

## **INTEGRATED STRATEGIC NEEDS ASSESSMENT:**

### **HEALTHY WEIGHT**

#### **SUMMARY**

##### **KEY ISSUES**

Being overweight or obese is now the norm amongst adults. We estimate that 23% (or 61,500) are obese and at least 37% (99,000) are overweight. High levels of unhealthy weight are apparent across all socio economic groups within the population.

The estimated prevalence of obesity is slightly lower than the national average but the difference is not statistically significant. 8 Middle Super Output Areas are in the worst 25% nationally – four of these are in Ellesmere Port while the other two are in Blacon and Winsford areas.

We estimate that over 6,000 patients are morbidly obese.

Nationally, the proportion of people with an unhealthy weight has been increasing over the last 20 years although the rate of increase has slowed in the 2000s compared to the 1990s. By 2020, regional predictions suggest that 59% of women and 78% of men will have an unhealthy weight. Locally the number of people with diabetes has been increasing by around 750 per year since 2004/05 and is set to continue in line with trends in obesity and an ageing population.

##### **UNMET NEED AND SERVICE GAPS**

Most people are either overweight or obese. A whole population prevention approach is crucial and needs a wide range of actions to improve physical activity and diet. Whilst a range of partners are taking actions – this may not be co-ordinated or the impact being monitored. In addition the impact of policies that may exacerbate the situation may not be being recognised.

The level of unhealthy weight within the population is large if 10% of people who are obese want support to change this would equate to 6,000 people. People who are overweight will also benefit from weight loss and so the potential numbers are even greater. This level of unmet need however needs to be balanced with the potential for support programmes to offer support that will actually improve outcomes cost-effectively and offer value for money.

Men are least likely to access weight loss programmes and there is potentially a gap in service provision. This will need to be monitored with new commissioning arrangements.

There may be gaps in the bariatric surgery care pathways highlighted by the current review.

## **RECOMMENDATIONS FOR COMMISSIONERS AND POLICY MAKERS**

To develop a strategic approach to promoting healthy weight with an emphasis on universal and targeted approaches across the life course to increase physical activity and improve diet

A balance needs to be established between treatment and prevention in supporting people to return to, and maintain a healthy weight along with preventing adults from becoming overweight or obese in the first place.

### **Universal Prevention approach**

This includes:

- Joint working on the promotion of cycling and walking across the borough
- Joint working with Planning – to ensure the potential for physical activity and healthy eating is maximised for example protecting spaces for growing food and limiting availability of unhealthy food premises near schools
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- Joint working with culture and leisure services to maximise use of leisure facilities across the whole population
- Joint working with Regulatory services around workplaces and commercial food retailers
- Working with national communication brands such as Change for Life to communicate consistent messages for people

### **Targeted lifestyle interventions**

- Commission a new commercial weight management on referral programme and ensure the programme offers value for money
- Monitor the effectiveness and reach of commissioned weight management programmes

### **Specialist weight management interventions**

- Continue to refer patients for assessment for bariatric surgery in line with NICE guidance

## INTEGRATED STRATEGIC NEEDS ASSESSMENT HEALTHY WEIGHT

### MAIN REPORT

#### INTRODUCTION

England currently has the highest rates of obesity in Europe and improving levels of healthy weight remains a key public health priority.

The causes of unhealthy weight are complex. At a basic level for an individual it is caused by an energy imbalance when more energy is consumed than is expended but there is a range of reasons why more and more of us are becoming overweight or obese. These reasons include physiological, eating habits, activity levels and psychological influences which occur at an individual and societal level.

#### Definition of Obesity

The most commonly used method of measuring if someone is a healthy weight is to check their Body Mass Index (BMI) which can be measured as follows:

$$\text{BMI (kg/m}^2\text{)} = \frac{\text{Weight in Kilograms}}{\text{Height in Meters}^2}$$

Whilst BMI is a popular measure for assessing the weight of an individual or in surveys of populations, caution is needed as it is not a direct measure of fat distribution and muscular physique. Measuring a person's waist circumference is another method of measuring obesity and associated risk recommended by NICE. Classifications for BMI and waist circumference are as outlined below:

**Table BMI and waist circumference classification**

Classification	BMI	Waist Circumference (cm)		
		Men	94-102	>102
		Women	80-88	>88
Underweight	<18.5		No increased risk	No increased risk
Healthy weight	18.5-29		No increased risk	Increased risk
Overweight	25-29.9		Increased risk	High risk
Obese	>30		High risk	Very high risk

Source: National Obesity Observatory (2009)

The economic burden to society of rising levels of unhealthy weight is stark. The total cost to society in 2007 of overweight and obesity was estimated at £16 billion. This figure could increase to £50 billion by 2050 unless action is taken to reduce levels. US studies estimate that a quarter of the cost to society incurred is on employers due to the cost of absenteeism, short term disability and sickness. The estimated cost in lost earnings due to obesity in England is between £2.35 and £2.6 billion each year. The costs to the NHS is increasing, a recent study estimated that the costs to the NHS rose by £1.8 billion between 2002 and 2006. This study now suggests that the biggest cost of treatment of ill health due to lifestyle-related factors is now due to poor diet and much of this is due to overweight and obesity.

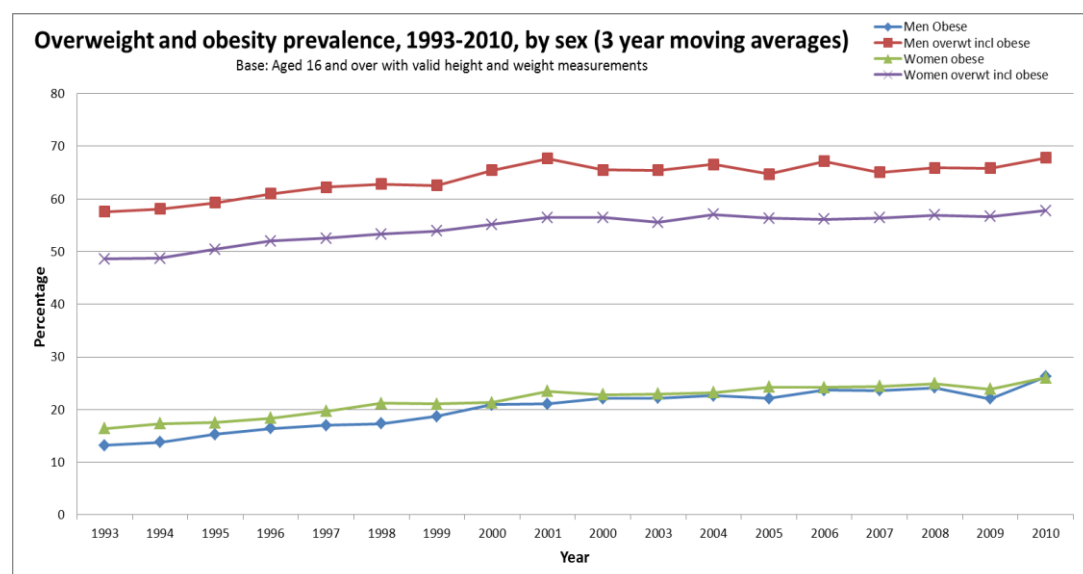
In Western Cheshire CCG, diseases related to overweight or obesity are estimated to be £90 million in year.

Please refer to JSNA Chapters: Healthy Eating, Physical activity, Alcohol for further information on specific lifestyle factors that may contribute to a healthy weight. Child obesity is not covered here but further information can be found in the Children and Young People section of the JSNA.

## WHO'S AT RISK AND WHY

Being overweight or obese is now the norm amongst adults.

According to the 2010 Health survey for England 68 % of men and 58% of women were either overweight or obese. Between 1993 and 2010 rates have increased from 53% to 63% in all adults. The rate of increase in levels of obesity has slowed since 2001 compared to the 1990s but the levels of overweight for all adults have remained steady at between 36% and 39%.



Source: Health Survey for England, 2010

This information tells us that the whole population is at risk of unhealthy weight and so a whole population preventative approach is required rather than solely action focussed at groups most at risk.

### **Sex differences**

Men are more likely to be overweight than women (42% of men were overweight compared to 32% of women) but there are similar proportions of men and women who are obese (26%). Rates of unhealthy weight increased fastest amongst men in the 1990s compared to women. In the 2000s rates slowed in both sexes.

### **Age differences**

Levels of unhealthy weight within the population increase with age and then decrease at the age of 75 years.

### **Parental obesity and child obesity**

A child's risk of obesity increases if their parents particularly their same sex parent is obese. A study found that a mother who is obese is ten times more likely to have an obese child than healthy weight parents.

### **Maternal Obesity**

The proportion of pregnant women in England who are obese has doubled between 1989 and 2007 from 8% to 16%. Rates are highest amongst women living in more deprived areas.

### **Ethnic minorities**

The 2004 Health survey for England showed higher levels of obesity in Black Caribbean men and Irish men compared to the England average. For women, Black African, Black Caribbean and Pakistani women had higher rates of obesity than the national average.

### **Socio-economic status**

Rates of obesity are significantly higher in lower income households amongst women but there is no apparent pattern amongst men. The proportion of men who are overweight however is highest amongst men in higher income households but there is no pattern amongst women.

## Disability

Obesity is associated with a number of disabling conditions (arthritis, mental health disorders, learning disabilities and back problems). Among obese people the risk of having a disability was higher compared with the healthy weight population. There was twice the risk of having a physical disability, 84% increased risk of musculoskeletal ill health, 35% increased risk of back problems, 2.5 times risk of having a disability requiring personal care.

## What are the risks of being overweight or obese?

- Having a BMI  $\geq 40$  has been shown to reduce median survival by 8-10 years
- The risk of developing type 2 diabetes is 20 to 80 times higher for people who are obese compared with non obese people
- The risk of hypertension is 5 times higher amongst obese people
- The risk of heart disease and stroke is 2.4 times higher in obese women and 2 times higher in obese men
- 10% of all cancer deaths amongst non-smokers are related to obesity

Risks are not associated to adults of a BMI above 30 alone. Evidence suggests that some health risks become evident during childhood, for example type 2 diabetes. It is also evident that health risks such as coronary heart disease and gall bladder disease increase with increasing BMI. For example for each unit change in BMI the risk of coronary heart disease increases by 3.6 times.

## CURRENT NEED IN THE POPULATION

We estimate that 23% of adults in Cheshire West and Chester were obese in 2006-08. These are synthetic estimates produced by the Association of Public Health Observatories. This estimate is slightly lower than the national average for the equivalent period but the difference is not statistically significant. We have also crudely estimated the number of people who are overweight by applying the national proportion (37%) to our adult population. This is likely to be an underestimate. The breakdown of the estimated numbers of adults with an unhealthy weight is therefore given below:

Weight Category	Estimated %	Estimated numbers
Obese	23	61,500
Overweight	37	99,000

Source: APHO, Model Based Estimates 2006-08; HSE, 2010; 2010 mid year population estimates DORIC.

Within Cheshire West and Chester, we estimate that Ellesmere Port and Winsford & Rural West have slightly higher rates of obesity but again the difference is not significant.

Obesity Prevalence: Model based Estimates (2006-2008) for Cheshire West and Chester:

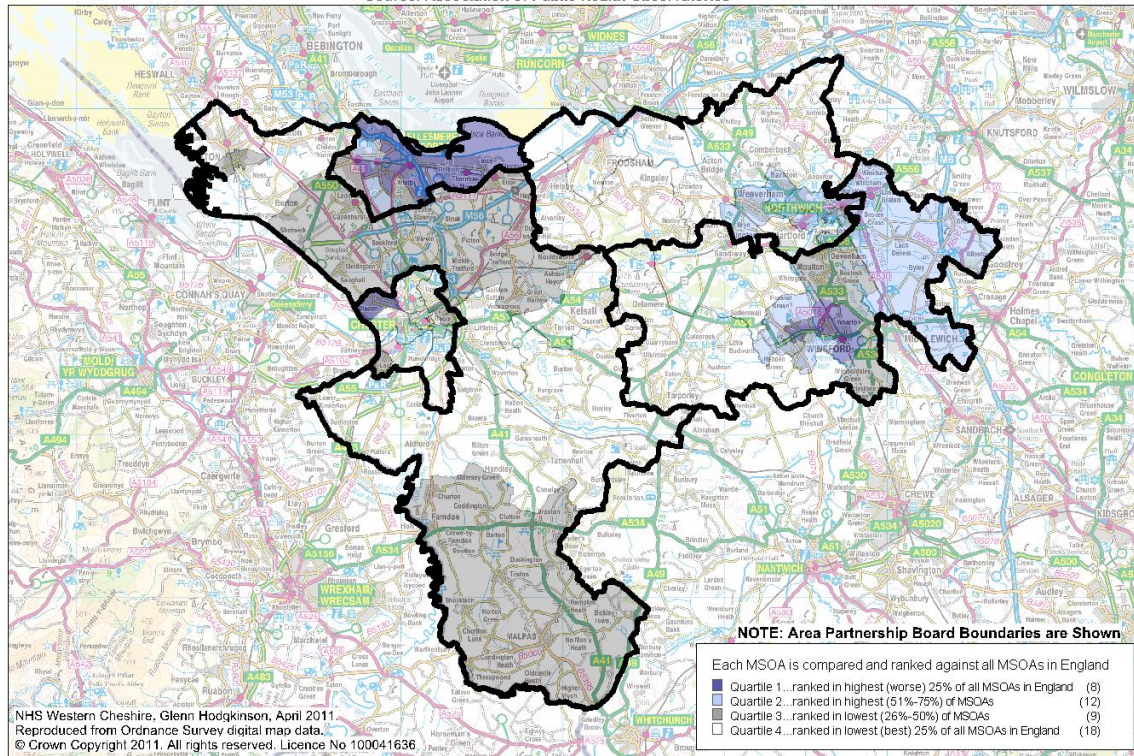
<b>Adult Obesity Prevalence: Model Based Estimates (2006-2008) for Cheshire West &amp; Chester</b>				
Geography	Model Based Estimate for Obesity (%)	Model Based Estimate for Obesity: 95% Confidence Interval (Lower Limit)	Model Based Estimate for Obesity: 95% Confidence Interval (Upper Limit)	Predicted level compared to England estimate (Low/Average/High)
<b>England</b>	<b>24.2</b>	<b>23.6</b>	<b>24.7</b>	-
Cheshire West & Chester	22.7	21.7	23.7	Average
Western Cheshire Clinical Commissioning Group	21.9	20.8	23.0	Low
<b>Prevalence for areas below are estimated using mean of MSOAs and should be compared to other geographies with caution</b>				
Vale Royal Clinical Commissioning Group	24.7	22.9	26.6	Average
Chester Area Programme Board	20.7	17.5	23.8	Average
Ellesmere Port Area Programme Board	26.5	24.7	28.4	Average
Rural West Area Programme Board	20.5	19.1	21.9	Low
Northwich & Rural Area Programme Board	23.3	20.6	26.0	Average
Winsford & Rural East Area Programme Board	24.7	22.0	27.3	Average

Source: APHO; Model Based Estimates, 2006-08. \* Western Cheshire CCG uses the published Western Cheshire PCT figure as proxy.

Model based estimates by Middle Super Output area suggest that no MSOA have significantly high rates of obesity compared to the national average. However, 8 MSOAs are in the worst 25% nationally – four of these are in Ellesmere Port and the other two are in Blacon and Winsford areas.

**Comparison of MSOAs in CWaC against All England MSOAs: Adult Obesity Estimates (2006-08)**

Source: Association of Public Health Observatories



Source: APHO, Model Based Estimates, 2006-08

Table Estimated % obese in those MSOAs in the national worst quartile:

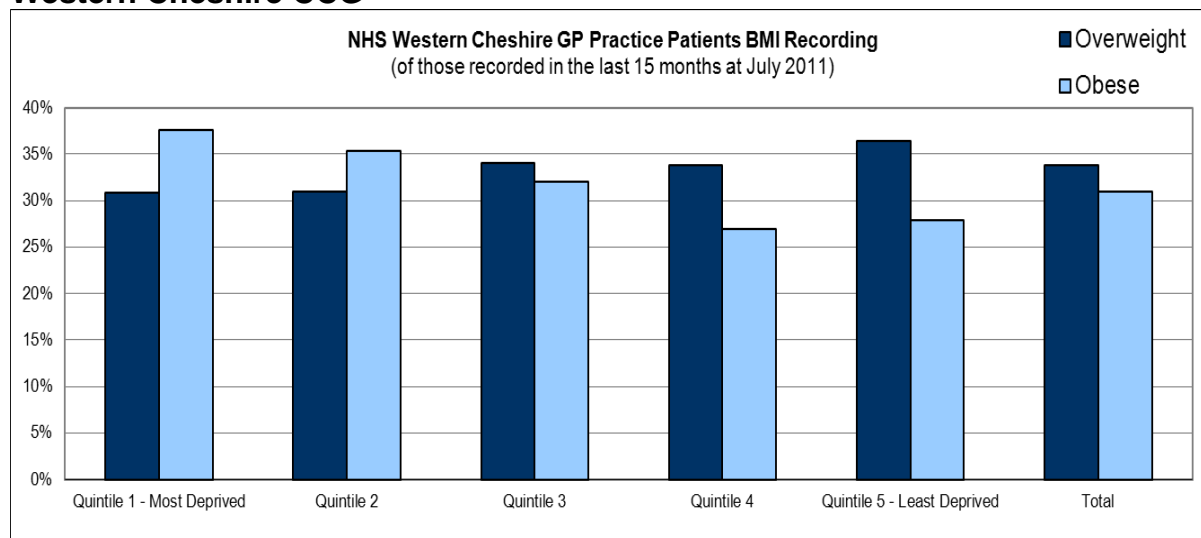
Area Name	% Obese	Compared to England	Rank	Area Partnership Board
<b>England</b>	<b>24.2</b>	-	-	-
Westminster & Central	29.3	Average	739	Ellesmere Port
Wolverham & Stanlow	29.3	Average	739	Ellesmere Port
South Blacon	29.2	Average	781	Chester
East Winsford	28.8	Average	970	Winsford and Rural East
Rivacre Brook	27.9	Average	1455	Ellesmere Port
North Blacon	27.7	Average	1576	Chester
Whitby West	27.6	Average	1635	Ellesmere Port
Winsford Central	27.6	Average	1635	Winsford and Rural East

Source: APHO, Model Based Estimates, 2006-08

Using data from Western Cheshire general practices 31% of patients who have had their BMI measured were obese and 34% were overweight. This figure is biased and is likely to be an underestimate. The pattern by deprivation however illustrates that more people were recorded obese in more deprived areas but more were recorded as overweight in more affluent areas.



**Figure Patterns of recorded unhealthy weight by deprivation within Western Cheshire CCG**



Source: NHSIA (Exeter ) & Graphnet Primary Care Database 2011

### Morbid Obesity

People who are morbidly obese have a BMI  $\geq 40$ . Nationally, 2.7% of adults were morbidly obese in 2010. The local prevalence is likely to be lower in line with lower estimates of obesity prevalence.

In Western Cheshire CCG 4,200 patients were recorded as morbidly obese (2011). We do not have the data for Vale Royal but they comprise nearly a third of our population so potentially a further 2,100 morbidly obese patients are on their registers.

### Level of unhealthy weight for patients on disease registers

The proportion of patients with an unhealthy weight on disease registers such as diabetes or heart disease is higher than the general population as expected. The breakdown for Western Cheshire CCG is given below.

Disease register	% obese (no)	% overweight (no)
Diabetes	49% (4,500)	34% (3400)
CHD	34% (2,100)	39% (2600)
Stroke	30% (860)	37% (1100)

Source: Population - NHSIA (Exeter ) Register as at June 2009 - 2011; BMI recording - Graphnet Primary Care Database

## CURRENT SERVICE PROVISION

A strategic approach to promoting healthy weight should include a comprehensive range of interventions from whole population prevention activity to brief advice on weight loss to weight management services and bariatric surgery:

**Whole population prevention activity** including healthy built environments, active transport, access to open spaces and leisure facilities, whole school approaches, work place health

**Targeted community based lifestyle interventions** including cooking skills courses, grow your own schemes, veg-bag schemes, weight management programmes

**Weight management** interventions including weight management programmes and bariatric surgery

The following section describes current services and developments against each type of activity:

### **Whole population prevention activity**

#### Change 4 Life

A national campaign promoted locally encouraging people to make small changes to make a big difference by improving their activity levels and understanding ways to eat more healthily.

#### Get Fit on Foot

Volunteer led walks coordinated by Cheshire West and Chester Council across the area provide an opportunity for all ages to get out and about and fit on foot.

#### Cycling and Chester Cycling Demonstration Town

Chester was one of a number of towns and cities across the country that are Cycle Demonstration Towns and Cities. In addition to this Cycling Projects provide cycling initiatives across Cheshire West and Chester that aim to get people of all abilities active through cycling. Adapted bikes are available to enable people with a range of physical disabilities to be active outdoors. Dr Bike also hold cycling sessions across the authority including Roker Park in the centre of Northwich. Designed to appeal to all ages and families residents can have a free bike MOT and then a led cycle route.

## **Targeted community based lifestyle interventions**

### Healthy Living Centres

There are two Healthy Living Centres (Chester and Ellesmere Port) that provide access to health promotion information as well as a range of activities that includes Fruit and Vegetable Bag Scheme, Community Food Programme and physical activity sessions such as Buggy Fit and Fit and Fun exercise classes.

### Grozone

This initiative led by Groundwork Cheshire transformed a derelict site in Northwich into a community space to encourage local people to be active outdoors, grow and eat local produce and learn more about nutrition, gardening and conservation.

## **Weight management services**

### Adult weight management services

NHS Western Cheshire commissions an adult weight management programme – Step by Step from Cheshire and Wirral Partnership Trust. The service provides individuals and group based support for 6 months.

In 2010/11 the service recruited 415 people who achieved an average weight loss of 3.7% (target 5%) for the 6 month programme. The service cost £265,735 and therefore cost £406 per referral and £4582 for achieving 5% weight loss. A decision has been made to decommission this service and commission a commercial weight management voucher scheme for a 12 week programme to reach around 1000 people at around a cost of £60,000 from 2013.

In Vale Royal Reshape Weight Management Service is Practice Nurse led with support from a community dietitian and provided through GP practices. It is available for adults with a BMI of 28 with co morbidities or 30 without and consists of 10 appointments over the course of a year. The programme is currently being evaluated.

### Bariatric surgery

Bariatric surgery refers to a group of operations designed to induce weight loss. The two most common procedures in the UK are the gastric band and gastric bypass. The gastric band reduces the size of the stomach by creating a small pouch at the top of the stomach, this restricts the amount of food the patient can eat. The gastric bypass works in a similar restrictive way but in addition a portion of small bowel is bypassed, resulting in fewer calories being absorbed from the food the patient eats.

Bariatric surgery is currently commissioned by North West Specialised Commissioning Team (NWSCT). The current contract is with Spire hospital and is due to end in October 2012. NWSCT are currently working on the new contract and will have chosen the provider by June 2012. There may be changes to the non-surgical weight management requirements pre bariatric surgery.

In Western Cheshire CCG, the criteria for GP referral for bariatric surgery is the same as NICE guidance (2006)

- BMI above 40 or 35 with serious co morbidities where other non invasive weight loss mechanisms have failed.

In Western Cheshire CCG, patients who meet the criteria are referred to the Bariatric Clinical Review Panel based at the Countess of Chester Hospital for consideration for surgery.

For Western Cheshire CCG practices the number of patients receiving bariatric surgery has varied from year to year with the average between 2008 and 2011 being 37 patients per year.

In Vale Royal those patients that are considering bariatric surgery are referred through to the Specialist Dietetic Led Weight Management Service which operates across Central and Eastern PCT to ensure they understand the implications of surgery and have adopted the appropriate lifestyle changes.

Specialised commissioning are presently reviewing the adult bariatric care pathway.

## PROJECTED SERVICE USE IN 3-5 YEARS AND 5-10 YEARS

The 2007 Foresight report predicted that 60% of adult men and 50% of adult women will be obese by 2050. Another 35% of adults will be overweight.

The Department of Health have made regional unhealthy weight predictions up to 2050. The North West predictions are shown below. This regional prediction is likely to overestimate what will happen locally as our baseline rates of unhealthy weight are lower.

### North West predictions of levels of unhealthy weight 2010 to 2050

	North West		
	Year	%	
Predicted adult BMI Growth 2010-2050	Overweight Males	2010	43.2%
		2020	39.3%
		2030	35.2%
		2040	31.4%
		2050	28.2%
	Obese Males	2010	29.9%
		2020	39.3%
		2030	48.2%
		2040	55.9%
		2050	62.0%
	Overweight Females	2010	33.6%
		2020	33.3%
		2030	33.0%
		2040	32.6%
		2050	32.2%
Obese Females	2010	24.6%	
	2020	26.2%	
	2030	27.9%	
	2040	29.5%	
	2050	31.2%	

Source: Department of Health, 2010

### Local trends in prevalence of diabetes

Between 2004/5 and 2010/11, the number of people on a diabetes register has grown by an average of 750 per year. We estimate that half of this increase is due to changing obesity levels. This trend is set to continue.

## EVIDENCE OF WHAT WORKS

### Population prevention approach

The Foresight Tackling obesity report provides the main recommendations for the population wide approach for addressing obesity. Population and community level interventions are also considered in the NICE Obesity guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children.

Other NICE guidance relating to the prevention of cardiovascular disease at population level and physical activity and the environment and the workplace are also relevant. NICE guidance on whole system approaches to the prevention of obesity is expected in March 2012.

The Department of Health published Health Lives Healthy People a call to action on obesity in 2011 which detailed the main components of the new approach, there were:

- Empowering individuals through the provision of information and guidance
- Giving partners, such as the food and drinks industry the opportunity to play their part
- Giving local government the lead role in driving health improvement and harnessing partners at a local level
- Building the evidence base on effectiveness and cost effectiveness

### **Weight management for adults**

A weight reduction of 5-10% from baseline over a 6-12 month period is considered a clinically significant weight loss.

NICE guidance on obesity highlights a paucity of good quality evidence for interventions delivered in non clinical settings. Interventions that are multi component (include encouraging improved levels of physical activity, nutrition and behaviour change) are the treatment of choice. There is a lack of evidence on the long term effectiveness of programmes in general. A recent HTA concluded that multi component weight management interventions did promote weight loss however weight loss was small and weight regain common. NICE recommends the use of commercial weight loss companies if they meet this guidance.

NICE recommends surgery as a treatment option for patients that have a BMI of  $\geq 40\text{kg/m}^2$  or  $35\text{-}40\text{kg/m}^2$  with other significant diseases such as type 2 diabetes and hypertension. NICE states that surgery should only be offered when all appropriate non-surgical methods have been tried but failed to achieve or maintain adequate clinically beneficial weight loss for at least 6 months.

## Weight management during and after pregnancy

NICE guidance on weight management during and after pregnancy was published in 2010.

Key evidence documents include:

- Healthy lives, healthy people: a call to action on obesity (DH 2011) is the most current strategy document from government.  
[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_130487.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_130487.pdf)
- Foresight report
- Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children (NICE 2006) <http://publications.nice.org.uk/obesity-cg43>
- Weight management before, during and after pregnancy (NICE 2010) <http://guidance.nice.org.uk/PH27/>
- Bariatric surgical service for the treatment of people with severe obesity (NICE 2010) website
- CMACE/RCOG Joint Guideline Management of women with obesity in pregnancy (CMACE/RCOG 2010) <http://www.rcog.org.uk/womens-health/clinical-guidance/management-women-obesity-pregnancy>

It should be noted that NICE guidance in development includes:

- Obesity: working with local communities (due to be published November 2012 by NICE)
- Best Practice Principles for Adult and Child Weight Management (due to be published by NICE Spring 2013)

## **STAKEHOLDER VIEWS**

### **A local community has participated in a Talking Food Project.**

A group of residents from Westminster, Ellesmere Port met about a common interest – improving access to healthier food locally. The group met with national ‘experts’ to find out more about the barriers they faced. The residents then came up with a set of recommendations that were presented to local stakeholders. Some of the group continue to meet as Westminster Food Action and deliver cookery sessions, promote the local allotments and are hoping to take over the local fruit and veg bag scheme from the local Healthy Living Centre.

## **UNMET NEED AND SERVICE GAPS**

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## **RECOMMENDATIONS FOR FURTHER NEEDS ASSESSMENT**

To understand more fully needs around weight loss of women before and after pregnancy

## **KEY CONTACTS**

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<b>Glenn Hodgkinson</b>	Public Health Analyst NHS Western Cheshire

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DORIC Data Observatory for local estimates of adult obesity  
<http://www.doriconline.org.uk/>

National Obesity Observatory regularly update their own data pages and links to other data reports [http://www.noo.org.uk/data\\_sources/adult](http://www.noo.org.uk/data_sources/adult)

Making the case for adult weight management services (DH 2010)  
[http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publichealth/Healthimprovement/Obesity/DH\\_112937](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publichealth/Healthimprovement/Obesity/DH_112937)

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