

5. HEALTHY LIFESTYLES

5.3 Healthy Weight - Adults

This section defines what is meant by healthy weight, outlines the health impact of healthy and unhealthy weight in adults and presents information on what is known about the weight of adults in Buckinghamshire.

One measure of healthy weight is body mass index (BMI) which is calculated by the following formula: $BMI = \text{Height}^2 \text{ (m)} / \text{Weight (kg)}$. An adult is defined as

- Underweight if their BMI is below 18.5.
- Healthy weight if BMI is 18.5-24.9.
- Overweight if their BMI is 25–29.9.
- Obese if their BMI is over 30.
- Severe (or morbid) obesity is defined as a BMI over 40¹.

Alongside BMI, the measurement of waist circumference provides information about the distribution of body fat and is a measure of risk for conditions such as coronary heart disease (CHD). People who carry their excess fat centrally (within the abdominal cavity) are more likely to suffer the consequences of being overweight. The level of increased risk varies with gender² (table 1) and also with ethnicity; people of South Asian origin seem more prone to carrying excess fat centrally than the White population and show raised obesity-related risk at lower BMI and lower waist circumference levels³.

Table 1 Association between waist circumference and risk of obesity-related ill health

	Increased risk	Substantially increased risk
Men	>94cm	>102cm
Women	>80cm	>88cm

Source: NHS Choices website

5.3.1 The impact of weight on health in adults

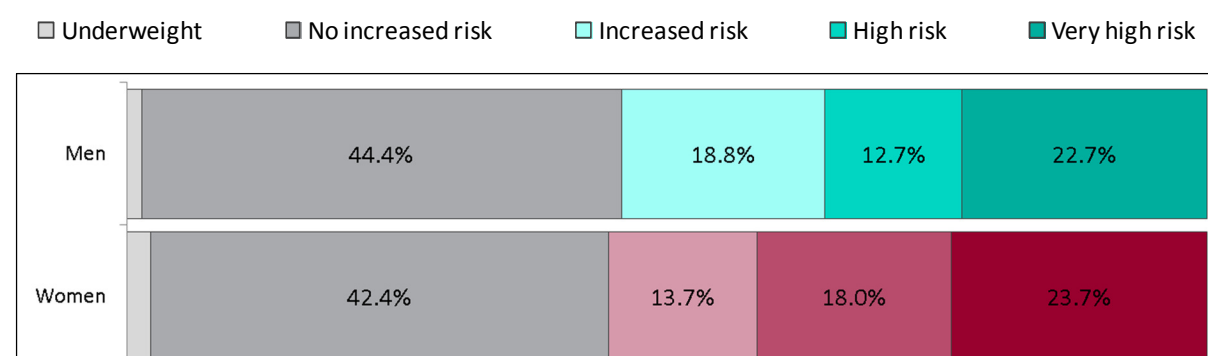
Three aspects of obesity combine to make it a public health problem: its impact on health, its prevalence, which is widespread and increasing, and its resistance to change. Almost two-thirds of the adult population in England and Wales are now overweight or obese, making a healthy weight the exception rather than the norm.

Obesity is associated with a wide range of health problems, including an increased risk of cardiovascular disease, type 2 diabetes and a number of cancers including

breast, colon, thyroid, oesophagus and pancreas. Other associated health problems include respiratory disease, chronic musculoskeletal problems, depression, obstetric complications and infertility³. Besides the impact on individuals, there are economic and social costs through the pressure which obesity and the associated ill-health put on families, the NHS and broader society. NHS costs attributable to overweight and obesity are projected to reach £9.7 billion by 2050, with wider costs to society estimated to reach £49.9 billion per year⁴. Preliminary estimates put the cost of obesity to Local Authorities providing social care at £325 million⁵. These factors combine to make the prevention and treatment of obesity a major public health challenge.

The health risk caused by overweight and obesity calculated by combining BMI and waist circumference indices shows that in England more than half of men and women were in the increased, high or very high risk categories (figure 1)^{6,7}.

Figure 1 Health risk categories based on BMI and waist circumference, adults in England



Source: PHE (From HSE data)

It is well known that it can be very challenging for obese individuals to achieve and maintain the degree of weight loss required to benefit their health. It requires changing patterns of food consumption and activity behaviour in an obesogenic environment where we are surrounded with less healthy food, large portion sizes and in some areas less able to be active in our play, travel and daily life.

5.3.2 Information on weight among adults in Buckinghamshire

There are limited data on the prevalence of overweight and obesity in Buckinghamshire. In England, the 2013 Health Survey for England (HSE) reported that an estimated 57% of women and 67% of men aged 16 and over nationally were overweight or obese (table 1), of whom 24% of women and 26% of men were obese⁶. These data are based on weighing and measuring a national sample.

Table 2 Proportions of adults in different weight categories, England 2013

	Men	Women
Underweight (BMI <18.5)	2	2
Normal weight (BMI 18.5-24.9)	31	41
Overweight (BMI 25-29.9)	41	33
Obese (BMI 30-39.9)	24	20
Morbidly obese (BMI 40+)	2	4

Source: Health Survey for England 2013

The only data set to provide Local Authority level data on the prevalence of excess weight in adults is collected through the Active People Survey which started in January 2012. These data are less robust than the HSE as they are based on self-report. They are used for the Public Health Outcomes Framework indicator on the prevalence of excess weight in adults (table 3)⁸. The prevalence of excess weight reported in Buckinghamshire in 2012-14 was 62.6%, statistically significantly lower than England. Applying this prevalence to the Buckinghamshire population, it can be estimated that there are roughly 261,000 adults who are overweight or obese.

Although evidence suggests that people usually tend to underestimate their weight, the prevalence of excess weight nationally found in the Active People Survey was lower than the average of 62% reported in the HSE.

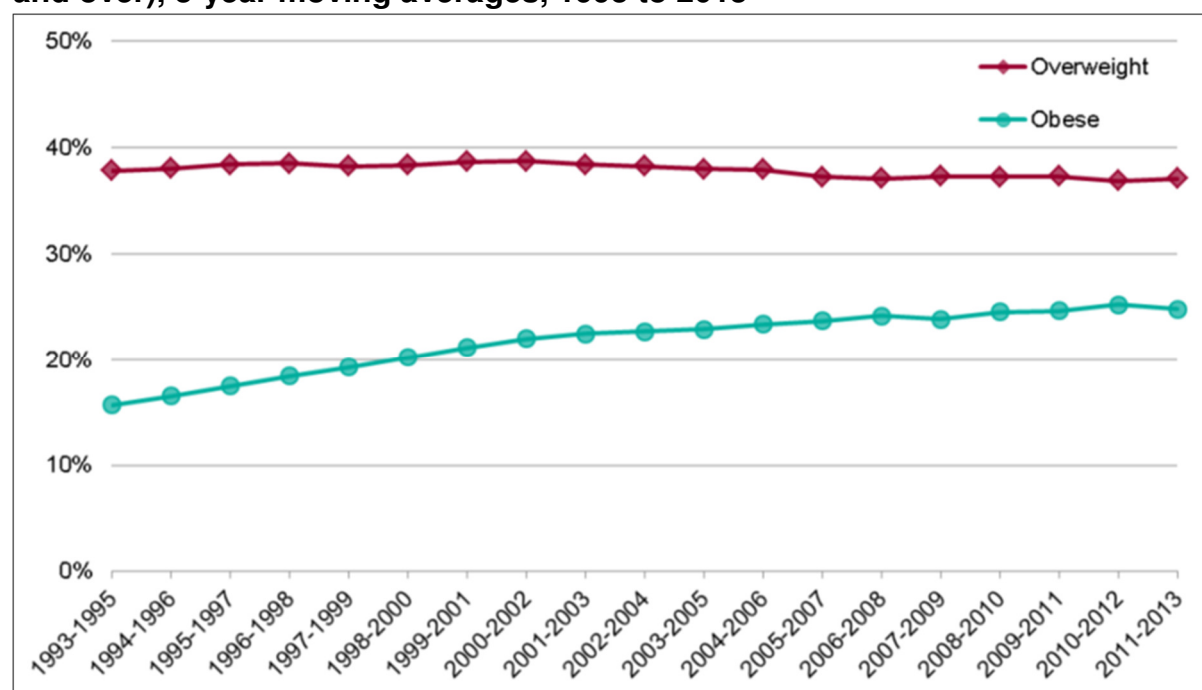
Table 3 Prevalence of excess weight in adults (%), 3 year rolling average 2012-2014, Buckinghamshire, South East and England

	Buckinghamshire	South East Region	England
Proportion of adults with excess weight	62.6	63.4	64.6

Data Source: Active People Survey (PHOF)

There are no data on trends in excess weight in Buckinghamshire. The Health Survey for England is currently the most robust data source to monitor trends in adult excess weight in England. Figure 2 shows trends in the prevalence of overweight and obesity among adults in England between 1993 and 2013⁷. The prevalence of obesity increased more steeply between 1993 and 2000 than since 2000, while the prevalence of overweight remained stable throughout the period. The prevalence of obesity among men has been consistently around 8-10 percentage points higher than among women.

Figure 2 Prevalence of overweight and obesity among adults (aged 16 years and over), 3-year moving averages, 1993 to 2013



Source: PHE (From HSE data)

5.3.3. Weight in different population groups

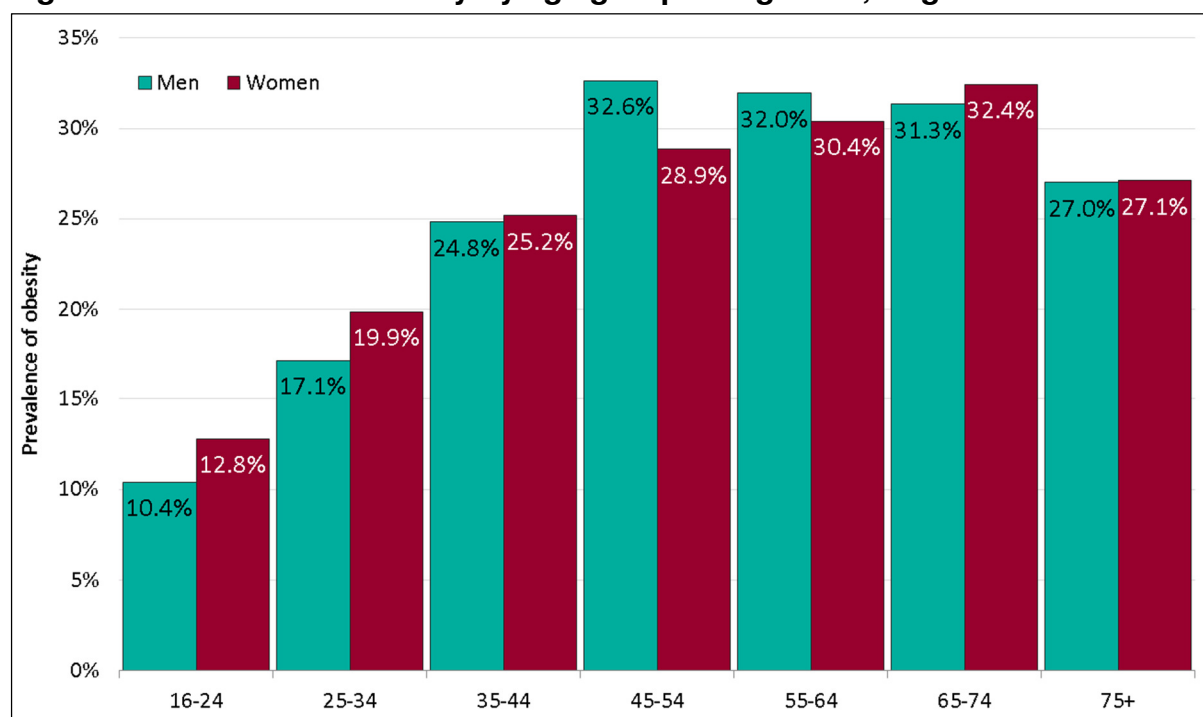
The following information is from the Health Survey for England (HSE) as there are no data on the prevalence of overweight and obesity in different population groups of adults within Buckinghamshire.

5.3.3.1 Age and Gender

There are variations in the prevalence of excess weight between men and women, and between different adult age groups. Obesity prevalence increases with age and among women is highest in 65 to 74 year olds, while among men it is highest in 45 to 54 year olds (figure 3)⁷. As shown above, excess weight is more common among men than women; the prevalence of obesity is similar in both genders, but men are more likely to be overweight. However, there are more women than men with extremely high BMI.

The prevalence of raised waist circumference increases with age for both men and women, but more women than men have a raised waist circumference, particularly in the older age groups.

Figure 3 Prevalence of obesity by age group and gender, England 2011-13

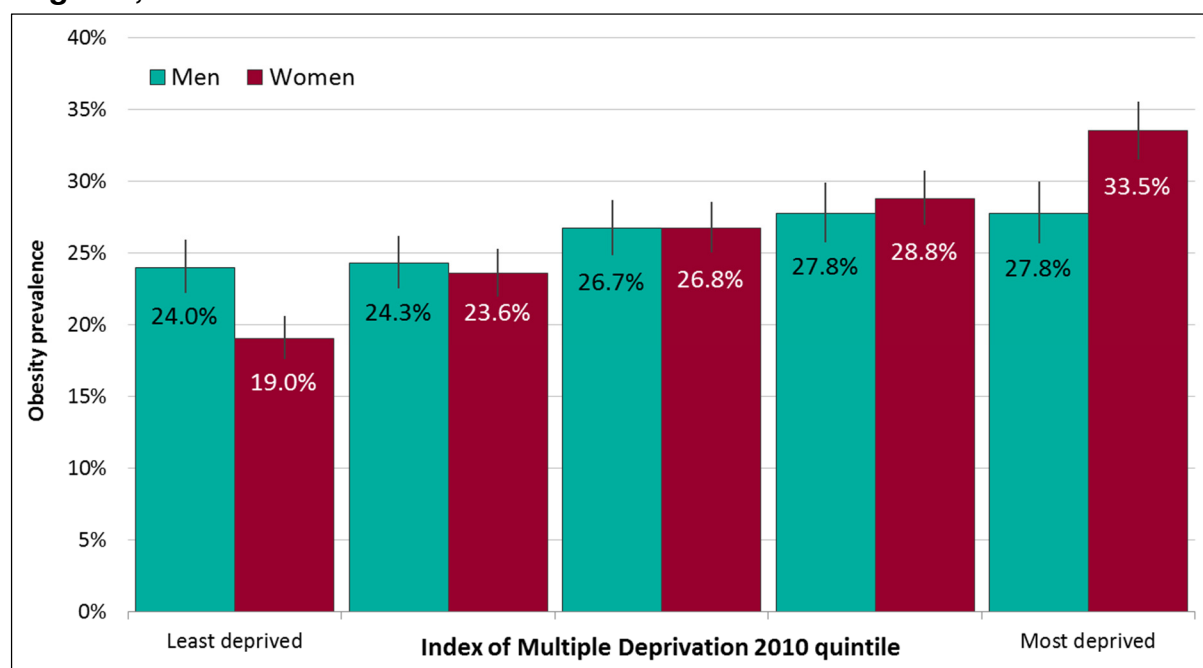


Source: PHE (From HSE data)

5.3.3.2 Deprivation

Figure 4 shows the prevalence of obesity among adults in England by deprivation quintile⁷. There is a clear decreasing trend in the prevalence of obesity among women as socioeconomic status improves. The prevalence of obesity among women in the most deprived quintile of the population is significantly higher than among the rest of the female population, and is almost twice that among women in the least deprived quintile, among whom it is significantly lower than the rest of the population. Among men the trend is much less marked, with smaller, non-significant differences between the least and most deprived quintiles. This pattern suggests that obesity is likely to be more common among women in more deprived areas of Buckinghamshire, such as Wycombe and Aylesbury town centres.

Figure 4 The proportion of adults who are obese, by deprivation quintile, England, 2011-13



Source: PHE (From HSE data)

5.3.3.3 Ethnicity

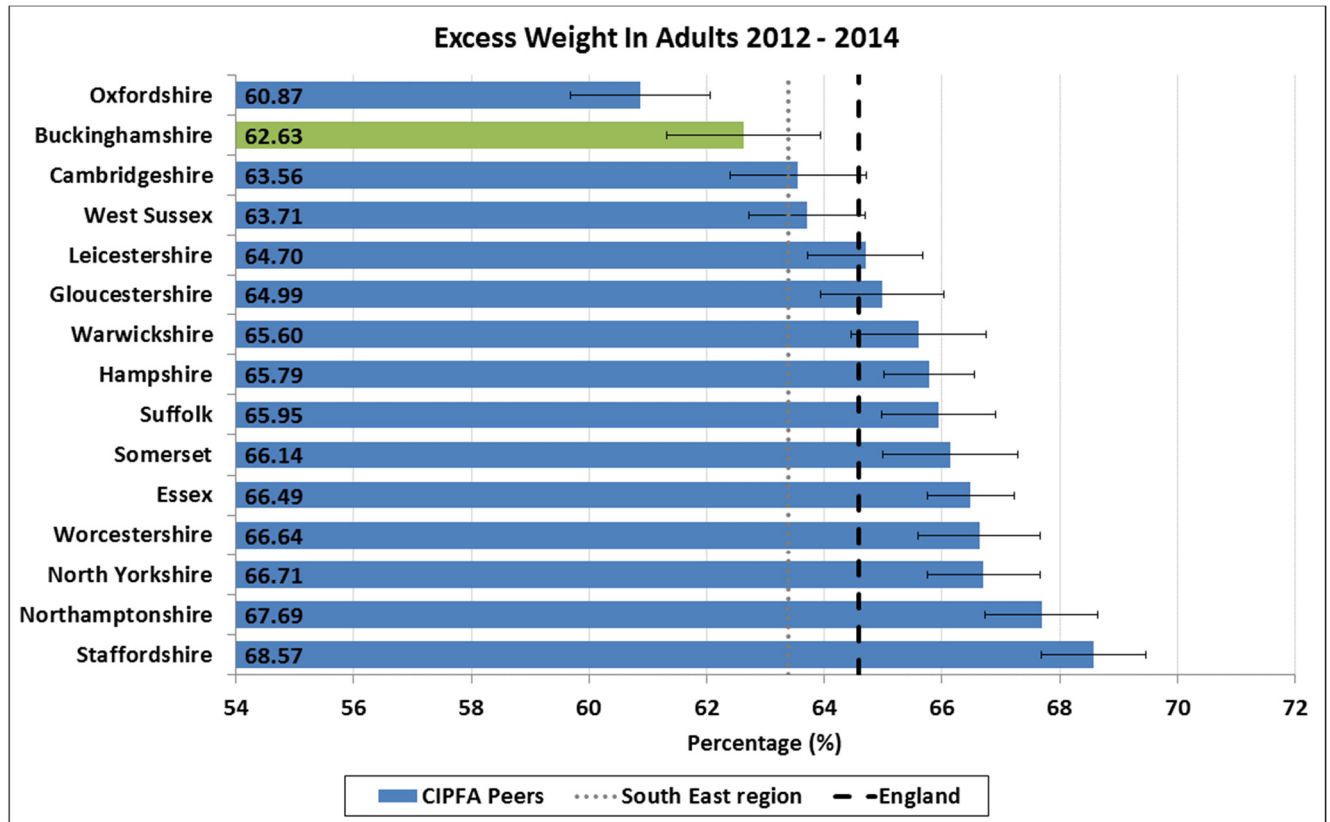
Prevalence of obesity is higher in women compared to men for Black African and Pakistani ethnic groups. Prevalence of obesity is higher among women of Black Caribbean, Black African, and Pakistani ethnicities, compared to the other ethnic groups⁹. Research has shown that current BMI thresholds may overestimate obesity among Africans and underestimate obesity in South Asians¹⁰. Given the relatively high South Asian population in Buckinghamshire this may mean that Buckinghamshire's reported adult obesity levels are an underestimate.

5.3.4 Geographical variations in the weight of adults

Figure 5 shows how the prevalence of excess weight in adults in Buckinghamshire, as measured in the Active People Survey, compares with 14 peer Local Authorities. Buckinghamshire has the second lowest proportion of adults who are overweight or obese among this group, which is significantly lower than nine of their peer Local Authorities and England.

Table 4 shows Active People Survey data by District within Buckinghamshire. Aylesbury Vale and Wycombe have levels of excess weight statistically similar to the England average, whilst Chiltern and South Bucks have significantly lower levels than England. This is likely to be related to higher levels of deprivation in Wycombe and Aylesbury Vale.

Figure 5 Proportion of adults with excess weight, Buckinghamshire and CIPFA comparator Local Authorities, 2012 - 2014



Source: PHOF data from Active People Survey 2012-14

Table 4 Proportion of adults with excess weight, District Authorities in Buckinghamshire, 2012-14

Local Authority	Excess weight (%)
Aylesbury Vale	62.3
Chiltern	59.3
South Bucks	60.9
Wycombe	65.5
Buckinghamshire	62.6
England	64.6

Source: PHOF data from Active People Survey 2012-14

5.3.5 Horizon scanning

Obesity in the adult population is driving an increase in health risk and ill-health, in particular in rates of type 2 diabetes. Looking ahead, modelling carried out for Public Health England predicts that if current trends persist, by 2034 one in three people will be obese and one in ten will develop Type 2 diabetes¹¹. Increases in the prevalence of obesity and severe obesity are predicted, particularly among men, and to a lesser extent among women¹².

These trends are unlikely to be reversed without both easily accessible treatment programmes that can be of sufficient length and intensity, and the adoption of a whole system approach to obesity whereby fiscal and regulatory measures, transport systems, and food supply, both institutional and retail, create an environment where healthy food and increased physical activity are the norm not the exception.

5.3.6 Conclusions

Although Buckinghamshire compares well with other areas in the South East and with England on the prevalence of excess weight among adults, levels are still very high with over 60% of adults (estimated to be over a quarter of a million people locally) not at a healthy weight. There appear to be significant inequalities with a disproportionate number of those living in our more deprived communities more likely to be affected by obesity. In addition, populations of South Asian origin have greater health risks associated with obesity, and this will apply to a significant number of people in Buckinghamshire. Men are also more likely than women to be overweight, particularly men in their 40s and 50s.

Local trends are likely to be similar to those nationally, which suggest that increases in the prevalence of excess weight have mainly been due to increases in obesity over the last 20 years, while levels of overweight have remained relatively stable. Future predictions suggest that unless a system-wide approach is taken to tackling this problem, increasing levels of excess weight will continue to have a serious effect on health and demands on services.

Lesley Manning
Advanced Public Health Practitioner
June 2016

References

¹NHS Choices website <http://www.nhs.uk/chq/Pages/3215.aspx?CategoryID=52> accessed 30/10/2015

-
- ² NHS Choices. Why waist size is important <http://www.nhs.uk/chq/Pages/849.aspx?CategoryID=51> accessed 25/1/2016
- ³ NICE (2014) Obesity identification, assessment and management (NICE CG 189) Published November 2014
- ⁴ HM Government (2007) Foresight. Tackling Obesities: Future Choices – Project report - 2nd Edition. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287937/07-1184x-tackling-obesities-future-choices-report.pdf (accessed 8 February 2016)
- ⁵ PHE (2014). Preliminary analysis of Health Survey for England combined data 2011 and 2012. Obesity Knowledge and Intelligence. (Unpublished)
- ⁶ HSCIC. Health Survey for England 2013. Chapter 10: adult anthropometric measures, overweight and obesity <http://www.hscic.gov.uk/catalogue/PUB16076> (accessed 9/2/2016)
- ⁷ Public Health England. Obesity Knowledge and Intelligence Team, Adult Weight Slide set http://www.noo.org.uk/NOO_pub/Key_data (accessed 26/01/2016)
- ⁸ PHE. Public Health Outcomes Framework: excess weight in adults <http://www.phoutcomes.info/> (accessed 26/01/2016)
- ⁹ PHE Patterns and trends in Adult Obesity April 2016
- ¹⁰ Harding S, Teyhan A, Maynard MJ, Cruickshank JK. Ethnic differences in overweight and obesity in early adolescence in the MRC DASH study: the role of adolescent and parental lifestyle. International Journal of Epidemiology 2008; 37(1):162–72
- ¹¹ UK Health Forum 2014. From evidence into action: opportunities to protect and improve the nation's health (Risk factor based modelling for Public Health England)
- ¹² Brown M, Byatt T, Marsh T, McPherson K (2010) A prediction of Obesity Trends for Adults and their associated diseases: Analysis from the Health Survey for England 1993 – 2007. London; National Heart Forum