter life expectancy than their parents[10]. To-date no country has been successful in reducing the prevalence of obesity.

The local picture

Estimates from the 2003 Health Survey for England indicate that approximately 60% of the adult population in Haringey is either overweight or obese. However, this data must be reviewed with caution as the sample may not be representative of the Haringey population. Applying this to the Greater London Authority Population Projections (2006) it is estimated that 107,738 adults in Haringey may be either overweight or obese.

Table 3: Estimates of Overweight and Obesity levels in Haringey

	Overweight	Obese	Overweight and obese
Males	43%	22%	65 %
Females	33%	23%	56%
Average	38%	22.5%	60.5%

Source: Greater London Authority Population Projections (2006)[12]

Recent data collected from GP practices found that 13.62% of those registered to a GP were classified as obese. This figure, extrapolated to the registered population in Haringey of 206,664, suggest that 28,148 people aged 17-74 are obese.

Children across Haringey were surveyed in the summer of 2006 and 2007 in schools as part of the annual Department of Health National Child Measurement Programme. An 87.5% and 82% response rate was achieved for the respective years. The survey findings revealed that obesity levels have increased by approximately 2% in children aged 4-5 years and 10-11 years (See Tables 4 and 5 below). Figures 6 and 7 show

childhood obesity rates for Reception and Year 6 by Ward.

Table 4: National Child Measurement Programme Results – 2006*

		Overweight	Obesity	% Measured
Reception Year (4-5 years)	**Haringey**	**12.8%**	**10.5.%**	**88%**
Year 6 (10-11 years)	**Haringey**	**15.0%**	**21.5%**	**87%**

*Figures based on local data

Table 5: National Child Measurement Programme Results – 2007

		Overweight	Obesity	% Measured
Reception Year (4-5 years)	**England Average**	**13.0%**	**9.9%**	**83%**
	Haringey	**12.5%**	**12.9%**	**88%**
Year 6 (10-11 years)	**England Average**	**14.2%**	**17.5%**	**78%**
	Haringey	**14.5%**	**23.8%**	**76%**

Source: Department of Health (2008). National Child Measure Programme Results – 2006/07[13]

Figure 6: Childhood obesity Rates by Ward – Reception Year (2007)

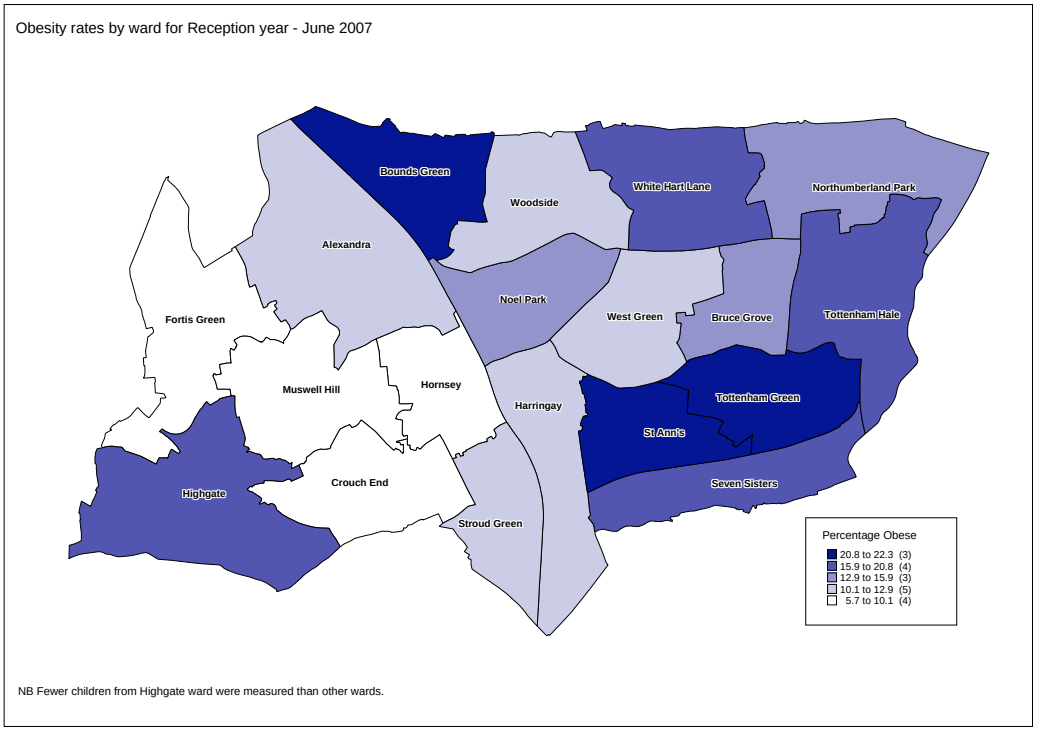
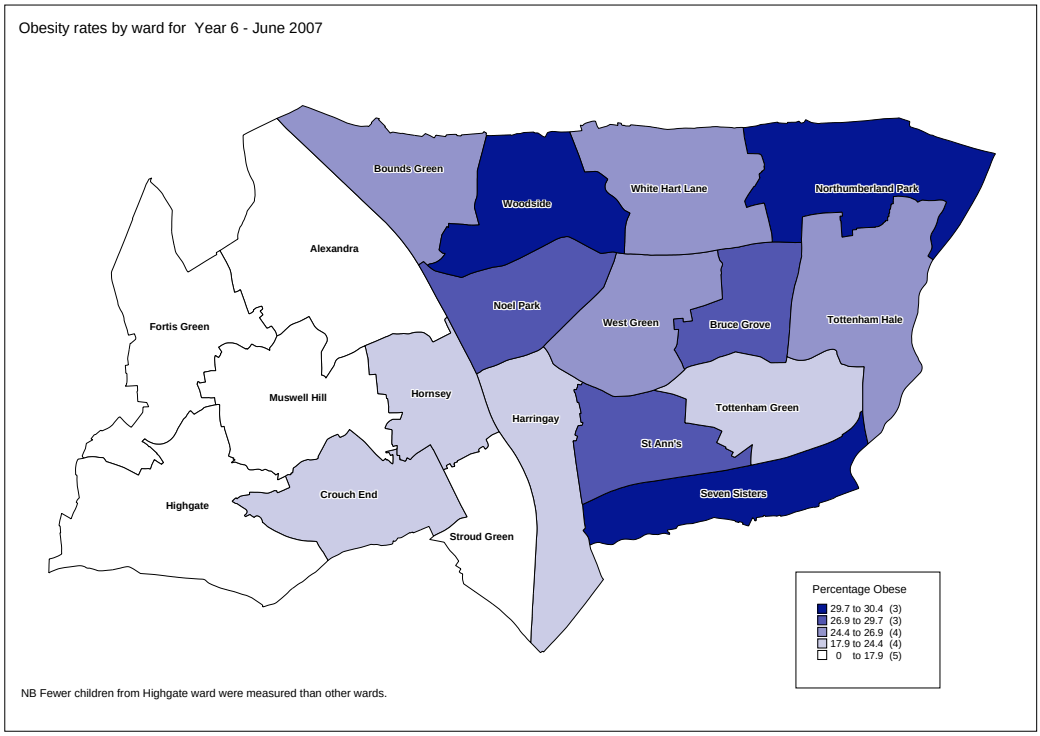


Figure 7: Childhood obesity Rates by Ward –Year 6 (2007)



At risk groups

The prevalence of overweight and obesity disproportionately affects the lower socioeconomic groups and socially disadvantaged groups (particularly women)[14],[15],[16]. They include:-

- Children from low-income families
- Children from families where at least one parent is obese
- Individuals of Asian origin (particularly those of south Asian origin)
- Ethnic groups with a higher than average prevalence of obesity (Black African women, Black Caribbean women, Pakistani women, Black Caribbean men, and Irish men)
- Adults in semi-routine and routine occupations
- People with physical disabilities (particularly in terms of mobility which makes exercise difficult)
- People with learning difficulties
- Older people

Regarding individuals, there are also times when people are more likely to put on weight, for example:-[11].

- Men in their late 30's
- Women entering long-term partnerships
- Women during and after pregnancy
- Women at the menopause
- People giving up smoking
- People who retire
- People suffering from psychosocial problems (eg. stress and depression)

In addition, people diagnosed with a severe and enduring mental illness, particularly schizophrenia or bipolar disease, are at increased risk of greater levels of obesity and are almost twice as likely to die from CHD as the general population. Therefore, this vulnerable group requires special attention[17].

The burden of overweight and obesity

The human cost

Obesity is associated with premature death and the increased risk of developing numerous diseases including cardiovascular disease, some types of cancer and type II diabetes. Estimates suggest that on average obesity reduces life expectancy by between 3-13 years.

Childhood obesity is associated with health outcomes similar to those of adults and include hypertension, dyslipidaemia and hyperinsulinaemia. Other consequences include type II diabetes, mechanical disorders, the exacerbation of asthma, psychological problems such as low self-esteem, being perceived as unattractive, depression and eating disorders. The most significant long-term consequence of childhood obesity is its persistence into adulthood and the early onset of obesity-related co-morbidities such as hypertension and type II diabetes.

Table 6: 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 • Breathlessness • Sleep apnoea	• CHD • 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 cancer) • Reproductive hormone abnormalities • Polycyctic ovary syndrome • Impaired fertility • Low back pain • Anaesthetic risk • Foetal defects associated with maternal obesity

Source: Adapted from World Health Organisation (2000)[4]

Other costs

The costs of obesity in England alone in terms of human cost is estimated at 1.8 million sick days year along with 30,000 deaths per year. The financial implications of overweight and obesity for the NHS and the economy as a whole are great, estimated at between £6.6 billion and £7.4 billion per year, with costs of obesity alone estimated at between £3.3 and £3.7 billion per year[18].

Benefits of obesity prevention and weight management

There are numerous benefits associated with weight loss in overweight and obese individuals, which can lead to improvements in psychological, physical and social health. Prevention is ultimately the most effective strategy. However, evidence suggests that a moderate weight loss of 5-10% of body weight in obese individuals will have a significant impact on reducing obesity-related co-morbidities, in particular in reducing the risk of developing type II diabetes, CHD and in reducing blood pressure[19],[20].

Table 7: The benefits of a 10kg weight loss

	BENEFIT
Mortality	> 20% decrease in mortality > 30% decrease in diabetes-related deaths > 40% decrease in obesity-related cancer deaths
Blood Pressure	Decrease of 10mmHg systolic blood pressure Decrease of 20mmHg diastolic blood pressure
Diabetes (in newly diagnosed people)	Decrease of 50% in fasting glucose
Lipids	Decrease of 10% of total cholesterol Decrease of 15% LDL Decrease of 30% of triglycerides Increase of 8% of HDL
Other benefits	Improved long function, and reduce back and joint pain, breathlessness, and frequency of sleep apnoea Improved insulin sensitivity and ovarian function

Source: Adapted from Jung (1997)[21]; Mulvhill and Quigley (2003)[22]

POLICY CONTEXT

Tackling overweight and obesity is a national government priority. Three government departments, namely the Department of Health, Education and Skills and Culture, Media and Sport have been given the joint Public Service Agreement to 'halt the year-on-year rise in obesity in children under 11, in the context of a broader strategy to tackle obesity in the population as a whole'. The government's new ambition is 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. The initial focus is on children: by 2020 to have reduced the proportion of overweight and obese children to 2000 levels. Numerous policy documents and reports address obesity and include:-

National Policy drivers

- ***Choosing Health: Making healthy choices easier*** **(DH, 2004)**
  The main policy driver in addressing these issues. It is a national strategy for improving health in England focusing mainly on individual lifestyle changes,

supported by fiscal , legislative, environmental, commercial and other changes to encourage, enable and empower the individual. *Delivering Choosing Health* sets out the action required to be taken over three years (2005-2008) at national, regional and local level to deliver the white paper commitments. The action plans, namely Delivering Choosing health: Making healthier choices easier, Choosing a better diet: A food and health action plan and Choosing activity: A physical activity action plan aim to reduce the prevalence of diet-related disease and to reduce obesity in England by improving the nutritional balance of the average diet and to promote activity for all.
www.dh.gov.uk

- **At least five a week: Evidence on the impact of physical activity and its relationship to health (DH, 2004)**
  This report of the Chief Medical Officer sets out the latest research evidence of the benefits of physical activity for health. It is aimed at those concerned with formulating and implementing policies or programmes that utilise the promotion of physical activity, sport, exercise and active travel to achieve health gain.
  www.dh.gov.uk
- **Tackling health inequalities: A programme for action (2003)**
  This document sets out plans to tackle health inequalities. It establishes the foundations required to achieve the challenging national target for 2010 to reduce the gap in infant mortality across social groups, and raise life expectancy in the most disadvantaged areas faster than elsewhere.

National Service Frameworks

- **National Service Framework for children, young people and maternity services (2004)**
  This NSF sets out a 10-year programme for sustained improvement in children's health and wellbeing through setting standards for the care of children, young people and maternity services. Standard 1 – promoting health and wellbeing, identifying needs and intervening early, is relevant to tackling obesity.
- **Supporting local delivery - Every Child Matters: Change for children in health services (2004)**
  The NSF forms an integral part of this document. As the programme is implemented by PCTs, local authorities and other partners, this document

contributes to the achievement of improved outcomes for children, young people and pregnant women.

- **National Service Framework for Diabetes (2001)/Diabetes Delivery Strategy**
  This NSF sets out national standards for the treatment of diabetes to raise the quality of NHS services. Standards 1, 3 and 4 are relevant to obesity.
- **National Service Framework for Older People**
  This NSF sets out national standards and service models of care across health and social services for all older people. Standard 8 is relevant to obesity.
- **National Service Framework for Coronary Heart Disease (2000)**
  This sets out a strategy to modernize CHD services over 10 years. Standards 1, 3 and 4 are relevant to tackling obesity.

***Standards and Targets* - Public Service Agreements (PSAs)**

Children

- **Department of Health, Education and Skills, and Culture, Media and Sport**
  Public Service Agreement (PSA) to 'halt the year on year rise in obesity among children under 11 by 2010, within the context of a broader strategy to tackle obesity in the population as a whole'.

Adults

- PSA 10b1 – to decrease over time the number of people aged 15-75y on a GP register recorded as having a BMI of 30 or greater
- PSA 10b2 – to increase over time the number of people aged 15-75y on a GP register with a BMI recorded

Local policy drivers

Local policies and strategies have been developed which support the agenda for tackling obesity. These include the Haringey Food and Nutrition Strategy and the Haringey Sport and Physical Activity Strategy. Local Area Agreements can act as a mechanism and joint structure to promote joint working to tackle obesity. There is a local stretch target to increase the proportion of people over 16 years of age undertaking at least thirty minutes of moderate intensity physical activity on three or more days of the week by 4%, from 22.9% to 26.9% by 2009.

EXISTING AND PLANNED WORK TO TACKLE OVERWEIGHT AND OBESITY

In developing this strategy, gaps in collecting information about levels of obesity, strategic planning, management of obesity and some aspects of weight management for adults were highlighted. Examples of existing and planned work to tackle obesity are outlined in an Action Plan in Appendix A. However, this is not an exhaustive list.

1. **To collect and analyse local data about the prevalence of overweight and obesity in adults and children**
   - Surveillance of BMI in children in Reception and Year 6 as part of the annual Department of Health National Child Measurement Programme.
   - Surveillance of adults BMI through primary care audits and incentives to improve data recording in primary care
2. **To promote healthy eating and physical activity to adults and children**
   - Work underway – needs to be expanded across Haringey.
3. **To further develop a range of interventions to prevent overweight and obesity in children and young people to halt the year on year rise in obesity in under 11 year olds by 2010**
   - Healthy schools programme – 64% of Haringey schools have achieved Healthy Schools status. In order to achieve the Local Area Agreement target, 85% of Haringey schools are required to achieve Healthy School status by December 2009.
   - Breastfeeding/weaning promotion
   - Family-based childhood obesity interventions – work underway and needs to be expanded
4. **To further develop a range of interventions to prevent overweight and obesity in adults**
   - Work underway in specific wards – needs to be expanded
5. **To provide access to weight management programmes for adults and children, particularly for the disadvantaged**
   - Work underway in specific wards – needs to be expanded
6. **To provide care pathway guidelines for the prevention, treatment and management of obesity in adults and children**
   - Adult Care Pathway agreed in January 2008. Agree Care pathway for children.
   - Roll-out training to support care pathways – continue the roll-out of training,

namely diet/nutrition, physical activity promotion and health behaviour change training.

7. **To promote the importance of maintaining a healthy weight throughout adulthood**
   - Local targeted media campaigns – work needed
8. **Identify resources for lifestyle management**
   - Focus on lifestyle management
   - Develop proposals for lifestyle management to be considered by Commissioning Division (eg. physical activity referral, family-based childhood obesity programmes, commercial weight management services)
9. **To ensure strategic planning includes focusing on obesity prevention**
   - Ensure obesity is considered by the Local Strategic Partnership.

IMPLEMENTATION

Progress on implementation of the Strategy will be reported to the Clinical Effectiveness Group and the Commissioning Division Directors particularly concerning commissioning of services to deliver the strategy.

MONITORING

Monitoring of the action plan will be undertaken bi-annually. Aspects of the work will be represented in the PCT Public Health Report and various reports where appropriate.

EVIDENCE BASE FOR EFFECTIVE INTERVENTIONS

Overweight and obesity are complex conditions and there is no single solution to tackling this problem. There is not a strong evidence base to guide the choice of strategies to prevent and manage obesity. However, there are a range of examples of good practice. The Health Development Agency and NICE have reviewed the evidence of various interventions. The evidence is summarised in Appendix B.

CONCLUSION

Obesity is a major public health concern. The causes are complex and the consequences it presents to society and the public sector are immense. Overweight and obesity are largely preventable through lifestyle changes. Therefore, the best long-term approach to tackling this problem is prevention from childhood. Preventing overweight

and obesity in children is vital, particularly through increasing physical activity levels and improving diet, with action starting from birth. Evidence suggests that breastfed babies may be less likely to develop obesity later in childhood.

It is imperative that a unified approach is taken to address this challenge from all possible avenues. Success can only be achieved through long-term, collaborative work to ensure the effective implementation of this strategic framework. Key partners will include the PCT, the local authority, Healthy Schools, acute hospitals, the commercial sector, community and voluntary organisations and other stakeholders within the local strategic partnership.

Evidence is scant for the prevention of overweight and obesity, and maintenance of weight loss. However, there are examples of good practice and this should not prevent early action being taken that is coherent and comprehensive. Although the evidence for treatment pathways is much clearer, there must be clear strategies and emphasis placed on prevention.

Haringey's population should be supported appropriately and feel that it has the choice and control to achieve and maintain optimal health. There is no single solution, but a multi-disciplinary, long-term strategy to tackling obesity is essential.

APPENDICES

APPENDIX A: ACTION PLAN 2007-2010

AREA OF WORK	TIMESCALE	FURTHER INFORMATION	LEAD
Surveillance			
Annual weighing and measuring of Reception and year 6 school children to measure against PSA targets	Ongoing		Sheena Carr, PCT
BMI measuring for adults	Ongoing	Increase levels of GP surgeries who routinely collect BMI of patients aged 15-75	
Healthy Eating			
Promotion of breastfeeding, breastfeeding support groups with weaning advice	Ongoing		Jenny Alexander, PCT
Promoting healthy eating through Children's Centres	Work underway		Sheena Carr, PCT
Community-based healthy eating programmes	Ongoing within some wards for the 50+	NRF funded to March 08. Plan to extend this programme across Haringey with more funding	Vanessa Bogle PCT Debbie Wilkins PCT
Commercial weight management services	-	Current gap	Vanessa Bogle PCT
Community Nutrition Assistants Programme (CNA)	Ongoing		Fiona Yung PCT
Update the Food and Nutrition Strategy and implement action plans	From April 2007		Fiona Yung PCT Vanessa Bogle PCT Robin Payne, LA
Proposals for consideration by commissioning groups for community-based healthy eating interventions	Work underway		Vanessa Bogle PCT
One-to-one obesity clinics in primary care	On-going		Fiona Yung PCT
Group weight management sessions in primary care	On-going		Fiona Yung PCT
Workplace health eating interventions	From April 2007		Vanessa Bogle, PCT Debbie Wilkins, PCT
Diet and nutrition promotion training for frontline staff	Ongoing		Vanessa Bogle, PCT
Physical Activity			
School Travel Plans to increase the number of children walking or cycling to school (including Walking Buses)	Ongoing		Sheena Carr, PCT Jude Clements, LA
School Sports Co-ordinator Programme	Ongoing		Sheena Carr, PCT Jude Clements, LA
Promoting physical activity through Children's Centres	Work underway		Kate Allardyce, PCT
Physical Activity Referral Scheme	Ongoing within some wards	NRF funded to March 08. Plan to extend this programme across Haringey with more funding	Vanessa Bogle, PCT LA

Health Walks Programme 'Walk Your Way to Health'	Ongoing		Vanessa Bogle, PCT LA
Physical activity promotion training for frontline staff	Ongoing		Vanessa Bogle, PCT
Community-based phase 4 cardiac rehabilitation programme	Ongoing		Vanessa Bogle, PCT
Primary care pedometer loan campaign	Ongoing		Anna O'Neill, PCT
Health for Haringey Projects	Ongoing	Provides healthy living activities to help people improve their health and lifestyle choices.	Tim Hoyle, PCT/ Age Concern
Workplace physical activity interventions/programmes	Ongoing		Vanessa Bogle and Anna O'Neill, PCT
Development of a physical activity care pathway (pilot)	Ongoing		Vanessa Bogle, PCT
GENERAL			
Local obesity campaign (using social marketing)	From April 2008		Vanessa Bogle PCT
Appoint Pubic Health Officer – Obesity	-	Current gap	
Agree obesity care pathways for adults (See Appendix)	Approved in January 2008		Vanessa Bogle PCT
Agree obesity care pathways for children	Ongoing		Vanessa Bogle PCT
Family-based childhood obesity intervention (Pilot) – Watch It! Programme	Ongoing	NRF funded to March 08. Plan to extend the programme across Haringey with more funding.	Vanessa Bogle PCT Debbie Wilkins PCT
Healthy Schools Programme	Ongoing		Sheena Carr PCT Jude Clements, LA
Health behaviour change training for front line staff	Ongoing		Vanessa Bogle PCT
Obesity awareness training	Ongoing		Vanessa Bogle PCT Debbie Wilkins PCT
Develop an integrated approach to the provision of primary care obesity/obesity prevention services for people with severe mental illness and learning difficulties.	From April 2008		Vanessa Bogle, PCT

APPENDIX B - EVIDENCE-BASE FOR EFFECTIVE INTERVENTIONS

Health Development Agency (2003)[22]

There is not a strong evidence base to guide the choice of strategies to prevent and manage obesity. However, there are a range of examples of good practice.

Evidence of effectiveness of prevention interventions – Adults

INTERVENTION	**EVIDENCE**
Overweight and Obesity *Community*	• There is inconclusive evidence regarding the effectiveness of community-based interventions, eg. education sessions, mailed educational packages and use of mass media, for the prevention of obesity and overweight in adults.
Diet and Nutrition *Community*	• There is inconclusive evidence regarding the effectiveness of community-based interventions, eg. seminars, mailed educational packages and use of mass media, for improving diet and nutrition in adults.
Physical Activity Community	• Community-based interventions targeting individuals are effective in producing short-term changes in physical activity. • Community-based interventions targeting individuals are likely to be effective in producing mid-to long-term changes in physical activity. • Interventions based on theories of behaviour change, which teach behavioural skills and which are tailored to individuals needs are associated with longer-term changes in behaviour. • Interventions that promote moderate intensity physical activity, particularly walking, and not facility-dependent, are also associated with longer-tem changes in behaviour. • Studies that incorporate regular contact with an exercise specialist tend to report sustained changes in physical activity.
Workplace	• Currently there is no review-level evidence of the effectiveness of workplace interventions to promote physical activity.

Older Adults	• Interventions designed specifically for adults aged 50+ are effective in producing short-term changes in physical activity. • Interventions designed specifically for adults aged 50+ are likely to be effective in producing mid to long-term changes in physical activity. • Interventions that use behavioural or cognitive approaches with a combination of group and home-based exercise sessions rather than a class or group-only format are associated with longer-term changes in behaviour. • Interventions that promote moderate and non-endurance physical activities, eg. flexibility exercises are associated with long-term changes in behaviour. • Interventions that use telephone support and follow-up are also associated with long-term behaviour change.
Adults from black and ethnic minorities	• Currently there is no review-level evidence of the effectiveness of interventions focusing on people from ethnic minorities.
Adults with physical limitations	• Currently there is no review-level evidence of the effectiveness of interventions focusing on people with physical limitations.

Evidence of effectiveness of prevention interventions targeted at children and young people

INTERVENTION	EVIDENCE
Overweight and Obesity	
Prevention of overweight and obesity	• Multi-faceted school-based interventions can reduce overweight and obesity in school children, particularly girls. Interventions include nutrition education, promotion of physical activity, reduction of sedentary behaviour, behavioural therapy, teacher training, curriculum materials, and modification of school meals and tuck shops. • School-based health promotion may prevent obesity and overweight. • Family-based behaviour-modification programmes (family therapy in addition to diet education, regular visits to a paediatrician and encouragement to exercise) may impede weight gain in obese children.
Interventions with obese and overweight children	• Targeting parents and children together (family-based interventions involving at least one parent) with physical activity and health promotion is effective in treating obesity and overweight in children. • Multi-faceted, family-based behaviour modification programmes, where parents take responsibility for behaviour change, have been found to be effective in primary school age children. Such programmes comprise diet, exercise, reducing sedentary behaviour, and lifestyle counseling, with training in child management, parenting and communication skills. • Laboratory-based exercise programmes may be effective.
Diet and Nutrition *Schools*	• A **whole-school approach** to promoting healthy eating and consumption of more fruit and vegetables is more effective than using individual interventions in isolation, such as setting up a fruit tuck shop without the support of a wider approach. A whole-school approach can improve knowledge of and attitudes towards healthy eating, and show small but valuable changes in consumption of fruit and vegetables. Participatory approaches are important, ie.

Home (pre-school) – promoting breastfeeding	involving pupils, teachers, catering staff, parents, school governors and the community. • The **National Schools Programme** provides a good framework for a whole-school approach to promoting healthy eating. • Adapting the school menu and promoting lower-fat choices have been shown to reduce fat intake and increase intake of polyunsaturated fat. • **Breakfast clubs and after-schools clubs**. Outcomes are broad. They may increase punctuality and attentiveness and provide pre and after-school childcare. They provide an opportunity to encourage the consumption of fruit or cereal, and may help address low intakes of iron and other micronutrients. Clubs offering play activities as well as breakfast may be more successful than those offering breakfast alone. • **School-based cooking skills clubs** can stimulate interest and confidence in developing cooking skills outside the school setting and may produce social and educational benefits. • **Pre-school and day care settings** are likely to be appropriate settings for interventions. Parental involvement may enhance the effectiveness of interventions and should be encouraged. • **4 types of interventions have been shown to be useful in promoting breastfeeding** • Peer-support programmes delivered in the antenatal and postnatal periods have been shown to be effective in increasing breastfeeding initiation and duration rates among women on low incomes. Peer-support programmes should be targeted at women on low incomes who wish to breastfeed. • Informal, small-group health education sessions delivered during the antenatal period have been shown to be effective in increasing breastfeeding initiation and duration among women of all income groups and women from minority ethnic groups. • The evidence shows that one-to-one health education can be effective at increasing breastfeeding initiation rates among women on low incomes. It may be more effective than group sessions in increasing initiation among women who have made a decision to bottle-feed.

Physical activity Schools	• Changes in maternity ward practices to promote mother-infant contact and autonomy, such as 'rooming in' (having the child in the same room as the mother) and breastfeeding support, have been shown to be effective in increasing the initiation and duration of breastfeeding. • Physical activity programmes in schools have produced good outcomes. • Physical activity programmes may encourage lifelong physical activity and enhance academic activity. • School travel plans, including Safe Routes to Schools, can increase cycling, walking and bus use, including 'walking buses'.

Evidence of effectiveness of treatment and weight loss interventions in adults

EVIDENCE	INTERVENTION
ADULTS – TREATMENT	
Diet *Evidence*	• There is evidence to support the effectiveness of low-calorie diets (1,000-1,500 kilocalories per day). • The evidence suggests that clinically prescribed very-low calorie diets (400-500 kilocalories per day) are more effective for acute weight loss than low-calorie diets. However, there is conflicting evidence regarding the relative effectiveness of very-low-calorie diets versus low-calorie diets over the long term (greater than one year).
Conflicting evidence	• There is evidence to support the effectiveness of low-fat and low-calorie diets and low-fat diet alone (where 30% or less of total daily energy is derived from fat). However, there is conflicting evidence regarding their relative effectiveness. • There is conflicting evidence of the effectiveness of increased fibre intake for the treatment and management of overweight.
Physical activity *Evidence*	• Increased physical activity is effective in producing a modest total weight loss. However, diet alone was more effective than exercise alone. • Physical activity alone, diet alone, and physical activity and diet combined are effective interventions.
Conflicting evidence	• There is conflicting evidence of the effectiveness of physical activity combined with diet versus diet alone or physical activity alone.

Behavioural and/or cognitive therapy techniques *Evidence*	• There is evidence that a combination of behavioural therapy techniques in conjunction with other weight loss approaches is effective for the treatment of adult obesity over a one-year period.
Limited evidence	There is evidence to support:- • Extending the length of behavioural therapy • Group behavioural therapy • Correspondence courses • Provision of structured meal plans and grocery lists • The cognitive therapy technique of cure avoidance • Cognitive rehearsal (rehearsing one's thoughts and behaviours prior to a potentially difficult situation, and planning healthy adaptive responses).
Conflicting evidence	• There is conflicting evidence regarding the effectiveness of involving spouses.
ADULTS – WEIGHT MAINTENANCE *Limited evidence*	• There is limited evidence of the effectiveness of self-help peer groups with therapist-led booster sessions on weight loss maintenance • There is limited evidence of the effectiveness of daily weight charting for weight loss maintenance.
Conflicting/inconclusive evidence	• There is conflicting/limited evidence regarding the effectiveness of the use of formula diet preparations in the maintenance of weight loss. • There is conflicting/limited evidence regarding the effectiveness of the use of standard versus pre-packaged foods in the maintenance of weight loss. • There is conflicting/limited evidence regarding the effectiveness of increased physical activity (1,500-2,000 kilocalories per week) for weight loss maintenance. • There is conflicting/limited evidence regarding the effectiveness of continued contact with the therapist for weight loss maintenance.

Lack of evidence	• There is a lack of evidence on the effectiveness of 'weight focus' and 'skills focus' programmes for the maintenance of weight loss. These consisted of monthly meetings providing training in dietary and exercise behaviours compatible with maintaining weight loss (skills focus), or discussing weight loss maintenance progress and addressing difficulties using a non-specific problem-solving strategy (weight focus).

Evidence of effectiveness of treatment interventions in children and young People

EVIDENCE	INTERVENTION
Evidence	• There is evidence that targeting parents and children together (family-based interventions involving at least one parent) with physical activity and health promotion is effective in treating obesity and overweight in children. • There is evidence to support the use of multi-faceted, family-based behaviour modification programmes, where parents take primary responsibility for behaviour change, in the treatment of obesity and overweight in primary schoolchildren. The programmes comprised diet, exercise, reducing sedentary behaviour, and lifestyle counseling, as well as training in child management, parenting and communication skills. • There is evidence to support the use of laboratory-based exercise programmes in the treatment of childhood obesity. These programmes consisted of walking, jogging, exercise biking, high-repetition resistance exercises and combinations within a laboratory setting, as opposed to free-living lifestyle activity interventions.
Limited evidence	• There is limited evidence that behaviour modification programmes with no parental involvement are effective in the treatment of childhood obesity and overweight. These programmes included a reduced-calorie diet and an exercise programme, combined with cognitive-behavioural 'obesity training', or muscle relaxation training.
Lack of evidence	• There is a lack of evidence regarding the effectiveness of family-based behaviour modification programmes for the treatment of childhood obesity. These programmes included behaviour modification, dietary and exercise education with a mix of sessions involving the child, parent(s) and, in some cases, the entire family. At present there is insufficient evidence to recommend any specific programme.

EVIDENCE OF EFFECTIVE INTERVENTIONS

The National Institute for Health and Clinical Excellence (NICE) December 2006[1].

Evidence for the effectiveness of interventions in adults and children are summarised below:-

- There is no reliable evidence that diet alone is effective in weight loss/management and that interventions to improve diet (and reduce energy intake) should be multi-component (for example, including dietary modification, physical activity, targeted advice, family involvement/family based and goal setting), be tailored to the individual and provide ongoing support.

- The effectiveness of interventions tends to be positively associated with the number of behaviour change techniques taught to both parents and children.

- 2–5 years of age is a key time to establish good nutritional habits especially when parents are involved.

- Interventions need to be culturally specific and tailored appropriately for lower-income groups in order to be effective.

- Short and long-term school-based interventions have been shown to improve children's dietary intake. They include interventions to increase fruit and (and to a lesser extent) vegetable intake, improve school lunches and/or promote water consumption and the reduction in consumption of carbonated drinks containing sugar.
- School-based physical activity interventions may help children maintain a healthy weight. Interventions which incorporate novel educational and promotional methods, such as videos and computer programmes, may improve dietary intake.
- Limited evidence suggests that using an incentive of free access to leisure facilities is likely to increase activity levels but only during the period of the intervention.
- Interventions to increase physical activity should focus on activities that fit easily into people's everyday life (such as walking). They should be tailored to people's individual preferences and circumstances and should aim to improve people's belief in their ability to change (for example, by verbal persuasion, modelling exercise behaviour and discussing positive effects).
- 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.

- Ongoing support (including appropriate written materials) should be given in person or by phone, mail or internet.

In conclusion the report highlights that health professional led interventions in both primary care and community settings that focus on diet and physical activity or general health counseling can support maintenance of a healthy weight.

IDENTIFICATION

1. **Opportunistic**
2. **Existing Disease**
3. **Health Screening**
4. **Seeking Advice**

Health Professional

GP, Practice Nurse, Dietitian, Health Visitor, Pharmacist, Health Care Assistant

Consider using electronic obesity template

ASSESSMENT

1. **Height & Weight - BMI**
   BMI= weight (kg) / height (m^2)
   For Asian adults, risk factors may be of concern at lower BMI.
2. **Waist Circumference**
3. **Patient History**
4. **Raise the issue of weight (DH)**
5. **Assess readiness and motivation to change**

Classification	BMI (kg/m^2)	Waist Circumference		Co-morbidities present
		Low Men < 94cm Women < 80cm	High Men > 94cm Women > 80cm	Type 2 diabetes Hypertension Cardiovascular Disease Dyslipidaemia Osteoarthritis Sleep Apnoea
Healthy weight	18.5-24.9			
Overweight	25.0-29.9			
Obesity I	30.0-34.9			
Obesity II	35.0-39.9			
Obesity III	> 40.0			

General Advice on losing weight, healthy eating and physical activity (DH - *Why Weight Matters* card). Offer follow-up appointment.
Diet and physical activity
Diet and physical activity; consider drugs
Diet and physical activity; consider drugs; consider surgery

1ST LINE ADVICE

Lifestyle Assessment by health professional to increase physical activity and healthy eating using behavioural change techniques.

ASSESS

Discuss current lifestyle, diet and levels of physical activity.

ADVISE

Advise on dietary, physical activity and lifestyle modifications *Your Weight, Your Health* booklet (DH)

AGREE

Establish individual goals and a realistic weight management plan (5-10% weight loss)

Negotiate the most effective method of managing weight loss/ maintenance.

ASSIST/ARRANGE

Signpost to local physical activity and healthy eating initiatives. Refer to other health professionals and any relevant programmes.

PATHWAY
Adult Obesity Care

Haringey NHS
Teaching Primary Care Trust

FOLLOW UP

Monitor weight loss: suggested minimum is 3 and 6 months, or more often if is patient wanting active support.

Unsuccessful weight loss
< 5% at 3 months

↓

Repeat 1st Line Advice and reassess at 6 months

Successful weight loss
> 5% at 3 months
> 10% at 6 months

↓

Maintenance phase with 3/12 monthly reassessments

Haringey NHS
Teaching Primary Care Trust

PATHWAY
Adult Obesity Care

2ND LINE ADVICE

Unsuccessful weight loss after 6 months but motivated to change.

Dietitian Assessment

- Provide a comprehensive assessment.
- Monitor weight loss
- Use referral forms if unsuccessful weight loss and recommending pharmacotherapy.

3RD LINE ADVICE

GP Assessment

Pharmacotherapy

Orlistat

- >30kg/m² >28kg/m² plus co-morbidity
- Continue treatment if 5% weight loss at 3 months.
- Advise patient to register with the Motivation Advice, Proactive Support (MAP) programme.

Sibutramine

- >30kg/m² >27kg/m² plus co-morbidity
- Continue treatment if 5% weight loss at 3 months.
- All patients should have controlled blood pressure (145/95 or below) and have no history of coronary artery disease, arrhythmias, congestive heart failure or stroke.
- Advise patient to register with the online support programme 'Change for Life'.

Rimonabant
(not assessed by NICE)

- A newer drug and much less is known about its effectiveness.
- Problems with adherence due to side effects.

4TH LINE ADVICE

Bariatric Surgery
(main provider - Whittington Hospital)

- For patients:
  > 40kg/m²
  35-40 kg/m²
  plus co-morbidity
- Further assessment in hospital including a psychology assessment.

MAINTENANCE

Ongoing monitoring of weight should take place to ensure that patients are supported and referred back into the pathway should they have a relapse in weight management.

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