Health & Wellbeing Board

Reading Borough Council
Working better with you

Reading's Healthy Weight Statement

2017-2020

Foreword

It is increasingly and widely accepted that levels of obesity in Reading, as across the country, are a significant public health concern, which have a significant impact on people's physical health, emotional wellbeing and reduce life expectancy by an average of 8-10 years – the same as lifelong smoking.

Obesity is estimated to cost the economy £27 billion a year nationally, of which £352 million is attributed to social care costs. More importantly to us is the human cost in sickness and lost years of healthy life. It is also true that obesity is also a major contributor to the wide health inequalities between wealthier and poorer areas which are such a blight on our town.

Our vision:

> "To ensure children and adults in Reading to have the opportunity to achieve and maintain a healthy weight throughout their lives, by supporting them to make healthy diet choices and choose a physically active lifestyle"

The objectives of this document are to:

- ✓ provide a framework for the co-ordination of our work to tackle obesity.
- ✓ enlist the support and commitment of the whole Council and partners in the public, private and voluntary sectors to help people in Reading to:
- ✓ recognise the importance of a healthy weight and be able to identify what a healthy weight is.
- ✓ have access to accurate, relevant information and support to help them to achieve and maintain a healthy weight across the life course.
- ✓ be physically active in every-day life and choose active travel as a safe, attractive and convenient option.
- ✓ access acceptable, enjoyable, healthy food for themselves and their families both inside and outside the home.

Excess weight is strongly linked to a person's risk of developing serious long-term conditions such as Diabetes, Cardiovascular Disease and Cancer.

We know that in Reading we face a significant challenge to reverse the rising trend in obesity prevalence:

Over 35% of children are overweight or obese by the time they reach Year 6 in school and by adulthood, this figure has increased to 61%.

We are now seeing conditions previously considered to be diseases of adulthood appear in children and young people.

Reading has the highest density of fast food outlets in Berkshire.

Only 55.8% of the population in Reading are eating the recommended 5 portions of fruit and vegetables each day

54.7% of the adult population aren't achieving even 1 x 30 minute bout of physical activity a week.

Locally we recognise the severity of obesity and the need to strengthen our efforts to ensure that people who live and work in Reading can choose a healthy, active lifestyle and have the support that they need to be a healthy weight throughout their lives.

As well as recognising the good work that is already happening in Reading and developing new initiatives, we are committed to working together with partners and, more importantly, the people of Reading to finalise a strategy and develop a detailed implementation plan that will help combat overweight and obesity in Reading.

Councillor Graeme Hoskin

Chair, Reading Health & Wellbeing Board

Contents

1: What is obesity?

Obesity is defined as carrying an excessive amount of body fat that is a risk to health.

Overweight' is defined as having a 'Body Mass Index' (BMI) of 25-29.9 'obesity' is defined as having a 'BMI' greater than 30.

Excess body fat that accumulates around the waist is considered to increase the risk of high blood pressure, heart disease and type 2 diabetes

Obesity is defined as carrying an excessive amount of body fat that is a risk to health. Excess body fat is stored when a person habitually takes in more energy (calories) from food and drink than they use up through the body's normal daily functions (such as growth, repair, breathing, digestion and physical activity).

Body Mass Index (BMI)

An adult's weight is considered in relation to their height to check if it falls within a healthy range.

Body Mass Index (BMI) is calculated by dividing weight in kilograms by height in metres squared.

This measure was primarily developed for European populations to define at what point excess weight increases someone's risk of long-term conditions such as Diabetes and Cardiovascular Disease.

'Overweight' is defined as having a 'Body Mass Index' (BMI) of 25-29.9 'obesity' is defined as having a 'BMI' greater than 30.

Table 1: World Health Organisation: BMI classification system for adults:

BMI range (Kg/m2)	Classification
< 18.5	Underweight
18.5 – 24.9	Healthy Weight
25 – 29.9	Overweight
30 – 34.9	Obesity
35 – 39.9	Obesity ii
40 +	Obesity iii

A child's BMI is calculated in the same way but then compared to UK growth charts to take account of different growth patterns.

For most people and at a population level, BMI is widely accepted as a good indicator of weight status. However, it should be noted that:

- BMI does not distinguish between how much of a person's bodyweight is fat (excessive amounts are a health risk) and lean tissue such as bone, muscle and organs. Therefore very active people with a high muscle mass may have a high BMI, but in fact have a healthy level of body fat.
- Healthy BMI cut offs can also be slightly different in older people and in those who are very tall or very short in stature.
- The World Health Organisation (WHO) recommends slightly lower BMI cut offs for Black, Asian and other ethnic minority groups, because of the number of new cases of long-term health conditions including type 2 diabetes, coronary heart disease and stroke is up to 6 times higher than in the white European population. However, these thresholds have not been universally agreed or adopted by NICE (the National Institute for Health and Care Excellence).

NHS choices offers an online Healthy Weight Calculator, which can be used to assess both adult and children's weight status.

Waist Circumference

Excess body fat that accumulates around the waist is considered to increase the risk of high blood pressure, heart disease and type 2 diabetes, even if a person has a BMI that falls within the healthy range.

Waist circumference is another commonly used indicator of excess weight that is a risk to health:

There is an increased risk of health issues if waist circumference is:

- more than 94cm (37 inches) for a man.
- more than 80cm (34.5 inches) for a woman.

The risk of health problems is significantly higher if waist size is:

- more than 102cm (40 inches) for a man
- more than 88cm (34.5 inches) for a woman.

As with BMI, it has been suggested that the thresholds for South Asian and Chinese populations are lowered due to increased propensity to store body fat around the waist.

However, this has not been universally agreed and currently, NICE does not consider there to be enough evidence to make this recommendation for all of the health issues considered, or a reduction in mortality risk.

Figure 1 - Increase in adult's mean waist circumference between 1993 and 2014

2: What's happening in Reading

Reading's Joint Strategic Needs Analysis (JSNA) examines data from the Health and Social Care Information Centre, National Child Measurement Programme and GP Obesity Register to provide an overview of obesity prevalance and trends in obesity in Reading.

Childhood obesity

- In 2014/15, 21.9% children in reception year (age 4-5) were overweight or obese
- In the same year, 35.6% of children in year 6 (age 10-11) were overweight or obese
- There is a strong correlation between carrying excess weight in childhood and subsequent obesity in adulthood.

The National Child Measurement Programme (NCMP) is a mandatory programme run by Public Health England and the Department of Health and delivery is commissioned by local authorities.

Children are weighed and measured in their reception year and again in year 6 by school nurses. This provides a picture of weight trends in the population, raises awareness of weight issues with schools and parents and helps with the planning of local services to tackle obesity.

Data from the NCMP shows that the percentage of local children who are overweight and obese in reception year is generally in line with the England average, except between 2009 - 2011 where it reached a peak of 26.2%.

Since 2011 the numbers have levelled out to between 21.9 - 23.5%.

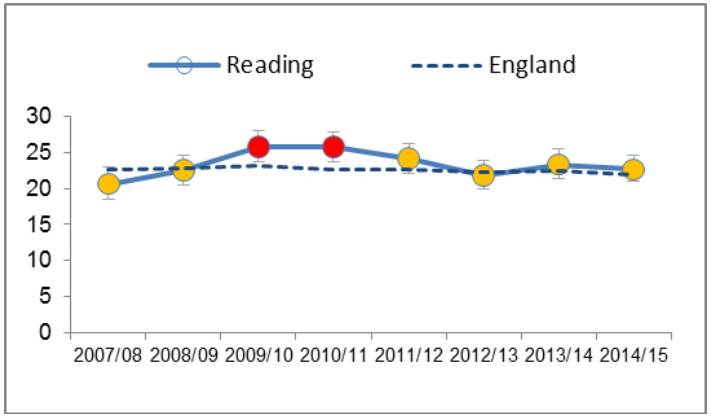


Figure 2 - Percentage overweight and obese children in reception

The percentage of overweight and obese children in Year 6 is in line with the England average, with the exception of a spike in 2009-10 where it peaked at 36.2% levelling out to between 34.5 - 35.6% from 2012 to 2015 (figure 2.2).

Figure 3 - Percentage overweight and obese children in year 6

The number of overweight and obese children increases significantly between reception and year 6 (*Figure 4*).

This demonstrates the cumulative impact of lifestyle factors on a child's weight over time.

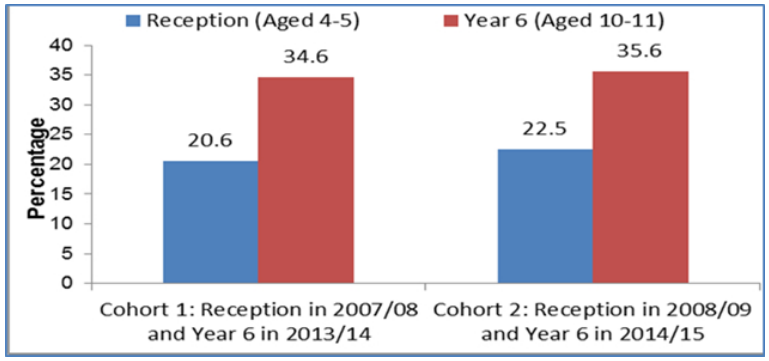


Figure 4 - Change in overweight and obese children between reception and year 6

Although the prevalence of overweight and obese children seems to be stabilising, the absolute figures are still of great concern as they indicate that a significant number of Reading's children are at risk of physical and mental ill-health, as well as the emotional impact of teasing and bullying.

Type 2 Diabetes, once considered to be a disease of adulthood, is now being diagnosed in young people and children - the most common cause is obesity.

There is a strong correlation between carrying excess weight in childhood and subsequent obesity in adulthood with the associated risk of diseases.

How Reading compares to similar areas

There is a significant relationship between increasing levels of deprivation and higher obesity prevalence in children. Reading sits in the fourth least deprived decile (out of ten).

Figures 5 and 6[1] show that out of 15 areas in England with similar levels of deprivation, Reading has the second highest percentage of overweight and obese children in both reception and year 6.

Area	Value	Lower CI	Upper CI
England	9.1	9.0	9.2
Fourth less deprived decile (IMD2015)	8.4*	-	-
Cheshire West and Chest...	9.7	8.8	10.7
Reading	9.7	8.5	11.0
Hillingdon	9.5	8.6	10.5
Kent	9.1	8.7	9.6
Milton Keynes	8.9	8.0	9.9
Bedford	8.8	7.7	10.1
Northamptonshire	8.6	8.0	9.2
Herefordshire	8.3	7.1	9.7
Warrington	8.3	7.3	9.5
Suffolk	8.0	7.4	8.6
East Sussex	7.9	7.2	8.6
Wandsworth	7.8	6.9	8.9
Derbyshire	7.7	7.2	8.3
Nottinghamshire	7.5	7.0	8.1
Stockport	7.2	6.4	8.2

Figure 5 - Excess weight in reception year 2014/2015 compared to areas with similar levels of deptivation

[1] Figures are updated annually. See the Child Health Profiles section of the Public Health Outcomes Framework website www.phoutcomes.info

Area	Value	Lower CI	Upper CI
England	19.1	19.0	19.2
Fourth less deprived decile (IMD2015)	17.7*	-	-
Wandsworth	20.5	18.8	22.3
Reading	20.4	18.4	22.5
Milton Keynes	19.4	18.0	20.8
Hillingdon	19.3	17.9	20.7
Bedford	18.6	16.8	20.5
Northamptonshire	18.5	17.6	19.4
Cheshire West and Chest...	18.5	17.2	19.8
Herefordshire	18.2	16.4	20.2
Kent	18.1	17.5	18.7
Nottinghamshire	17.2	16.3	18.0
Derbyshire	17.0	16.1	17.8
Suffolk	16.8	16.0	17.7
Warrington	16.1	14.6	17.7
East Sussex	15.7	14.7	16.8
Stockport	15.6	14.3	17.0

Figure 6 - Excess weight in year 6 2014/2015 compared to areas with similar levels of deprivation

More detailed local obesity and lifestyle data can be viewed in Reading's Joint Strategic Needs Assessment (JSNA).

The national picture

The NCMP in 2013/14 showed that across England:

- The percentage of children measured as obese (9.5%) was higher than in 2012/13 (9.3%) but lower than in 2006/07 (9.9%) when the programme began.
- The percentage of children measured as obese in Year 6 (19.1%) was higher than in 2012/13 (18.9 per cent) and in 2006/07 (17.5 per cent).
- There is a strong correlation between rising levels of deprivation and prevalence of obesity, both in reception and year 6.
- Obesity prevalence is higher in urban areas than rural areas, both in reception and year 6.

The Chief Medical Officer has called for the Government to make tackling obesity a national priority in recognition of the scale and severity of the issue (CMO report 2014).

In August 2016, the government published 'Childhood Obesity: a plan for action', which details their strategy to significantly reduce childhood obesity over the next ten years.

The plan emphasises:

- reducing the amount of sugar in food and drinks and
- encouraging primary school children to eat healthily and be more active.

See section 8 for a list of key actions included in the childhood obesity plan

Adult overweight and obesity in Reading

61% of Reading adults are overweight or obese

Obesity is a significant factor contributing to the rise in type 2 diabetes, heart disease, fatty liver disease, some forms of cancer and mental ill health.

There is a strong correlation between rising levels of deprivation and increasing prevalence of obesity.

61% of adults in Reading are overweight or obese[2].

Although this is lower than the England average (64.6%) and most similarly deprived local authority areas, the absolute figures are significant.

Without action this will have a huge impact on our resident's health, quality of life and continue to burden health and social costs

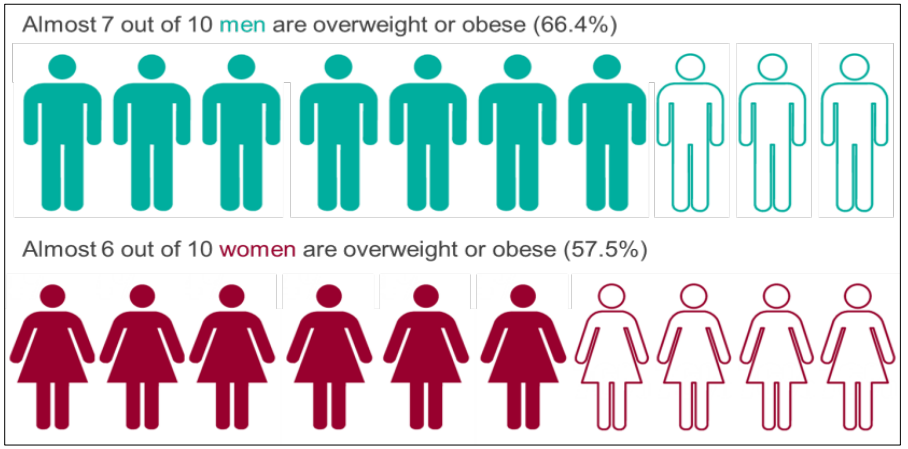
The national picture

In England, the prevalence of obesity in adults rose from 14.9% to 25.6% between 1993 and 2014. Although the rate of increase has slowed, it is still rising.

The Health Survey for England (HSE) 2013 reported that 67% of men and 57% of women are overweight or obese, increasing their risk of poor health.

Obesity is a significant factor contributing to the rise in type 2 diabetes, heart disease, fatty liver disease and some forms of cancer.

Figure 7 – percent overweight men and women (Three year aggregate from HSE 2012/14)



[2] Source: Health Profiles section of the Public Health Outcomes Framework website www.phoutcomes.info

Healthy eating

- In 2014, 55.8% of the population in Reading reported achieving the recommended 5 portions of fruit and vegetables a day.
- Reading has the highest concentration of fast food outlets per 100,000 of the population in Berkshire.

Fruit and vegetable intake is often used as an indicator of overall dietary balance.

In 2014, 55.8%[3] of the population in Reading reported achieving the recommended five portions of fruit and vegetables each day - this is similar to the England average.

Fast food outlets

Fast food outlets (defined as fast food and takeaway outlets, fish and chip shops and fast food delivery services) are now easily accessible in most urban areas. Most sell mainly high calorie, affordable, palatable food, which has poor nutritional value.

Data from the National Obesity Observatory shows a strong correlation between rising levels of deprivation and a higher density of fast food outlets and, as previously noted, obesity prevalence is higher in deprived areas.

Reading has the highest concentration of fast food outlets per 100,000 of the population in Berkshire (Table 3.1)

Table 2 - Fast food outlets per 100,000 population in Berkshire

Local Authority area	No. fast food outlets/100,000 of the population (crude rate)
Reading	104
Slough	79
Windsor & Maidenhead	56
Bracknell Forest	44
West Berkshire	44

[3] Public Health Outcomes Framework update, February 2016

Physical Activity

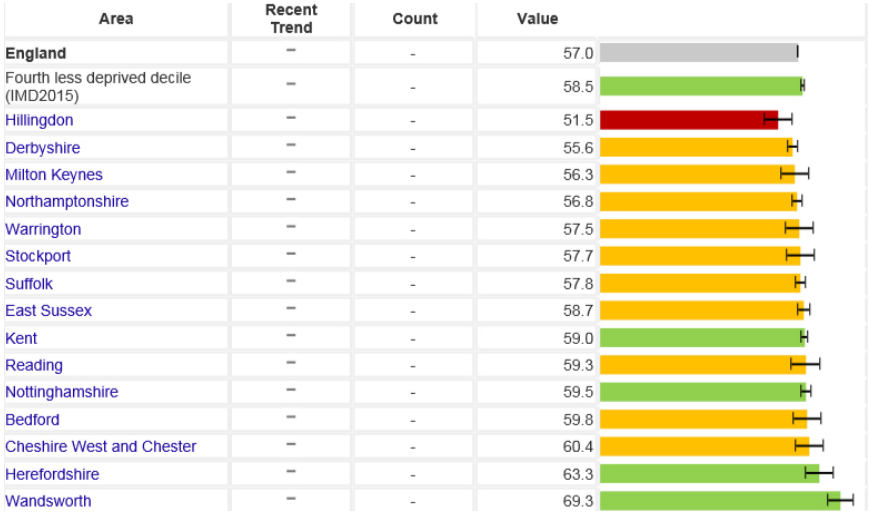
Information on levels of physically activity in Reading is collated from key data sources including:

- The Health Survey for England – which reports how much time respondents spent being physically active and sedentary in relation to the UK Chief Medical Officer Guidelines.
- The Active People Survey – a self-reported survey of sport and active recreation among adults (14+) in England
- The Youth Sport Trust National PE, School Sport and Physical Activity Survey

- ➢ 40.5 - 49.6% of local people don't do enough physical activity to protect their health.
- ➢ Significantly more men take part in sport and active recreation than women
- ➢ Participation in sport and active recreation is lower in more deprived areas.

Adults in Reading

The Active People Survey 2014 indicates that 50.4 -59.5% of Reading residents reported achieving the Chief Medical Officer targets for physical activity[4]. This is lower than the average in the South East region, but similar to the England average and with other areas with comparable levels of deprivation (*Figure 8*).

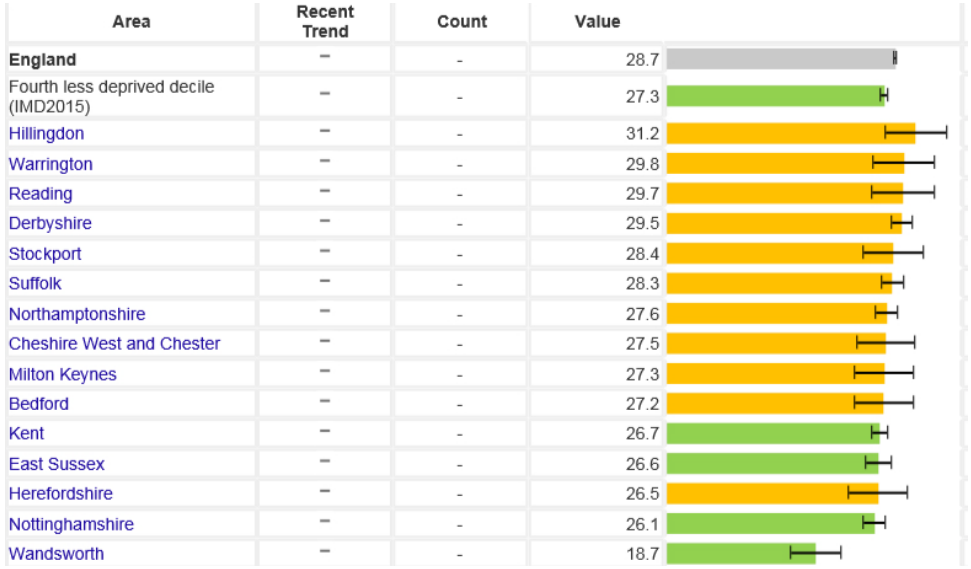


Area	Recent Trend	Count	Value
England	-	-	57.0
Fourth less deprived decile (IMD2015)	-	-	58.5
Hillingdon	-	-	51.5
Derbyshire	-	-	55.6
Milton Keynes	-	-	56.3
Northamptonshire	-	-	56.8
Warrington	-	-	57.5
Stockport	-	-	57.7
Suffolk	-	-	57.8
East Sussex	-	-	58.7
Kent	-	-	59.0
Reading	-	-	59.3
Nottinghamshire	-	-	59.5
Bedford	-	-	59.8
Cheshire West and Chester	-	-	60.4
Herefordshire	-	-	63.3
Wandsworth	-	-	69.3

Figure 8 – Percentage of physically active adults in Reading compared to LAs with similar levels of deprivation

This means that 40.5 - 49.6% of local people don't do enough physical activity to protect their health.

[44] 'physical activity' is defined as of at least moderate intensity and completed in bouts of ten minutes or more. CMO target for good health is at least 150 minutes/week



Area	Recent Trend	Count	Value
England	-	-	28.7
Fourth less deprived decile (IMD2015)	-	-	27.3
Hillingdon	-	-	31.2
Warrington	-	-	29.8
Reading	-	-	29.7
Derbyshire	-	-	29.5
Stockport	-	-	28.4
Suffolk	-	-	28.3
Northamptonshire	-	-	27.6
Cheshire West and Chester	-	-	27.5
Milton Keynes	-	-	27.3
Bedford	-	-	27.2
Kent	-	-	26.7
East Sussex	-	-	26.6
Herefordshire	-	-	26.5
Nottinghamshire	-	-	26.1
Wandsworth	-	-	18.7

Figure 9 - Percentage physically inactive adults in Reading compared to LAs with similar levels of deprivation

Figure 9 shows that Reading ranks 3rd out of 15 local authorities in the same deprivation decile for the percentage of adults who are considered 'inactive' (doing less than 30 minutes of physical activity a week).

Other factors affecting participation

Reading's JSNA reports that:

- there is a significant participation gap in sport and active recreation in the borough between the sexes, with almost twice as many men participating for at least 3 x 30 minutes on a weekly basis.
- Reading follows the National trend for participation to be lower in lower socio-economic groups.

However, there appears to be little difference between participation levels in White and British Minority Ethnic groups.

Physical Activity in schools

In 2015 the Youth Sport Trust reported findings from the first National PE, School Sport and Physical Activity Survey. Data is not available by Local Authority area, but National data has identified that the average number of minutes spent taking part in PE in a typical week was 102 minutes for Key Stage 1 pupils and 114 minutes for Key Stage 2 pupils.

Other health inequalities

Although there is very limited local data, national research shows that particular groups are a greater risk of becoming obese. Headlines include:

- Obesity increases with age up until the ages of 55-64 in men and 65-74 women
- Some BME groups (particularly South Asian communities and women from Black African groups) store fat differently and so their risk of obesity related ill health is increased
- The risk of obesity is higher in children from a number of BME groups compared with White British children of the same age
- People with physical and/or learning disabilities tend to have a higher risk of obesity and lower physical activity levels
- There are strong associations between mental health problems and obesity

For more details see "Does obesity affect all groups equally" in section 9

3: Why we are concerned about obesity

- Severe obesity (having a BMI of 40-50Kg/m2) can reduce life expectancy by 8-10 years, which is the same as lifelong smoking.
- Many chronic health problems are associated with obesity in childhood, as well as an increased risk of bullying, lower attainment and school absence.
- There is strong evidence that obesity is associated with increased risk of Cardiovascular disease, type 2 Diabetes, some Cancers and mental health problems.
- These health issues have a significant impact on health and social care costs, productivity and time lost from work through sickness absence.

Impact on life expectancy

We know that morbid obesity (having a BMI of 40-50Kg / m2) can reduce life expectancy by 8-10 years, which is the same as lifelong smoking!

Even moderate obesity (BMI 30-35Kg / m2) can reduce life expectancy by an average of 3 years (National Obesity Observatory).

These statistics are based on studies looking at the effects of becoming obese by middle age - we don't yet know the full impacts of childhood obesity on mortality risk.

There is a significant link between being an overweight or obese child and becoming an obese adult. Establishing a healthy weight and healthy lifestyle habits in early years will help to create the blueprint for life.

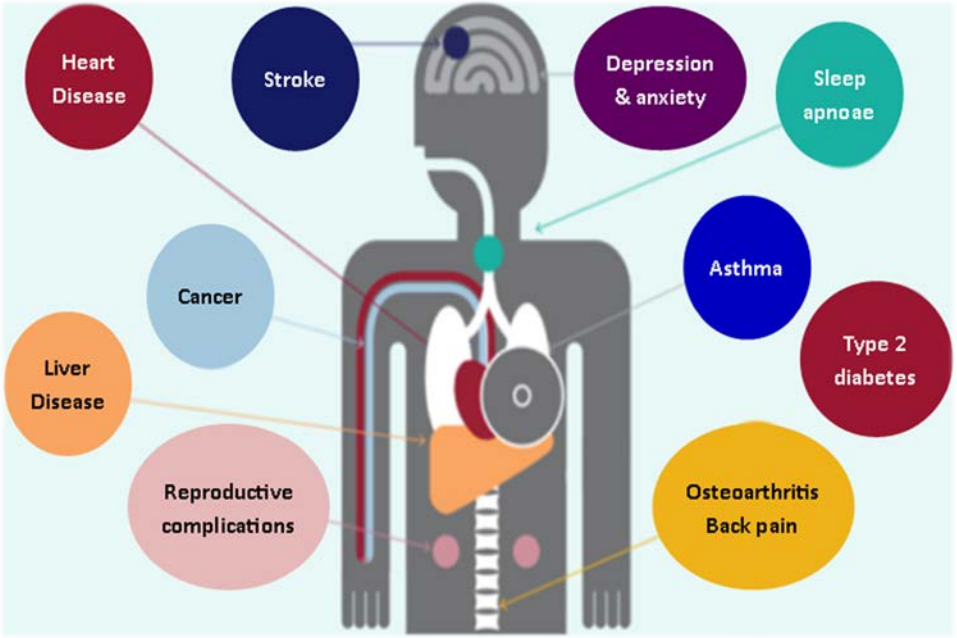


Figure 10 - How obesity harms health

Links chronic health & wellbeing

A number of chronic health problems are associated with obesity in childhood; including:

- Type 2 Diabetes
- Asthma
- Other respiratory problems
- Heart disease risk factors
- Mental health disorders
- Muscle and bone problems

Obese children are also more likely to experience bullying, have lower attainment and more frequent absences from school.

There is strong evidence that obese adults have an increased risk of several chronic health conditions including (but not limited to):

- High blood pressure, heart disease and stroke
- Type 2 diabetes (with complications such as blindness and limb amputation)
- Some forms of cancer
- Osteoarthritis.
- Reproductive problems in men and women
- Gallstones
- Stress, low self-esteem, social disadvantage and depression

These have a significant impact on health and social care costs, productivity and time lost from work through sickness absence.

The Impact on society and the economy:

- An overweight population with lower levels of physical activity will have more sickness absence
- Severely obese people are three times as likely to need social care as those who are a healthy weight (Public Health England).
- The annual cost of obesity to the wider economy is estimated to be £27 billion nationally.
- Obesity substantially increases the risk of serious diseases and premature death, particularly in areas of socio-economic deprivation, where prevalence is highest.
- The first report of the National Bariatric Surgery Register estimates that treating the consequences of obesity costs the NHS over £5 billion a year. A significant proportion of this cost has been attributed to the management of Diabetes and its comorbidities, which also impacts on social care costs.
- The Institute of Diabetes for Older People[5] estimates that in 2013 there were 70,000 people with diabetes receiving local authority-funded direct care at a cost of £1.4bn/year and that by 2030 this could increase to 130,000 at a cost to local authorities of £2.5bn

[5] Institute of Diabetes for Older People, Novo Nordisk. The hidden impact of diabetes in social care. Institute of Diabetes for Older People, Novo Nordisk. London. 2013

4. Prevention and Management of Obesity

- The main considerations for maintaining a healthy weight are balancing diet and physical activity, whilst avoiding extreme behaviours such as fad diets.
- 'Family Food 2014' shows that UK households are not currently meeting the Eatwell Guide recommendations for healthy eating.
- Average calorie intakes reduced by 32 per cent per person between 1974 and 2014 but obesity levels have increased significantly, largely due to reduced activity levels.
- Currently, 64% of journeys are made by car, with only 22% on foot and 2% by bike.

The two main considerations are a healthy diet and physical activity.

The National Institute for Health and Care Excellence (NICE) has published recommendations based on the best available evidence for health, public health and social care organisations.

NICE recommends that we should encourage everyone to adopt lifestyle habits that guard against excess weight gain across their lifespan.

These include healthier eating and increased physical activity to help balance energy intake and expenditure and avoid diseases associated with excess weight gain (avoiding extreme and unsustainable exercise or dietary behaviours such as 'fad diets').

Full recommendations can be found in NICE Guideline 7: Preventing Excess Weight Gain

Healthy Diet

The Eatwell Guide (revised March 2016) illustrates the Government's recommendations for healthy eating and represents the proportions of the five main food groups that are recommended in a balanced diet:

- Fruit and Vegetables.
- Starchy Foods (such as bread, potatoes, rice, pasta).
- Dairy or Dairy alternatives (e.g. Soya).
- Beans, Fish, Meat, Pulses, Eggs and other Protein.
- Unsaturated Oils and Spreads.

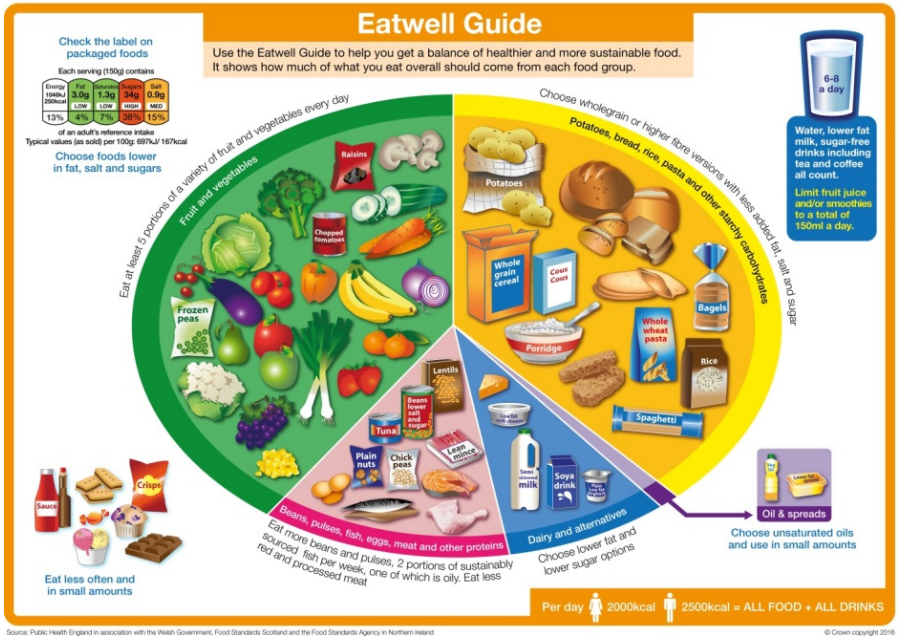


Figure 11 - The Eatwell Plate

Although the total amount of food needed varies between individuals, the proportions are appropriate for adults and children from the age of 2 years, regardless of ethnicity, dietary restrictions and body weight.

The guide also recommends average calorie intakes for adults and guidance to help use 'front of pack' traffic light food labelling for fats, saturated fats, salt and sugar in foods.

The revised Eatwell Guide takes on board guidance from the Scientific Advisory Committee for Nutrition (SACN) on 'Carbohydrates and Health' published in 2015.

This report recommends that we should:

- continue to consume 50% of daily intake calories from carbohydrate
- increase dietary fibre intake to 30g a day for adults
- reduce 'free sugars' (for example sweetened soft drinks, fruit juices, table sugar, cakes, biscuits, some breakfast cereals) to no more than 5% of total calories (previously 10%).

A diet based on these recommendations can help achieve a healthy weight and help to protect against Cardiovascular Disease, Stroke, some forms of Cancer and type 2 Diabetes.

A number of celebrity-endorsed and fad diets have focused on the omission of a particular food group such as carbohydrates – these diets contradict recommendations for long-term health and sustainable weight management.

All commissioned programmes for weight management should base dietary advice on the key recommendations from the Eatwell guide.

Family Food 2014 shows that UK households are not meeting Eatwell Guide recommendations. Disparities are particularly pronounced in lower income households (*Figure 12*)

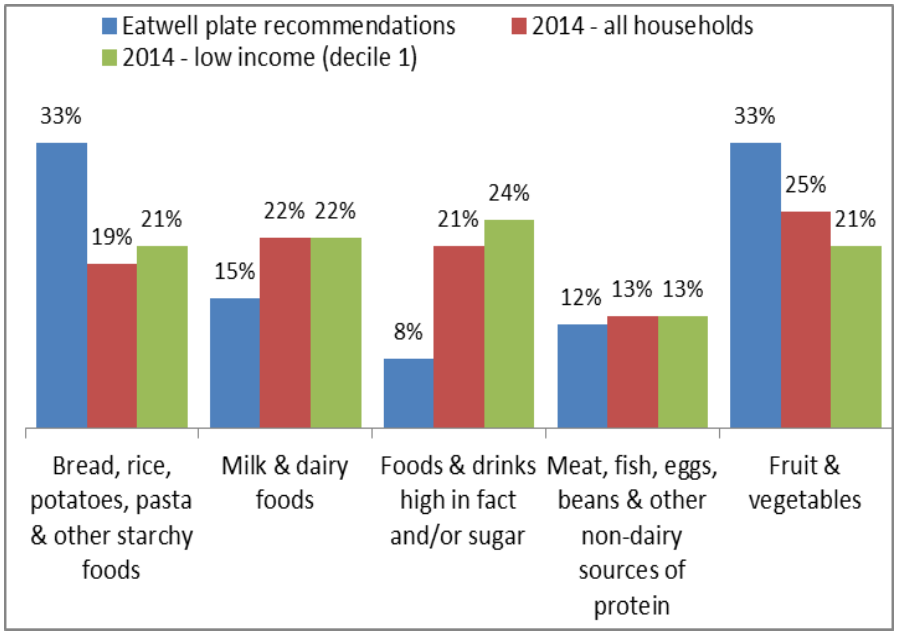


Figure 12 - Comparison between all household and low income household diets and the Eat Well recommendations.

The survey found that:

- consumption of carbohydrates (bread, potatoes, pasta and other starchy foods and fruit and vegetables) is below the recommended intake
- consumption of milk and dairy and foods high in fat and sugar is above the recommended intake.
- consumption of non-dairy sources of protein such as meat, fish, eggs and beans was about in line with the Eatwell guide.

Physical Activity

- Regular physical activity can reduce the risk or delay the onset of a number of long-term conditions including: obesity, type 2 diabetes, cardiovascular disease, some forms of cancer musculoskeletal problems, osteoporosis and falls
- It reduces the risk of dependency on social care due to impaired physical capability.
- It also has a number of positive mental health benefits including improved self-esteem, body perception, mood, sleep patterns, energy levels and reduced anxiety.

'Start Active, Stay Active - A report on physical activity for health from the four home counties' Chief Medical Officers' examines the evidence for the benefits of physical activity on health which underpins the CMO UK physical activity guidelines.

Despite the known benefits:

- 54.7% of the Reading's adult population are not achieving even 1 x 30 minute bout of physical activity a week
- the proportion of adults who were achieving 1 x 30 minute bout of physical activity a week fell significantly between 2005/06 and 2014/15 (Active People Survey).
- overall physical activity levels have reduced significantly in the last decade this has been largely attributed to an increase in sedentary jobs and recreational activities (like computer games, TV and internet use)
- there was a 30% reduction in walking between 1995-2013.
- 64% of journeys are made by car, with only 22% on foot and 2% by bike.

Figure 13: Ready Bike provides opportunities for active travel in Reading

Obesity levels have increased significantly, in spite of a 32% drop in the average calorie intake between 1974 and 2014 – this is due to the energy imbalance between calorie intake and expenditure.

Building design often favours sedentary activity for example, through making lifts more visible and accessible than the stairs and fears of vandalism or crime discourages people from using outdoor spaces for recreation and play.

The Chief Medical Officers' Guidelines for physical activity are age-specific and span the life-course (*Table 3)*

They start with preschool children, where evidence suggests an association between physical activity, physical and psychological development and behavioural patterns that may persist into later childhood and adulthood.

Emerging evidence suggests that accumulated time spent being sedentary (e.g. sitting at a desk, watching TV or using a computer) is inversely associated with the risk of overweight and obesity, insulin resistance, type 2 diabetes, some cancers, cardiovascular and all-cause mortality in both adults and children. This risk is independent of the amount of physical activity undertaken.

Different forms of physical activity appeal to different people - strategies to increase participation should consider:

- Attitudes and beliefs, knowledge, personal preferences and perceptions.
- The environment - for example, access to facilities and open spaces, permeability of built up areas allowing walking and cycling to be a convenient and safe option.
- Cultural and societal influences such as perceived norms, peer pressure and priorities.
- State of health – physical and mental, which may affect ability to participate in sports or active recreation.

Table 3: CMO Physical Activity guidelines

Age Group	Moderate to vigorous physical activity	Activities that strengthen muscles and bone.
Under 5/Not walking	Physical activity should be encouraged from birth, particularly through floor-based play and safe, water-based activities.	n/a
Under 5/walking	At least 180 minutes (3 hours) across the day.	n/a
5-18 years	Moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day.	Min 3 days/week
19-64 years	At least 150 minutes (2.5 hours) of moderate intensity activity in bouts of 10 minutes or more per week or 75 minutes of vigorous intensity activity. Minimise sedentary behaviour.	At least 2 days a week.
65+	Some physical activity is better than none, and more physical activity provides greater health benefits. Aim to be active daily, aiming for at least 150 minutes (2.5 hours) of moderate intensity activity in bouts of 10 minutes or more.	Min 2 days/week. Older adults should include activities to improve balance and co-ordination at least twice/ week.

Behaviour Change

A person's decision to change their eating and physical activity behaviour can be influenced by their knowledge, self-perception and beliefs. For example:

- Self-appraisal of their own diet and levels of activity.
- Attitudes towards body weight, healthy eating
- The number and significance of facilitators and barriers to change in the immediate environment.
- Social influences e.g. cultural norms
- Confidence in their ability to make lifestyle changes.

It is important to understand the key lifestyle behaviours of high risk groups when choosing or developing interventions to tackle obesity.

Providing services and information alone may not be sufficient to motivate sustainable changes in eating and physical activity habits. Therefore, strategies to encourage healthy eating and physical activity must emphasise and help people to identify the health and social benefits of change that are relevant to them and subsequently help them to find realistic solutions to potential barriers.

Behaviour change research by the Department of Health has highlighted key insights amongst families with children aged 2-11; both in the general population and BME groups.

Some of the key themes focused on:

- ✓ Recognition of obesity – Whilst parents acknowledged that excess weight is a problem; only 11.5% of parents with overweight and obese children identified them as being an unhealthy weight.
- ✓ Parents are often unaware of the health risks associated with being overweight, snacking habits and sedentary behaviour.
- ✓ Parents often believe that if their children are happy, achieving at school and observing faith practices in some cultures, then this means that they are healthy.
- ✓ In some population groups, higher risk behaviours such as food abundance and excess weight are seen to be positive, for example as cultural and status symbols.
- ✓ Some parents believe that their children get enough physical activity at school and priorities out of school time tended to be homework and / or religious duties rather than to play or do sport. Sport is not an integral part of some cultures.
- ✓ In more deprived areas, healthy living can be perceived to be expensive and inaccessible; for example, having to buy special 'health foods' and have a gym membership.

The full insight summary can be found in TOOL D9 Targeting behaviours on the Faculty of Public health website

5. What we are doing to combat obesity

In March 2014, Public Health England and NHS England produced a report[6] setting out responsibilities for commissioning obesity services:

Local Authorities have primary responsibility for commissioning:

- Tier 1 services - population-level programmes which encourage everyone to eat healthily and take physical activity to help maintain a healthy weight.
- Tier 2 services, which include lifestyle-related weight management services. These services are usually based in the community, workplace, primary care or online and are run by the public, private or voluntary sector. Referrals to services may be made by individuals themselves or by health or social care professionals.

Clinical Commissioning Groups (CCGs) have primary responsibility for commissioning:

- Tier 3 services - clinician-led, specialist interventions delivered by a multidisciplinary team (Dietitian, exercise specialist and psychological therapist) for people with higher BMIs or multiple health issues and those who have been unsuccessful in losing weight through tier 2 interventions.

The commissioning of Bariatric surgery currently sits with specialist commissioning (**NHS England**) but is anticipated to move to CCGs in April 2017.

Obesity is a complex issue we need to work across departments and organisations to make a sustainable difference at both an individual and societal level.

Local authorities also need to work with external stakeholders in a cohesive effort to bring together the skills and resources to help people achieve and maintain a healthy weight across their lifespan.

Where tackling obesity has been identified as a priority by organisations, a strategic commitment and identified leadership to drive forward this agenda consistently and with a long term vision can help to develop an effective approach to reducing obesity in Reading.

[6] *Report of the working group into: Joined up clinical pathways for obesity, 14th March 2014*

Tier 1 services

Breast-feeding

Given the mounting evidence suggesting that breast-feeding reduces a baby's risk of becoming overweight and developing high blood pressure and diabetes in adulthood compared to formula feeding the Council currently commissions or supports:

- A health visiting service providing expert information, assessments and interventions for babies, children and families including first time mothers and fathers and families with complex needs.
- Health visitors also advice on breastfeeding (initiation and duration), healthy weight, healthy nutrition and physical activity to help empower parents to make good decisions that affect their family's health and wellbeing.
- Breast-Feeding peer support offering mother-to-mother support to increase breastfeeding initiation and continuation.

Early Years

It is known that many eating behaviours and preferences are learned in the first two years of life and physical activity levels in early years can impact on future risk of obesity.

The Council provides:

- Children's centres across the Borough which offer families with children under 5 access to a range of activities and support, including active play and health advice - most services are free.

National Healthy Child Programme 0-19

This programme will be commissioned in 2017 to provide a framework to promote good health, wellbeing and resilience in in children and young people through collaborative working and more integrated delivery of support.

One of the aims of the programme is to reduce childhood obesity by promoting healthy eating and physical activity.

Locally we will aim to:

- ensure that all children and young people receive the Healthy Child Programme 0-19 offer, including universal access and early identification of additional and/or complex needs, with timely access to specialist services, to secure local services that enable health visiting and school nursing teams to contribute to improved local outcomes and reduce health inequalities for children and young people

School meals

The Council aims to provide environments that foster healthy balanced eating habits by commissioning and supporting school meal services:

- Since September 2014, all infant schools in Reading have been compliant with the Government's Universal Infant Free School Meals programme which ensures all young children can have at least one balanced hot meal each day. Evidence from pilot sites showed that this scheme resulted in a 23% increase in the number of children eating vegetables at lunch and an 18% drop in those eating crisps.
- By 2016, all schools under the Council's Chartwells Contract had achieved the Food 4 Life Silver catering mark - an independent endorsement which shows food providers are taking steps to improve the food that they serve. For example, using fresh, additive-free ingredients, avoiding trans-fats and compliance with national school food standards.
- Councils across Berkshire worked with the Children's Food Trust in 2015 to offer training to junior and secondary schools with low uptake of free school meals, to help them improve their dining environment.

Schools

The Council co-ordinates the National Child Measurement Programme and commissions the School Nursing Team to:

- Weigh and measure children in Reception and Year 6 each year as a mandated Public Health function
- Send feedback to parents with support options if their child's weight could be a risk to their health.
- Offer support and advice to families with overweight/obese children on diet /healthy lifestyles and onward referral to children's physical activity healthy lifestyle and healthy weight programmes.

We also:

- Provided schools with feedback from Public Health England about the levels of overweight and obesity in their school in relation the Reading average.

Healthy lifestyle

Providing opportunities for people to take part in a variety of enjoyable physical activities, along with a healthy diet, can have a positive impact on weight, health and wellbeing, and school attainment in children. (See NICE guidelines on maintaining a healthy weight in children and adults)

The Council promotes opportunities for adults and children to maintain a healthy active lifestyle through:

- A range of sports and leisure facilities, courses, classes and activities providing opportunities for children and adults to be physically active through Reading Sport and Leisure (RSL)
- Your Reading Passport (YRP) – a residents scheme offering discounts on a range of Reading Borough Council facilities and activities, with further concessions for the over 60s people with disabilities and families on low incomes
- Parent and child cycle training in partnership with Reading CTC
- After school, holiday and summer play clubs for 0-13 year olds through Reading Play
- Walking programmes

Planning

- Providing for walking and cycling in new development, including cycle parking
- Identifying sites for new sports and leisure facilities
- Ensuring that new development has good access to open space, and providing new on-site open space in the largest housing developments
- Making public areas as inviting as possible to encourage people to move around on foot.
- Placing limits on the opening of new hot food takeaways.

Healthy Workplaces

The Council promotes a healthy workplace by:

- Offering a 'Cycle to Work' scheme
- Having designated Healthy Workplace Champions to encourage colleagues to adopt healthy lifestyle opportunities
- Offering Discounted gym membership in RSL centres.
- Promoting Get Berkshire's 'Active's Workplace' and 'Pedometer' Challenges.

Active travel

The Council secured funding from the Local Sustainable Transport Fund to commission a number of projects to promote active travel, including:

- A pedestrian / cycle bridge across the River Thames
- Cycle schemes and cycling promotion in schools.

Tier 2 Services

Weight management interventions for children

The Council commissions:

- Let's Get Going - a weight management and healthy lifestyle service for children aged 7-12 years which offers family based advice on healthy eating, behaviour change and a practical physical activity element in local schools and community venues. The programme follows NICE guidance on community based weight management interventions for children.

Tackling obesity in adults

The Council commissions

- Eat 4 Health – a group-based weight management programme for adults aged over 16 years of age to support people with a BMI >25 to lose and maintain a healthier weight through healthy eating and physical activity. The programme follows NICE guidance for tackling obesity in adults.

The Council also works in partnership with local GP practices to provide:

- The GP Pathway Exercise Referral scheme provides structured, supervised exercise sessions for people with long-term conditions including obesity, diabetes and cardiovascular disease.

Tier 3 services

The CCG Operating Plan on Obesity and Diabetes recognises that a large proportion of patients requiring bariatric surgery have diabetes and that NICE guidance recommends considering those with recent-onset type 2 diabetes for bariatric surgery at a BMI of 30-34.9, provided that they are or will also receive assessment in a tier 3 service (or equivalent). Consequently as stated in the CCG Operating Plan:

'*The provision of comprehensive step wise weight management services to our population is therefore an important priority to help address and prevent people developing other illnesses, including Diabetes, which in turn further increases the health burden in our local area*'.

Public Health teams are working to support CCGs to develop of a West of Berkshire Tier 3 service to help meet the identified gap in the weight management pathway.

This will provide specialist intervention delivered by a multidisciplinary team to support and help reduce the numbers of patients moving to Tier 4 (bariatric surgery).

Tier 4 services

Bariatric Surgery is for people who are already clinically obese, where non-surgical interventions (tier 2 and 3) have proven ineffective. Evidence has suggested that because the internal satiety control becomes permanently re-set, it makes self-regulation of food intake particularly difficult.

Bariatric surgery helps weight loss either through restricting the amount of food that a patient can eat or the amount that the body can absorb. The two most common procedures are gastric banding and gastric bypass.

- Based on Commissioning Support Unit data, Berkshire has seen a 32% increase in spending over the last 5 years (2010/2011-2014/2015) on initial bariatric surgery procedures. The procedures have moved away from the Gastric band to Gastric bypass, which is more clinically effective for weight loss.

6. What do we need to do next?

Our priorities going forward include:

- Providing information and support to help people manage their weight
- Helping the least active members of the population to move more
- Working with schools and families to help more children be a healthy weight
- Providing more support for parents in early years settings
- Support/encourage teenagers to eat healthily and have active lifestyles

Prevention and early intervention are key strategies for reversing the tide of obesity.

Obesity is a largely preventable modern disease linked to potentially serious physical and mental health consequences.

A key Public Health focus nationally and locally, is to help prevent people from becoming overweight or clinically obese.

Currently the prevalence of overweight and obesity amongst adults and children in Reading by far exceeds the capacity of intervention programmes to tackle the issue. A long term, multi-organisational approach encouraging societal movement towards healthy eating and physical activity is required to help stem the rise in prevalence of overweight and obesity in children and adults.

Where are the unmet needs?

Physical activity (Tier 1)

We have a good range of active play, active travel and physical activity / sporting opportunities to support the maintenance of a healthy weight throughout life. But we need to do more to understand those who are currently inactive to help them overcome their barriers and have a more active lifestyle.

We need to work closely with schools and parents to promote healthy eating and an active lifestyle for all children.

Weight management (Tier 2)

Although we have commissioned tier 2 weight management programmes for school aged children and adults, places are limited and don't cover all age groups.

We need to ensure there is also support for early years (where formative eating behaviours develop) and in adolescence (where young people are becoming increasingly more independent and making choices about their eating and exercise habits).

Weight Management (Tier 3)

We need to continue to work with the CCGs to facilitate the development of tier 3 services to ensure we have comprehensive obesity care pathway at all levels of intervention.

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Key Actions:

Tier 1 / Primary prevention:

We will continue to build on current work to:

- Raise awareness of why a healthy weight is important, what a healthy weight is for adults and children and how to maintain this. For example through supporting National campaigns (such as Change 4 Life and One You), the NCMP and training front line staff in more settings to be able to use a 'Making Every Contact Count' style approach to raising the issue.
- promote healthy eating and an active lifestyle for all children in schools and at home.
- Enable and encourage people of all ages to move more on a daily basis through structured or unstructured physical activity, in line with Chief Medical Officer Guidelines. This includes promoting and enabling active play, walking, cycling and other forms of active travel, exercise and sport.
- Encourage children and adults to minimise prolonged periods of sedentary behaviour such as screen time. Provide appropriate information about healthy weight, the impact of maternal obesity and appropriate infant feeding; ideally given to parents before conception, but also during pregnancy and in infancy.
- Ensure that residents can access advice about preparing or buying affordable, culturally acceptable, healthy meals and snacks.

Tier 2 services:

We will:

- Continue to ensure that commissioned Lifestyle based programmes for overweight or obese adults and children in the community adheres to NICE guidance.
- Ensure that providers of these programmes encourage sustainable behavior change by signposting people to tier 1 healthy eating and physical activity programmes or to their GP if more intensive support is required.
- Work to provide more healthy weight support for families in early years settings and teenagers.

Tier 3 services: Commissioned by CCGs

We will:

- Continue to work with our partners to consider how gaps in Tier 3 provision could be addressed.
- Ensure that providers of tier 2 commissioned services recognize when to refer obese patients or those with significant health conditions to their GP to access specialist clinical support; for example Dietetic services or clinical psychology .

8. What the evidence and research says

We have used guidance from the following national documents to inform this strategy:

The National Childhood Obesity Action Plan

The National Childhood Obesity Plan (Aug 2016) details the action to be taken by central Government to tackle obesity including:

- Introducing a soft drinks levy and using revenue from this to invest in primary school PE and sports premium and breakfast clubs.
- Introducing industry targets for sugar reduction.
- Increasing the availability of healthy food options in the public sector.
- Support with the cost of healthy food in low income families
- Helping all children achieve 1 hour of physical activity a day delivered by schools and parents.
- Initiatives in schools to improve sport and physical activity programmes and make school food healthier
- Clearer food labelling.
- Developing voluntary guidelines for food served in early years settings.
- Providing revised guidelines and resources on diet, physical activity, weaning and healthy weight for healthcare professionals who support families.

NICE Guidance:

The latest evidence about what works and what offers good value for money is summarised in guidance produced by the National Institute for Health and Care Excellence (NICE)

All community weight management programmes commissioned by Reading Borough Council adhere to this guidance to ensure people are given accurate, safe, effective advice and support to manage their weight.

Does obesity affect all groups equally?

No, obesity is strongly linked to socio-economic status with higher levels of obesity seen in more deprived communities. Obesity is more common in women than in men and also in some British Minority Ethnic groups.

Unless action is taken to help people maintain a healthy weight or reduce their weight if they are already overweight the health inequalities gap will continue to grow.

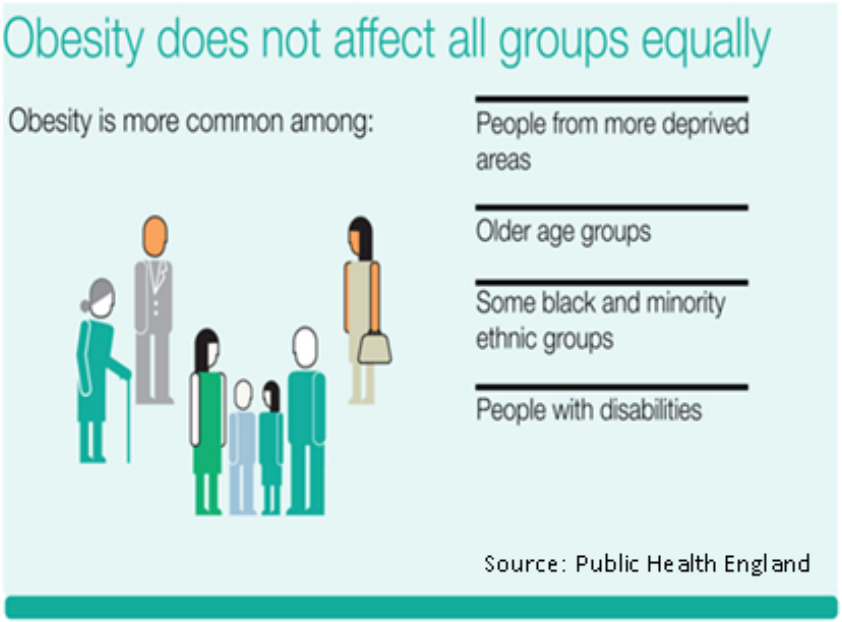
People from more deprived areas

Obesity prevalence has a strong association with socio-economic inequalities, the prevalence being highest amongst those from poorer backgrounds.

Children:

In the Thames Valley, data from the National Child Measuring Programme (NCMP) plotted against the Index of Multiple Deprivation (IMD)[7] shows an almost linear association between increasing prevalence of childhood overweight and obesity and rising levels of deprivation. 'Obese children are more likely to be ill, absent from school due to illness, experience health-related physical limitations and require more medical care than normal weight children' (National Obesity Observatory: Deprivation

We estimate there are around 2,300 children living in poverty in Reading. (Reading Borough Council Corporate Plan 2015-19).



Adults:

Men and women in unskilled, manual occupations are more likely to be obese than those in professional occupations.

Whilst Reading benefits from high employment and high earnings, there are some areas in the borough that are experiencing high and rising levels of deprivation. Between the 2001 census and the most recent census in 2011, two areas in South Reading (the far south of Whitley ward and to the south of Northumberland Avenue in Church ward) fell into the 10% most deprived areas in England (Reading JSNA 2016)

[7] IMD - a composite measure of deprivation based on data from seven domains (income; employment; health and disability; education, skills and training; housing and services; crime; and living environment)

Obesity in older age groups:

Data from the National Obesity Observatory (NOO) shows that in adults, the prevalence of obesity is lowest in the 16-24 year age group and progressively increases with age up until the 55-64 year age band in men and the 65-74 year age band in women; after which prevalence begins to decline.

Overweight and Obesity in BME Groups:

35% of Reading's population are from Black and ethnic minority groups (Reading Borough Council Corporate Plan 2015-19)

Different ethnic groups tend to have different patterns of body fat storage, and the extent to which body fat increases the risk of health issues such as diabetes and cardiovascular disease varies accordingly.

For example, South Asian populations tend to have an increased risk of obesity-related diseases at a lower body mass index and waist circumference than European populations.

In addition, health-related lifestyle behaviours and beliefs related to religion, culture and socio-economic status can impact on the risk of obesity and related health conditions. For example, certain ethnic groups living in the UK are more likely to live in areas of deprivation (see below) - a known risk factor for overweight and obesity in women and children.

There is a trend in certain ethnic minority groups to have lower physical activity levels in the UK, for example, South Asian populations, particularly the Bangladeshi community, tend to have lower levels of physical activity than the White population.

Summary of data relating to obesity in BME groups:

Adults:

There is little nationally available data on obesity prevalence in British Minority Ethnic (BME) groups living in the UK. However, women from Black African groups appear to have the highest prevalence of obesity and men from Chinese and Bangladeshi groups have the lowest.

Women appear to have a higher prevalence in virtually all minority ethnic groups, particularly amongst Pakistani, Bangladeshi and Black African communities. These differences have been linked to diet, lower levels of physical activity and socio-economic status.

Children:

Data from the National Child Measuring Programme broken down by ethnicity shows that:

- Obesity prevalence tends to be lower in children from White British ethnic groups.
- In Reception, obesity is most prevalent in Black African, Black Other and Bangladeshi boys.
- By Year 6, boys from all BME groups have a higher prevalence of obesity than white British.
- In girls in Reception and Year 6, obesity prevalence is highest in Black African and Black Other groups.
- Obesity prevalence in children from some Asian groups, (particularly Bangladeshi, Asian Other and Pakistani ethnicity), is as high or higher, than is seen in Black African and Black Other ethnic groups

Overweight and obesity in people with physical or learning disabilities:

Although data is limited, people with physical or learning disabilities tend to have a higher propensity to obesity and lower physical activity levels than the general population.

Similarly, people who are obese are more likely than those of a healthy weight to suffer from arthritis and back pain from increased stress on the joints, learning disabilities or mental health disorders; this has a significant impact both on the individual and on health and social-care services.

Data from the Health Survey for England (2006-2010) shows that 33% obese adults have a limiting long-term illness or disability

In 2014, Reading was estimated to have 7,194 people with a moderate physical disability and 1,969 with a severe disability who were aged 18-64.

The Projection of Adults Needs and Service Information (PANSI) estimates that 590 people in Reading had a moderate or severe learning disability in 2015, with the largest proportions aged 25-34 and 35-44.

For adults suffering from a disability who are also obese, socio-economic disadvantages and discrimination may be compounded.

http://www.noo.org.uk/uploads/doc/vid_18474_obesity_dis.pdf

Obesity and mental health:

The 'Obesity and Mental Health'[8] paper published by the National Obesity Observatory in 2011 concluded that there are strong associations between mental health and obesity. In addition, research found correlations between obesity and significant childhood maltreatment, which tends to manifest in later life as a result or trauma and poor attachment.

The paper highlights that there are bi-directional associations between mental health problems and obesity. A systematic review of longitudinal studies examining the relationship between obesity and depression concluded that obese people have a 55% increased risk of becoming depressed and people suffering from depression have a 58% increased risk of becoming obese.

The reason behind this association in adults is believed to be due to a number of factors, including poor self-esteem and stigma, unhealthy lifestyle behaviours, medication, hormonal and functional impairment, dieting and weight cycling (repeated loss and regain of excess weight). These associations are particularly pronounced in women, lower socio-economic groups and in cases where people are extremely obese.

Evidence linking obesity and poor mental health is less consistent in children and adolescents. However, there is some evidence to suggest that obesity in adolescence can lead to an increased risk of depression in adulthood and that the symptoms of depression in adolescence increase the risk of obesity in adulthood.

[8] Luppino FS, de Wit LM, Bouvy PF, Stijnen T, Cuijpers P, Penninx BWJH, et al. Overweight, obesity, and depression: a systematic review and meta-analysis of longitudinal studies. Archives of General Psychiatry 2010;67(3):220-9

These associations are more pronounced in girls than boys and may be related to a number of factors including lack of physical activity, weight-related bullying, low self-esteem, medication, family breakdown, eating disorders and poverty.

Perception of body weight and related stigmatisation varies across cultures, ages and ethnic groups. Perception of, rather than actual obesity, is a stronger predictive factor for mental health disorders.

Weight-related bullying is of particular concern in children and adolescents, where it has been linked to poor self-esteem, depression, avoidance of exercise and disrupted eating behaviours.

The paper makes a number of recommendations to ensure that interventions for obesity and mental health disorders include consideration or both physical and mental health; including:

- Recognising the risk of co-morbidity when treating obesity and mental health disorders to support detection, prevention, early intervention and co-treatment.
- Using strategies that help overweight people to improve self-worth and self-efficacy as tools to improve overall wellbeing.
- Ensuring programmes to tackle obesity in children and adolescents address wider social and emotional issues as well as diet and exercise.
- Building stronger social and parental support can help children and adolescents avoid or deal with psychological distress and unbalanced eating behaviours.
- Ensure and support continued, robust evaluations of weight management interventions, to measure impact on both weight loss and psychological benefits.

Where to find more information on obesity – links and resources.

Data Sources.

Data Patterns and trends in childhood obesity – Public Health England 2016, Childhood Obesity Slide Set.

National Obesity Observatory

NCMP Local Authority Profile – Public Health England

Reading Joint Strategic Needs Assessment

Health Outcomes data on physical activity & inactivity, by local authority

National Diet and Nutrition Survey: results from 2008 – 2012

Full list of relevant NICE guidance.

Physical activity: encouraging activity in all people in contact with the NHS (March 2015)

Obesity: identification, assessment and management in children, young people and adults (November 2014)

Exercise referral schemes to promote physical activity (September 2014)

Managing overweight and obesity in adults (May 2014)

Behaviour change: individual approaches (January 2014)

Managing overweight and obesity among children and young people (October 2013)

Physical activity: brief advice for adults in primary care (May 2013)

Physical activity brief advice for adults in primary care (May 2013)

Obesity: working with local communities (November 2012)

Walking and cycling: local measures to promote walking and cycling (November 2012)

Preventing type 2 diabetes: risk identification and interventions for individuals (July 2012)

Preventing type 2 diabetes: population and community level interventions (May 2011)

Prevention of cardiovascular disease (June 2010)

Prevention of unintentional injuries: PH29 (June 2010)

Promoting physical activity for children and young people (January 2009)

Promoting physical activity in the workplace (May 2008)

Community engagement (February 2008)

Physical activity and the environment (January 2008)

The full NICE pathway of physical activity guidance, advice and recommendations can be found here.

National Action on Obesity:

The National Childhood Obesity Action Plan (August 2016)

Everybody active, every day (2014)

NICE guidance PH17: 2015 promoting physical activity for children and young people:

Evidence update March 2015

CMO physical activity guidance (2011)

National Policy:

Why 5% An explanation of SACN's recommendations about sugar and health - Public Health England (2015)

Carbohydrates and Health Scientific Advisory Committee on Nutrition (2015)

Government response to health select committee report on Impact of Physical Activity on HealthDepartment of Health (2015)

Sugar reduction, responding to the challenge – Public Health England (2014)

Sugar and Health PostNote - Parliamentary Office of Science and Technology (May 2015)

Change4Life evidence review physical activity Public Health England (2015)

Additional references:

Breastfeeding & obesity, Burke 2005, Harder 2005

Gaillard R, et al (2014) Childhood Cardiometabolic outcomes of maternal obesity during pregnancy: the Generation R study. Hypertension; 4(63):683-91

Appendix 1: Summary of NICE Guidance

1.1 Maternal weight

NICE recommends that women with a BMI of 30+ should try to lose weight before becoming pregnant to reduce the risk of complications during pregnancy and childbirth, as well as to protect their own health from the consequences of excess weight:

- Mothers who are obese when pregnant have an increased risk of giving birth to an overweight baby compared to mothers who are a healthy weight.
- Babies born to obese mothers are at an increased risk of foetal death, stillbirth and a number of health conditions including congenital abnormalities and obesity (Ramachenderan et al. 2008).
- A mother who is obese or who has either pre-existing or gestational diabetes when she becomes pregnant will predispose her child to carrying an increased number of fat cells, which is associated with obesity and other metabolic diseases. Therefore, education, awareness and access to healthy weight programmes for women of child-bearing age are important steps in helping more mothers to be a healthy weight when they conceive.
- The risk of obesity can be passed down through generations due to both biological and behavioural influences. Poor nutrition, both in the womb or in early childhood can affect gene function. Babies born with a low birth weight or who are 'short for age' can be at increased risk of overweight and obesity in later life, especially if exposed to an obesiogenic environment[9].
- Children often 'inherit' socio-economic status, dietary and physical activity behaviours and norms from their parents. Both maternal and paternal obesity have been identified as risk factors for childhood obesity and the effects are additive (i.e. the risk is even greater if both parents are obese).

1.2 Breast-feeding

There is mounting evidence to suggest that breast-feeding reduces a baby's risk of becoming overweight and developing high blood pressure and diabetes in adulthood compared to formula feeding (see "Benefits of Breastfeeding' on NHS choices').

Encouraging women to try and Breast-feed, at least initially, can confer significant health benefits to the baby. This may be due babies learning to self-regulate food intake more effectively when breast-fed. As lifelong eating habits are shaped significantly during early years, this can impact on the risk of a child becoming obese in later life.

[9] An environment where high energy food is plentiful and which does not support a physically active lifestyle, therefore increasing the likelihood of weight gain.

1.3 Early Years settings

Many eating behaviours and preferences are learned in the first two years of life and physical activity levels in early years can impact on future risk of obesity, cardiovascular disease, development of motor skills, cognitive development and psychosocial wellbeing (Physical Activity in Early Years Evidence Briefing – Oct 2015).

Therefore opportunities to be physically active and healthy catering in early years settings are important factors impacting on future risk of obesity

1.4 Maintaining a healthy weight in children

Young people develop lifelong eating and activity behaviours throughout their school years. Providing an environment that fosters healthy, balanced eating habits and encourages children to take part in a variety of enjoyable opportunities to be physically active can impact on weight status, health and wellbeing and school attainment.

Educational and care settings can support children's health by:

- providing an appealing dining environment,
- encouraging school meal uptake,
- considering the content of vending facilities,
- developing active travel plans
- providing inclusive, active recreational opportunities and spaces.
- considering how to encourage and involve the least active children.
- encouraging parents to ensure their children get enough sleep.
- encouraging families to eat meals together.

1.5 Maintaining a healthy weight and preventing excess weight gain in adults

NICE guidance recommends a sustainable increase in physical activity levels and adoption of healthy eating habits that will help people to achieve energy balance. This should be based on the current Chief Medical Officer recommendations on physical activity and Department of Health Eatwell guidance.

NICE recommendations note the importance of:

- avoiding extreme exercise and dietary behaviours.
- Encouraging adults to limit their alcohol intake.
- Encouraging self-monitoring of weight.
- Clear communications about the benefits of being a healthy weight and making gradual improvements to dietary and physical activity habits.
- Tailoring health messages for different groups.
- Encouraging employers to consider building layout, changing / cycle storage facilities and healthy eating in workplace restaurants / vending facilities.
- Integrating activities with the local strategic approach to obesity.

1.6 Tier 2 interventions for children

NICE say weight management programmes for children and young people should include the core components of:

- diet and healthy eating habits
- physical activity that children and young people enjoy.
- reducing the amount of time spent being sedentary
- strategies for changing the behaviour of the child or young person and all close family members.
- Positive parenting and problem-solving skills.
- A tailored plan to help the family to set goals, monitor progress against them and provide feedback

NICE guidance (PH47) – Recommendations for weight management for overweight or obese children and young people

1.7 Tier 2 programmes for tackling obesity in adults

NICE guidance suggests programmes to tackle obesity in adults should be:

- be multi-component and address diet, physical activity levels and behaviour change.
- encourage realistic goal setting - aiming to help people to lose 5-10% of their weight.
- recommend an average weight loss of 0.5-1kg each week.
- focus on sustainable lifestyle changes rather than on short-term quick-fixes.
- be multi-component - addressing diet, physical activity and behaviour change.
- focus on sustainable lifestyle change and the prevention of future weight gain
- be of at least 3 months duration and take place at least weekly or fortnightly, including a 'weigh-in' at each session.
- ensure specific dietary targets are agreed based on individual needs and goals
- ensure any supervised physical activity sessions are led by an appropriately qualified physical activity instructor and take into account any medical conditions.
- use a variety of behaviour-change methods and address weight regain.

NICE Guidance (PH53) - Recommendations on weight management & lifestyle services for overweight or obese adults

1.8 Tier 3 obesity programmes

Tier 3 programmes should adhere to the same NICE recommendations on healthy eating, physical activity and behavior change as adult Tier 2 programmes detailed above.

However, they should be run by a specialist multi-disciplinary team including multidisciplinary team including a Dietitian, exercise specialist and psychological therapist.

1.9 Tier 4 obesity interventions

NICE guidance recommends bariatric surgery as a treatment option:

- For patients with a BMI of 40kg/m2 or more, or patients with a BMI between 35kg - 40kg/m2 plus other significant disease (like type 2 diabetes or high blood pressure) that could improved by losing weight
- Where appropriate non-surgical measures have been tried but the person has not achieved or maintained adequate, clinically beneficial weight loss
- The patient has been receiving or will receive intensive management in a tier 3 service.

NICE guidance (CG189) Obesity: identification, assessment and management