

## Adult Excess Weight

### Introduction

This section discusses Adult Excess Weight. A chapter on Childhood Excess Weight is also available.

### What do we know?

#### Facts, Figures, Trends

England is one of the most overweight nations in the world; the majority of adults are either overweight or obese. Excess Weight is influenced by genetics, gender, ethnicity, and socioeconomic deprivation. It is therefore important that services are targeted in areas with a high concentration of black and minority ethnic (BME) groups and in wards with high levels of socioeconomic deprivation<sup>1</sup>.

In England, the prevalence of obesity among adults rose from 14.9% to 24.9% between 1993 and 2013. The rate of increase has slowed down since 2001, although the trend is still upwards. The prevalence of overweight has remained broadly stable during this period at 37–39%<sup>2</sup>. Currently, 64.8% of adults have excess weight<sup>3</sup>. By 2050 obesity is predicted to affect 60% of adult men, 50% of adult women and 25% of children<sup>4</sup>.

About half of women of childbearing age (16 to 44 years) in England are either overweight or obese. The prevalence of obesity in women of this age has increased over time from around 12% in 1993 to over 19% in 2013<sup>2</sup>. Around 1 in 6 pregnant women are obese<sup>5</sup>.

### Local Prevalence

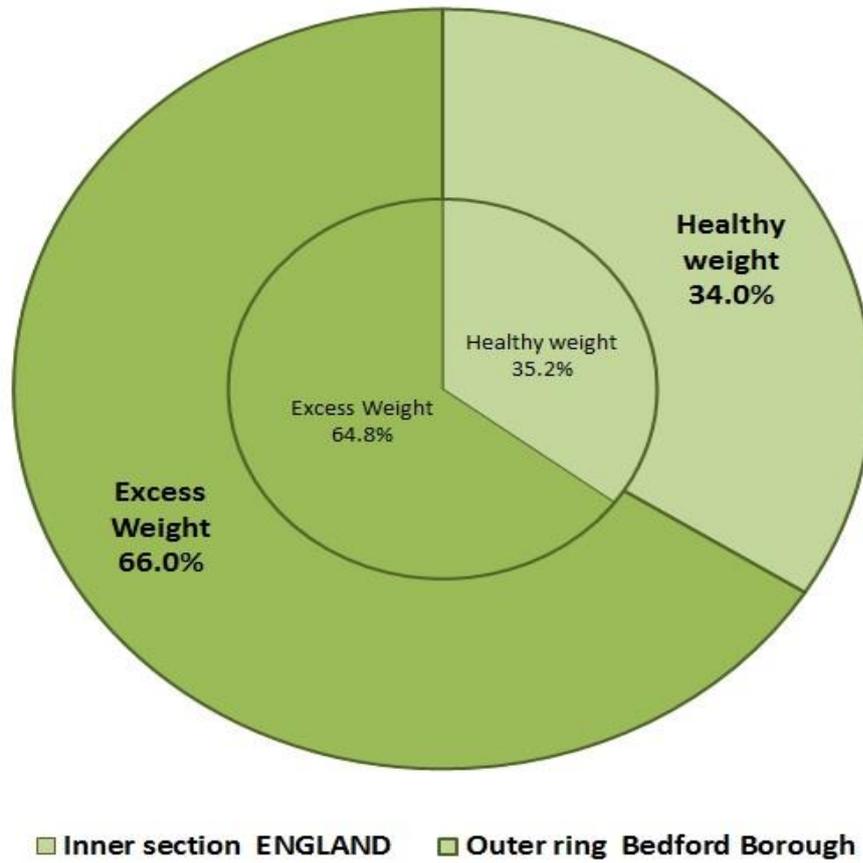
In Bedford Borough the latest data modelling suggests an **adult excess weight prevalence of 66.0%**<sup>6</sup>. This equates to approximately 27,000 obese adults and 45,000 overweight adults, a total of 84,705 adults with excess weight in Bedford Borough. As a comparison, the East of England average for excess weight is 65.6% and the England average is 64.8%.

Comparative data for England can be viewed at the National Obesity Observatory website <http://www.noo.org.uk/> or <http://www.phoutcomes.info/>.



# ADULTS

2013-2015 3yr aggregated



Ward level data is available for 'obesity' only, based on modelled estimates. The seven wards in Bedford Borough with the highest prevalence are below:

	Ward of residence	% Obese <sup>1</sup>
1.	Kempston South	29.2%
2.	Kempston West	28.6%
3.	Kempston Central and East	27.7%
4.	Goldington	26.7%
5.	Kempston North	26.6%
6.	Eastcotts	26.6%
7.	Wilshamstead	26.6%

<sup>1</sup> Data from 2012-2013



## **Dietary Intake and Physical Activity**

The average number of portions of fruit consumed daily by adults in Bedford Borough is 2.53 (compared to 2.51 nationally). The average number of portions of vegetables consumed daily is 2.25 (2.27 nationally). Although similar to the national averages, both these figures are significantly lower than the Government recommendation of '5 a day'. In fact, only 52.9% of adults in BBC meet the recommended '5 a day' guideline on a 'usual day'<sup>6</sup>.

Access to healthy affordable food is an essential component of achieving and maintaining a healthy lifestyle. A whole community approach can contribute to this by ensuring healthy food is grown and sold locally, enabling people to access growing spaces and teaching children how to grow and prepare food. Food security is when people have access to sufficient, safe and nutritious food to maintain a healthy and active life. This includes the physical availability of and economic access to food, as well as the nutritional knowledge and skills to prepare and cook healthy food. Food poverty occurs when people are unable to access or afford healthy food.

Eating meals outside of the home is becoming ever more frequent, with 1 in 6 meals being consumed outside of the home<sup>7</sup>. Fast-food is energy dense, but nutrient poor, and the link between energy dense food and obesity is well documented. Foods purchased from fast-food outlets and restaurants are up to 65% more energy-dense than the average diet<sup>8</sup>. An average meal from a fast-food chain is 1015 kilocalories<sup>9</sup>, half the recommended daily calories for a woman (2000 kcals) in just one meal, and just under half for men (2,500 kcals), not to mention the high amounts of fat (42g), sugar (52g) and salt (2.9g). To burn off this meal, an adult would need to run for 1-2 hours<sup>10</sup>. An average child's meal contains 24g of fat (red traffic light) and 2.2 g salt (daily recommended maximum salt intake for a child aged 4-6 years is 3g salt)<sup>9</sup>. A child would have to run 1.5-2 hours to burn off this meal<sup>10</sup>. However, surveys have found that only 21% of boys and 16% of girls aged 5-15 years are reaching the recommendation of 60 minutes a day of physical activity<sup>11</sup>.

In terms of Physical Activity, only 59.8% of the Bedford population achieve at least 150 minutes of physical activity per week in accordance with the UK Chief Medical Officer (CMO) recommended guidelines on physical activity<sup>6</sup>.

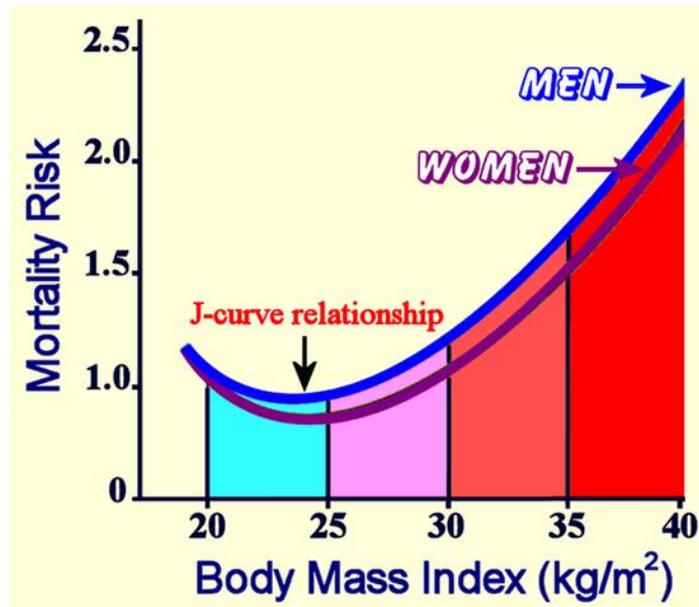
### **How does obesity affect adults?**

Excess weight is linked to poor health, and poor social outcomes, including hypertension, Coronary Heart Disease, stroke, type 2 diabetes, premature death, osteoarthritis, depression, cancers, infertility, asthma, sleep apnoea, and unhealthy blood cholesterol levels<sup>1,2,4,12,13</sup>.

Overweight and obese individuals are more likely to be subject to social discrimination,

including lower earning power, and there are adverse consequences for the wider economy from lost working days and increased benefits payments<sup>14</sup>.

**Figure 1. Increasing risk of mortality (death) with rising BMI**



Calle *et al.*, (1999)<sup>15</sup>.

Image retrieved from: [www.endotext.org/obesity/obesity13/figures/figure2.png](http://www.endotext.org/obesity/obesity13/figures/figure2.png) (accessed 01.09.2016)

The above figure shows that as BMI increases, so does the risk of mortality (death).

When compared to healthy weight individuals:

<b>An obese man is:</b>	<b>An obese woman is:</b>
5 times more likely to develop type 2 diabetes	Almost 13 times more likely to develop type 2 diabetes
3 times more likely to develop cancer of the colon	More than 4 times more likely to develop high blood pressure
> 2.5 times more likely to develop high blood pressure, a major risk factor for stroke and heart disease	More than 3 times more likely to have a heart attack

It is possible to estimate the disease specific attributable proportion of obesity, that is, that proportion of a population with a given disease who would not have that disease if they were not obese:



	<b>Hypertension</b>	<b>CVD</b>	<b>Diabetes</b>
Disease Specific attributable proportion (%)	24.1	20.2	24.1
Bedford Borough attributable population	5007 <sup>a</sup>	4856 <sup>a,b</sup>	1805 <sup>a</sup>

a. QMAS 2011 data

b. QMAS 2011 data including CHD, atrial fibrillation, stroke, heart failure.

The proportion of chronic disease that is attributable to obesity will increase substantially if current levels are not halted or reversed; this will in turn lead to high levels of sickness absenteeism and increased levels of poor mental health<sup>16</sup>.

### **Maternal Obesity**

Maternal obesity is associated with increased morbidity and mortality for both the woman and her unborn child<sup>17</sup>. Pregnant women who are obese are at increased risk of:

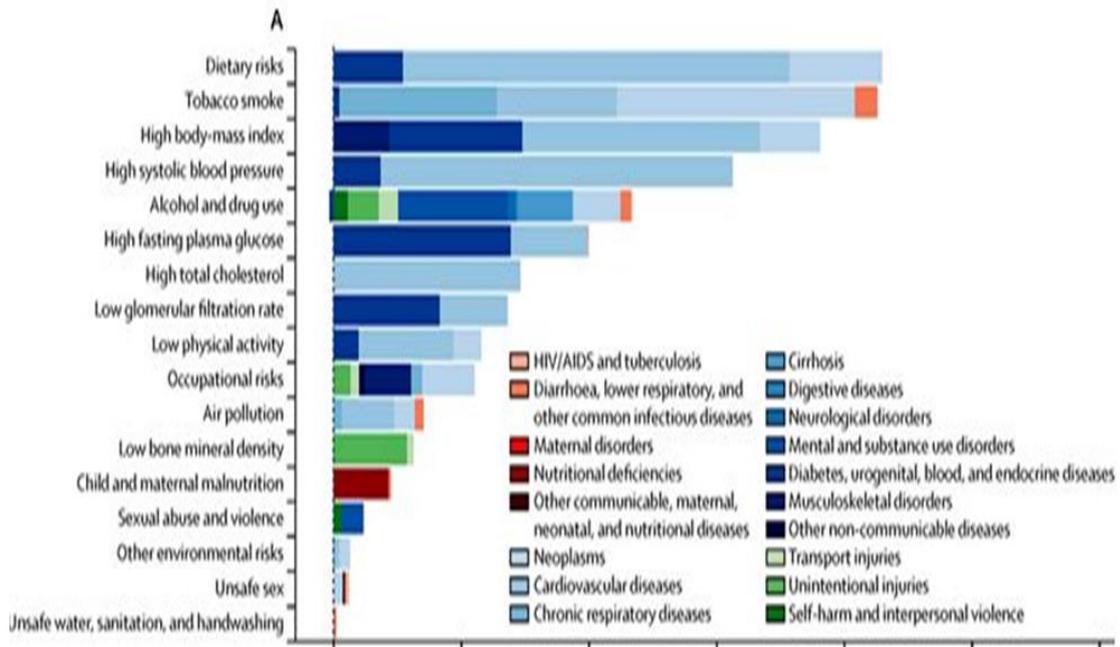
- Developing gestational diabetes
- Having a raised blood pressure and pre-eclampsia
- Having a blood clot in the legs (DVT)
- Having a large or ill baby needing increased monitoring which can lead to complications in labour
- Having a Caesarean section
- Difficulty in sitting for an epidural or an anaesthetic
- Having a wound infection, leading to a longer hospital stay
- (Rarely) having complications following surgery and delivery requiring intensive hospital care.
- Having a still-birth or intra-uterine death.

There is evidence that children born to overweight or obese mothers, tend to have higher birth weights, and become overweight children, and subsequently overweight adults<sup>18</sup>. There is also evidence that infants exposed to an obesogenic environment during uteri use on average an extra £1,138 in NHS resources throughout the first year of life, in comparison to infants born to mothers with a healthy BMI, likely due to the above mentioned complications<sup>19</sup>.

The Maternity Services Data Set (MSDS) has been developed; data will be collected monthly and the reports are available to read at - <http://www.hscic.gov.uk/catalogue/PUB19869>  
In July 2015, 25% of pregnant women who attended an appointment at Bedford Hospital were overweight and 16.6% were obese.

### **Ill-health due to Poor Diet**

The below chart shows Disability-Adjusted Life-Years (DALYs) attributed to level 2 (behavioural) risk factors in 2013 in England for both sexes combined. Sub-optimal diet is the leading cause of DALYs, and in fact has surpassed Smoking. The combination of unhealthy diets, physical inactivity, and high BMI, all of which are modifiable risk factors, is the biggest overall contributor to DALYs<sup>20</sup>.



<sup>20</sup>Newton JN et al., (2015) Changes in health in England, with analysis by English regions and areas of deprivation, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet. S0140-6736(15)00195-6.

### What does obesity cost?

In 2008 obesity cost NHS Bedfordshire £98.8 million, this figure was projected to rise to £136 million by 2015 without concerted action<sup>21</sup>. Estimated social care costs are difficult to quantify. However nationally, 70% of total health and social care spend is on long-term conditions attributable to excess weight and poor lifestyles (diabetes, cardiovascular disease, muscular skeletal disease, some cancers and mental health problems). The wider cost to the economy is estimated at closer to £20billion a year once factors such as lost productivity and sick days are taken into account<sup>22</sup>.



Public Health England (2015) – 'Why invest in Obesity'.<sup>16</sup>

The management of long term conditions often requires social care support. Severely obese people are over 3 times more likely to need social care than those who are a healthy weight<sup>23</sup>. Some of the social care costs for obesity related conditions such as stroke, diabetes, hypertension are likely to consist of:

- The provision of ongoing support including re-enablement
- The provision of personal non-clinical care (washing, dressing, cleaning, meals etc.)
- Developing a Personal Independence Plan (PIP)
- Disability living allowance
- The blue badge scheme (disability mobility badge)
- Lost income due to lost working days due to illness and premature mortality
- The lack of ability to provide meaningful contribution to local community
- The carer becoming a recipient of care – care still required for person cared for plus themselves in addition
- Disabled Facilities Grants (DFG – walk in showers, stair-lifts etc.)

The cost of obesity to the wider economy (including costs to Local Government and the NHS in primary and secondary care) is around £27 billion a year. However, for every participant on a 12 week weight management programme, the NHS stands to save £230 over a lifetime. Physical activity programmes also produce a return on investment between £8-£23 for every £1 spent<sup>14</sup>. This therefore justifies the costs associated with the prevention and management of obesity.

### **National and Local Strategies (Current Best Practices)**

It is important to implement any preventative and management interventions together with



robust monitoring and evaluation protocols. To help make healthy living the easy choice it is imperative that services within Bedford Borough Council and external services work together to ensure an aligned service for the local population. This will help to ensure that children, adults and families are not 'lost to the system', and that adequate support is given to those families who require it most. There should be a range of opportunities (triggers) to engage adults, and support them to manage their weight.



Public Health  
England

## Partnership: the key to success



Since there is evidence of a direct and indirect impact of various influences on weight (including physical activity, poverty, learning disability, healthy eating, educational attainment, transport, employment and relationship status), the excess weight agenda is wide, and is essentially 'Everybody's Business'. This means working together with a range of BBC departments and internal and external services:

- Planning
- Environmental Health
- Travel
- Leisure and culture
- Parks and green spaces
- Education and Learning
- Health and Social Care
- Housing
- Workplaces
- Healthwatch
- The voluntary sector
- BCCG/Bedford Hospital



In addition, this means ensuring that we are contributing and adhering to a range of national and local strategies and documents including:

- Bedford Borough Excess Weight Partnership Strategy
- BBC Public Health Strategy
- Healthy Bedford Borough Strategy
- BBC/NHS Bedfordshire Healthy Weight Strategy
- Inequalities Report
- Public Health National Indicator Outcomes Framework
- Joint Health and Wellbeing Strategy
- Green Spaces Strategy
- Community Sports Partnership Plan
- County Sports Partnership Plan
- BBC Corporate Plan
- BBC Sustainable Community Strategy
- BBC Community Safety Plan
- BBC Sports Development Strategy
- Department of Health – Update on the Government Approach to Tackling Obesity
- Healthy Lives Healthy People, a call to action on obesity
- Sport England: Towards an Active Nation Strategy 2016-2021
- The National Planning Policy Framework (NPPF)
- Tackling Obesity, Local government’s new public health role
- Early Intervention / Early Help Strategy
- BBC Transport Policy

### **What is this telling us?**

#### **What are the key inequalities?**

Whilst everyone is susceptible to obesity, levels are disproportionately higher in the lower socio-demographic/socially disadvantaged groups, and some ethnic groups. The South Asian population in particular are at risk of chronic diseases and mortality at lower BMI levels than the European population<sup>23</sup>. Women from Black African groups appear to have the highest prevalence of obesity and men from Chinese and Bangladeshi groups have the lowest<sup>3</sup>.

Men have a higher prevalence of obesity than women (26% compared to 24%), and are more likely to be overweight (41% compared to 33%)<sup>3</sup>.

#### **What are the challenges in obesity?**

With the exception of gender and ethnicity, many of the risk factors for obesity are modifiable and centre upon healthy lifestyle changes towards a healthier diet and more physical activity in everyday life. This requires more than information alone; the three key elements that must converge at the same time in order for behaviour change to take place are:

- A trigger
- Motivation
- Ability<sup>24</sup>



The challenge is to create an environment in which these three elements are present and this should be a starting point for all commissioning of services to help prevent weight gain or manage weight. Although overweight and obesity are clinical terms, they have taken socially derogative connotations to a point where stating a person is obese is typically considered offensive.

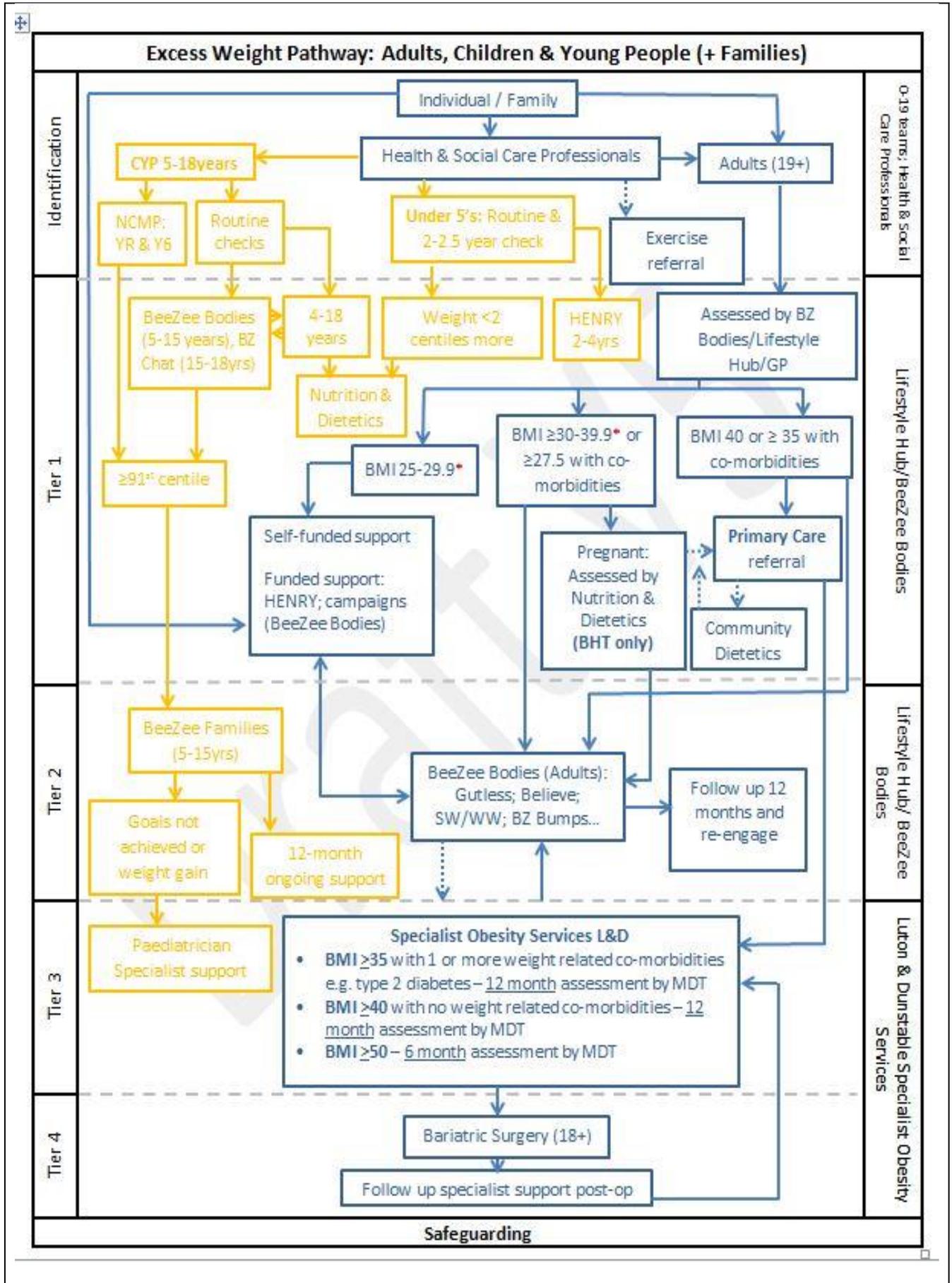
There is a common misconception regarding the genetic element of obesity and this can affect the response toward taking action (as described above). Although genes contribute to the way that the body reacts to diet and exercise, in the vast majority of cases, making lifestyle changes are effective tools in managing weight.

### **What are we doing and why?**

Obesity management and prevention is separated into 4 tiers. Tier 1 services are universal and preventative in nature, and include health promotion and population level communication (i.e. Change 4 Life). Tier 2 services are targeted lifestyle interventions through primary care, commercial, or bespoke weight management programmes (sometimes with medication (i.e. Orlistat)). Tier 3 is a specialist multi-disciplinary weight management programme delivered within a hospital setting. Finally, tier 4 is bariatric surgery.

Prevention and management of overweight and obesity are complex issues. The Excess Weight Partnership Strategy 2016-2020 for Bedford Borough identifies actions for delivering this agenda county wide ([click here to open document](#)). There are a number of services that have been commissioned to prevent and manage issues pertaining to weight in Bedford Borough.

The Excess Weight Management Pathway is below:





Excess weight services are commissioned or developed in accordance with the guidance developed by the Medical Research Council (2006)<sup>25</sup>. This ensures that an appropriate evidence base is used to justify its effectiveness and value for money when developing and evaluating complex interventions. Where there is inadequate evidence to commission a service, or no service currently exists, services are developed and evaluated in order to ensure that action is being taken in the areas necessary whilst evidence is being collected<sup>4</sup>.

BeeZee Bodies CIC is the excess weight management services provider in Bedford Borough. The following services and products have been commissioned by Public Health:

**BZ Bumps: Maternal Obesity programme** - delivering healthy living information and support to pregnant women with a BMI > 30. The programme provides information on nutrition as well as safe physical activity sessions, ante and post-natal. The programme recruits from midwifery at Bedford Hospital and the Luton and Dunstable hospital. This service is commissioned 2015-2019.

*"I think more about healthier options. I think about portion control. I eat more brown bread as opposed to white. I drink more milk and orange juice instead of fizzy. I am more aware of habits I have that I don't want my children to have"* (Participant Maternity Programme)

**Weight Watchers: Commercial Weight Management Referral Scheme** – 12 weeks free of charge for patients who are eligible but are unable to afford the cost. A third of all patients who started a 12 session course achieved ≥5% weight loss, which is associated with clinical benefits. Losing 5%+ of body weight has been associated with reduced blood pressure and a reduced risk of Type 2 Diabetes and Cardiovascular Disease<sup>26</sup>.

**Slimming World: Commercial Weight Management Referral Scheme** - 12 weeks free of charge for patients who are eligible but are unable to afford the cost. A total of 54.7% of completers lost at least 5% initial body weight.

*"It has changed my life. I feel so much better in myself and it wasn't as scary or hard as I thought!"*  
(Adult who took part in a commercial weight management programme)

The below services have been commissioned as part of a 2-year innovation pilot:

**Gutless: Weight Management for Men** - a programme designed specifically for men. Upon enrolling, men will have a health and fitness assessment, and are able to choose what services they access. Options include nutrition sessions, web-based 1:1 support, goal setting and motivational support, free or reduced rates for existing BB exercise groups and games or gym based activity sessions.

**Believe: Weight management for Faith-based Groups**- Approximately 70% of Bedford Borough residents belong to a faith-based group. This programme is delivered by a member of BZ Bodies CIC and a member of the faith organisation. This programme aims to engage with hard to reach groups and to tailor messages.

**Web-Based Video Chat: Weight Management Support Online** - This pilot service is a new way of being able to reach those who would otherwise struggle to access services (e.g those with disabilities, single parents with small children, those in very rural locations where



transport is difficult). It consists of a 10 week programme, offering weekly 1:1 sessions with a qualified nutritionist and personalised support including goal setting, over a live web-based chat.

### **Bedford Borough Excess Weight Partnership Strategy**

A range of childhood obesity prevention and intervention services are in place (as described above). However the causes of excess weight are complex and multifactorial, and wider determinants including the so-called 'obesogenic environment' must also be addressed. These are the processes behind excess weight, which are complex and varied based on physiology, psychology, powerful marketing messages and the social settings we live in.

Tackling excess weight requires a 'whole systems' approach, creating strong links with other directorates, and internal and external services such as Environmental Health, Planning, Transport, the 0-19 team and the voluntary sector. These plans are formalised in the Excess Weight Partnership Strategy 2016-2020 <L:\PublicHealthBedfordBorough\Children and YP\Catherine\EW Implementation Plan\BBC Excess Weight Partnership Strategy.pdf>. A Countywide Excess Weight Strategy Implementation Group meets twice a year.

The following joint projects are currently underway:

- The development of a Supplementary Planning Document with Planning Policy and Development Management to include Health Impact Assessments (HIA) in new development applications.
- A 'Healthier Options' Food Award scheme for existing and new food businesses in partnership with Environmental Health.
- A School Travel Accreditation Scheme with Transport Policy
- A Healthy Children's Setting Accreditation Scheme in partnership with Early Help.
- A Nutrition and Dietetics (Bedford Hospital) review of food available across the Trust.

Physical Activity services commissioned by Public Health:

**Exercise Referral Gym / Physical Activity Programme** – A 10 week gym based or physical activity based programme delivered by qualified instructors to improve the health of patients with a range of conditions that may benefit from increase physical activity levels. Regular physical activity can reduce the risk of many chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions. Even relatively small increases in physical activity are associated with some protection against chronic diseases and an improved quality of life<sup>27</sup>. These benefits can deliver cost savings for health and social care services and are recommended by NICE (2006)<sup>28</sup>, even in the absence of weight loss due to the associated health benefits. In Bedford Borough there is a newly redesigned service with better accountability, more



efficient booking and follow up, and more effective reporting procedures has been recently implemented to improve the quality of referrals.

**Lifestyle Hub (GP Referral Support)** – A programme which uses motivational interviewing to establish the most effective referral programme for clients based on their individual circumstances. It is likely that this will improve the quality of referrals into the above programmes by facilitating 20 – 30 minute discussions regarding lifestyle and assessing the programme that is most likely to have the greatest effect. The addition of the Let's Get Moving (LGM) programme for patients who suit this method most adds a further dimension to the services available to Bedford Borough patients. According to the NICE guidance, Let's Get Moving provides a robust vehicle to implement brief interventions for physical activity while harnessing the health benefits of this clinically effective and cost-effective methodology<sup>29</sup>.

[N.B. Motivational interviewing is a directive, patient-centred counselling approach focused on exploring and resolving ambivalence enhance intrinsic motivation and promote confidence in a person's ability to make behaviour changes (employed by the Lifestyle Advisors). There is much evidence reporting the efficacy of motivational interviewing in modifying behaviours and this is a central component of the Let's Get Moving programme, mentioned above<sup>30</sup>].

**Bedford Borough Sports Development Team-** aims to provide quality opportunities at all levels of sport, promoting sport as an activity that enables individuals to develop their own performances to their maximum potential, whilst highlighting the personal and social benefits of a healthy lifestyle. Sports development is concerned with increasing sporting opportunities for ALL members of the community:

- ReActive8 : adults (30-55 years)
- ReActive8 Gold: adults (50+ years)
- Over 70's Gentle Exercise Classes-adults (70+ years)
- No Limits- Disability sports sessions
- Mindful Sport- Social physical activity sessions for mental health and wellbeing.
- Increase awareness and referrals to BeeZee Bodies programmes.
- Supporting public health in the implementation of the new OOMPH initiative for 2017 to increase activity in care home settings.
- Funded through the Borough Council and Big local, new park gym equipment at Jubilee Park and Etrick drive were installed in 2016.

The Just Turn Up programme secured funding of £250,000 from Sport England in 2014 to deliver a wide range of activities and to promote physical activity opportunities for 14 – 30 year olds in the 6 key deprivation areas of the Borough. The programme runs for 8 weeks 3 times a year which creates a good consistency of activity for those who cannot make any long



term commitment. The programme has the flexibility for participants to try more than one activity in order to find their niche and offers affordability for those who are part of the socio economic demographic within our Borough.

**OOMPH! Wellness-** Oomph! provides professional training and support to care home staff to create Exercise Leaders capable of delivering safe, inspiring, imaginative and impactful physical activity classes for the elderly.

### **What are the unmet needs/ service gaps?**

The principal unmet needs include universal access to high quality affordable food, and accessibility to open play areas and opportunities to use active transport to the whole population.

Referrals to excess weight services are not as high as they should be, bearing in mind the levels of excess weight in Bedford Borough. This is due to a lack of confidence in health professionals to discuss excess weight, and also a lack of awareness of the services available.

### **Recommendations for consideration by organisations i.e. BCCG, General Practices, Local Authority, Public Health and other providers e.g. SEPT, Bedford hospital**

Obesity prevention and intervention services are vital, as well as creating an environment that ensures healthy choices are easy choices.

It is important to work collaboratively to:

- Continue to tackle the obesogenic environment, by creating strong links with other partners/directorates to implement projects that tackle the environment.
- Monitor the Excess Weight Partnership Strategy through the County-wide Implementation Group.
- Ensure Bedford Borough workplaces are exemplars of healthy working environments and support the Well-being Champions within Bedford Borough Council to support employees to make healthy lifestyle choices.
- Adopt a 'Whole Systems Approach' and be mutually accountable for excess weight prevention from Health and Wellbeing Board level downwards by setting examples individually and corporately, and through active promotion of existing programmes.
- Provide Making Every Contact Count (MECC) training to promote brief intervention advice for healthy living throughout the patient journey.
- Promote Health Checks to assist with early intervention of health issues for people between the ages of 40-74.
- Increase access to healthier foods by creating a Food Partnership and commissioning



universal Cooking Skills and Growing and Allotment projects.

- Deliver social marketing to enable adults to recognise excess weight in themselves and their children and the confidence and knowledge to act appropriately.
- Support the Public Health England 'One You' campaign and align all adult projects/events to the services and branding.
- Deliver social marketing interventions to influence positive health behaviour in target geographical locations.
- Support active travel and physical activity schemes.
- Continue to use Public Health Intelligence data to target resources and implement effective interventions.
- Continue to share and learn from best practice from the East of England and across the country through relevant networks and events.

There should be continued focus on areas of deprivation and in high BME wards in order to reduce the inequalities gap that presently exists, by ensuring that culturally appropriate social marketing is taking place, alongside the targeted interventions commissioned. In addition, we should look to explore other high risk groups, for example, those with learning difficulties.

### **Summary**

Excess Weight is a complex condition with wide ranging and mixed antecedents. In order to tackle adult excess weight in Bedford Borough, we should continue to commission services to prevent and manage excess weight, and at the same time, take a 'whole systems' approach which recognises that tackling excess weight is 'Everyone's Business'.

### **This section links to the following sections in the JSNA:**

Childhood Excess Weight

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