

## Sunderland Adult Health & Lifestyle Survey 2017

### Topic Profile: Healthy Weight and Excess Weight

#### **About Healthy Weight, Overweight and Obesity**

Obesity is one of the most significant and complex public health challenges of our times. It can undermine individual and family health and wellbeing, impact on business and education, and contribute to significant costs across health, social care and a wide range of services. In 2016, it is estimated that there were 176 deaths in persons of all ages in Sunderland that were attributable to obesity; on average, each of these was associated with 9 years of life lost.

Overweight and obesity are terms that refer to having excess body fat, which is related to a wide range of diseases, most commonly:

- type 2 diabetes;
- hypertension (high blood pressure);
- some cancers;
- heart disease;
- stroke; and
- liver disease.

Body mass index (BMI) is one way of assessing body fat. It is calculated from an individual's weight recorded in kilograms (kg) and their height recorded in metres (m) as follows:

Body mass index (BMI) = weight / (height x height), measured in kg/m<sup>2</sup>

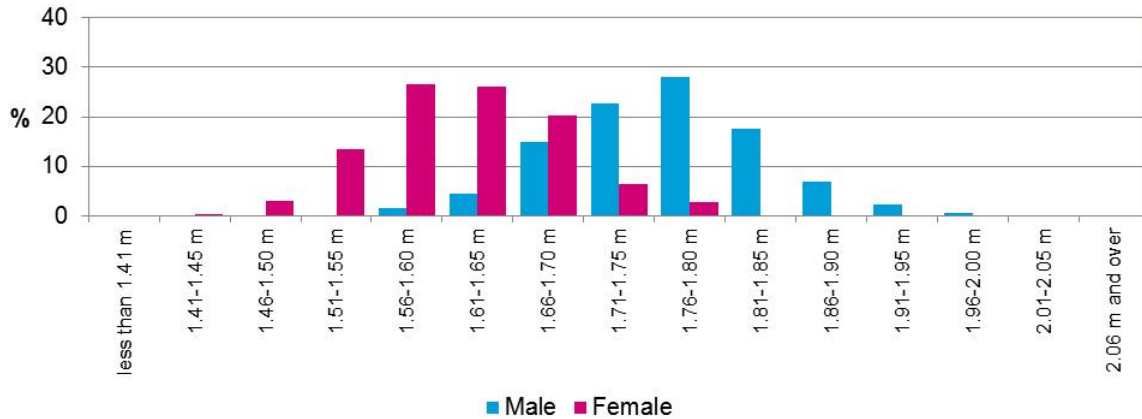
In adults, we use the following ranges to categorise BMI:

- Underweight: BMI of less than 18.5 kg/m<sup>2</sup>
- Healthy weight: BMI of 18.5 or more and less than 25.0 kg/m<sup>2</sup>
- Overweight: BMI of 25.0 or more and less than 30.0 kg/m<sup>2</sup>
- Obese: BMI of 30.0 kg/m<sup>2</sup> or more
- Excess weight: BMI of 25.0 kg/m<sup>2</sup> or more (combines overweight and obese).

In our survey we collected data on self-reported height and weight and used this to calculate BMI. It should be noted that evidence shows that when self-reporting these measures, individuals have a tendency to overestimate their height and underestimate their weight. The impact of this would be to produce lower BMI, and lower prevalence of overweight and obesity.

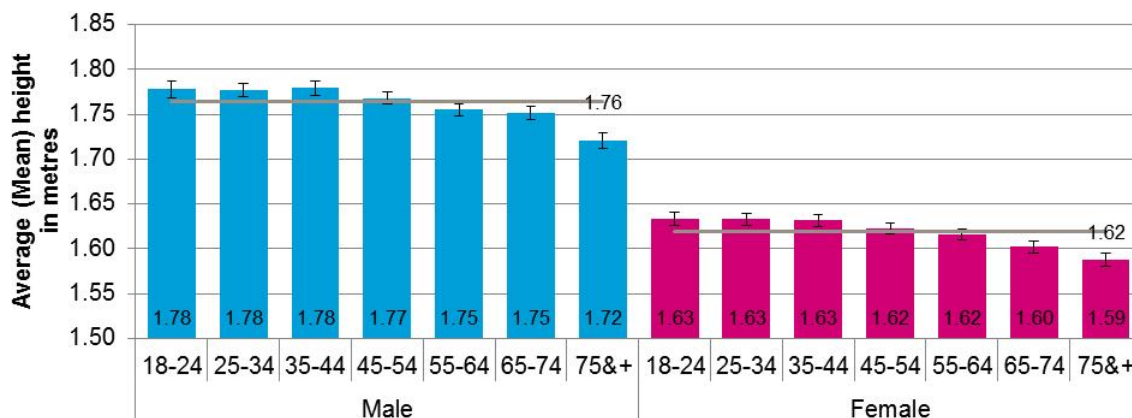
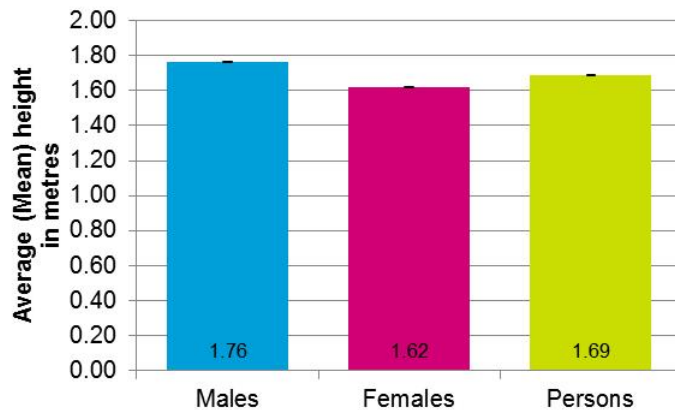
## How tall are people in Sunderland?

In our survey of 5,571 adults aged 18 and over (a 2.5% sample of the Sunderland adult population), 5,455 responses included information about the person's height. Based on this, the distribution of height for males and females was as follows:



We have also been able to estimate the average height of people in Sunderland as follows:

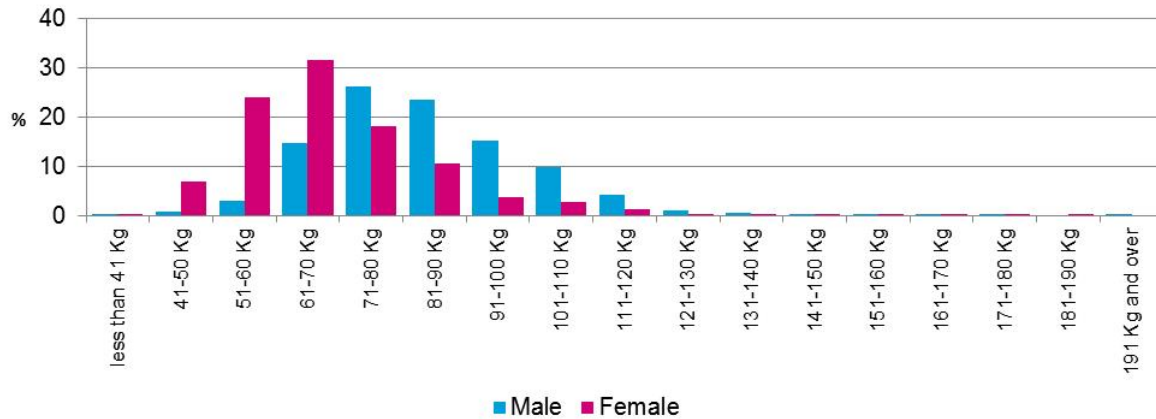
- The average height of adult males in Sunderland is 1.76 metres (or around 5 feet 9 inches).
- The average height of adult females in Sunderland is 1.62 metres (or around 5 feet 4 inches).
- Overall, the average height of Sunderland adults is 1.69 metres (or around 5 feet 6½ inches).



Considering the average heights of adult males and females by age group, shows that those in younger age groups are generally taller than those in older age groups. This suggests that average height of our population is increasing over time.

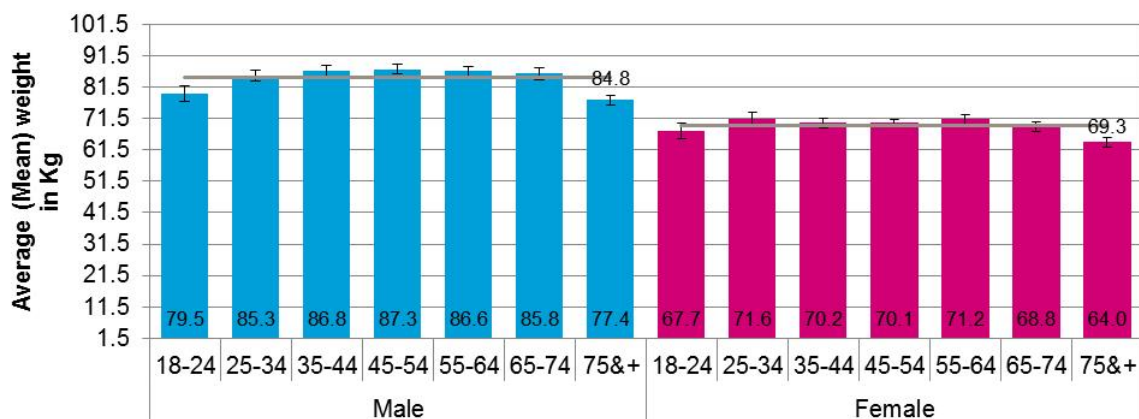
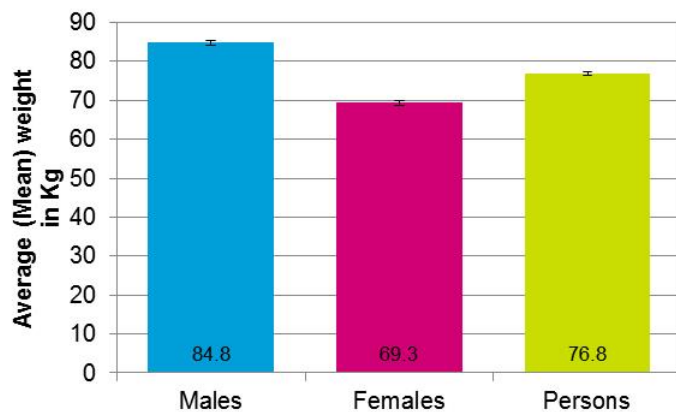
## What do people weigh in Sunderland?

In our survey of 5,571 adults aged 18 and over (a 2.5% sample of the Sunderland adult population), 4,970 responses included information about the person's weight. Based on this, the distribution of weight for males and females was as follows:



We have also been able to estimate the average weight of people in Sunderland as follows:

- The average weight of adult males in Sunderland is 84.8 kilograms (or around 13 stones 5 lb).
- The average weight of adult females in Sunderland is 69.3 kilograms (or around 10 stone 13 lb).
- Overall, the average weight of Sunderland adults is 76.8 kilograms (or around 12 stone 1 lb).

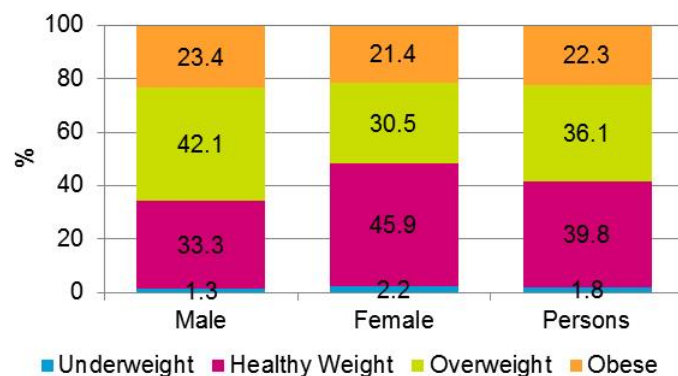


Considering the average weights of adult males and females by age group, shows that those in the youngest age group and the oldest age group generally weigh less than those in the middle age groups.

## Patterns of Body Mass Index in Sunderland

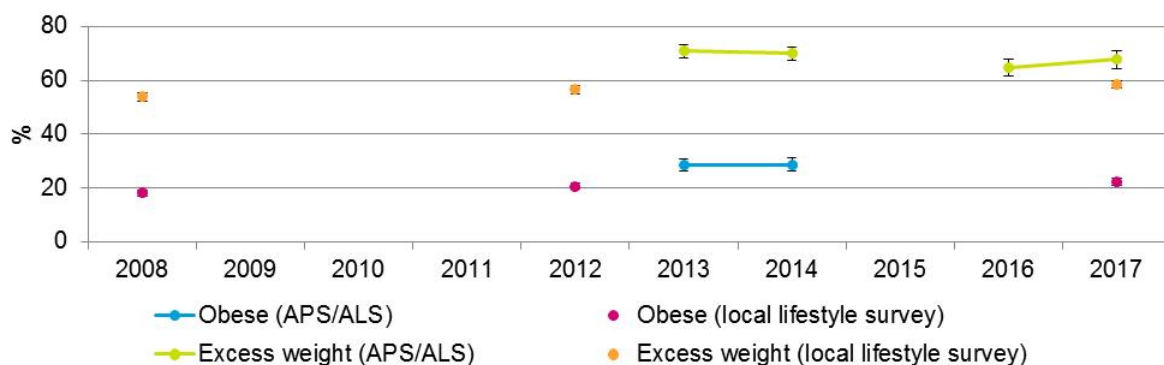
In our survey of 5,571 adults aged 18 and over (a 2.5% sample of the Sunderland adult population), 4,937 responses included information about both height and weight. Based on this, the distribution of body mass index is as follows:

- 1.8% had BMI of less than 18.5 kg/m<sup>2</sup> and were classified as underweight.
- 39.8% had BMI of 18.5 or more but less than 25.0 kg/m<sup>2</sup> and were classified as healthy weight.
- 36.1% had BMI of 25.0 or more and less than 30.0 kg/m<sup>2</sup> and were classified as overweight.
- 22.3% had BMI of 30.0 kg/m<sup>2</sup> or more and were classified as obese.
- 58.5% had BMI of 25.0 kg/m<sup>2</sup> or more and were classified as being of excess weight.
- Females are significantly more likely than males to be underweight or of healthy weight, whilst males are significantly more likely than females to be overweight or of excess weight.



Using 2016 mid-year population estimates this would mean that in Sunderland we have around:

- 3,900 adults aged 18 and over who are underweight.
- 89,100 adults aged 18 and over who are a healthy weight.
- 80,700 adults aged 18 and over who are overweight.
- 50,000 adults aged 18 and over who are obese.

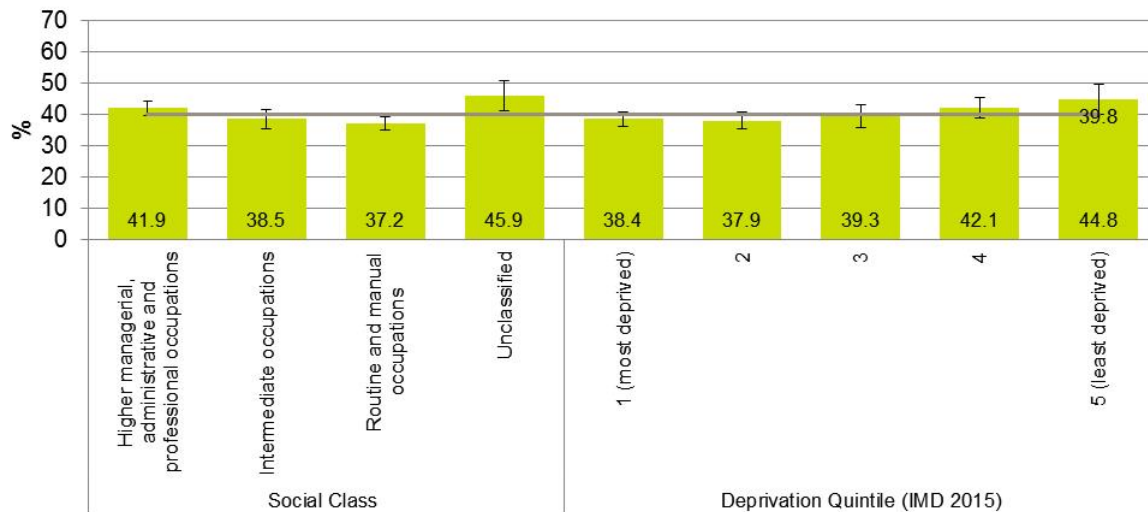


Comparing the results of our local survey with the results for Sunderland from the Active People Survey (2012-2015) and the Active Lives Survey (2016-2017) conducted by Sport England shows that our survey tends to produce lower prevalence estimates than the national surveys. Comparing results with the previous two local surveys shows that the prevalence of excess and weight and obesity have both risen over time.

## Prevalence of healthy weight in Sunderland

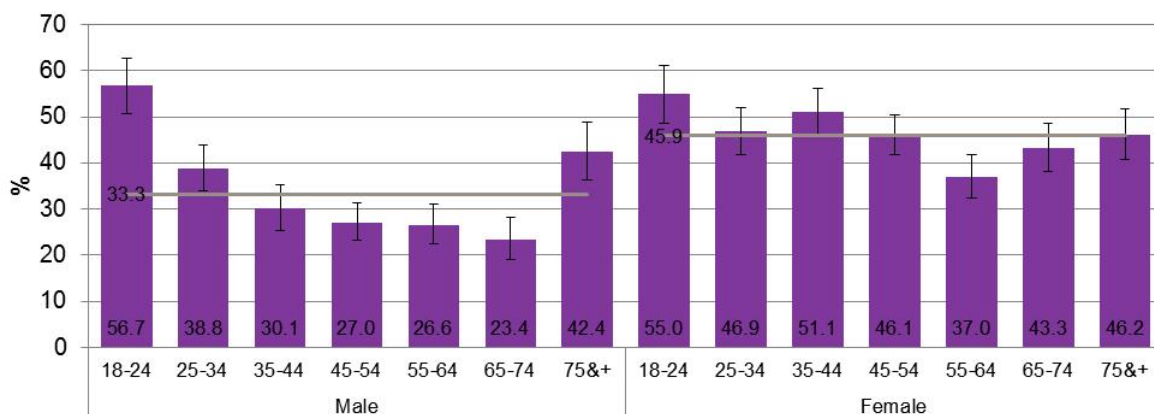
In our survey, 39.8% of adults aged 18 and over are of healthy weight; based on 2016 mid-year population estimates this would mean that in Sunderland we have around 89,100 adults aged 18 and over with a body mass index of 18.5 kg/m<sup>2</sup> or more and less than 25.0 kg/m<sup>2</sup>. Prevalence of healthy weight in adult males is 33.3% and prevalence of healthy weight in adult females is 45.9%.

### By social class and deprivation status



- There was no statistically significant variation in the prevalence of healthy weight by social class when compared to the Sunderland average (39.8%).
- There was no statistically significant variation in the prevalence of healthy weight by deprivation quintiles when compared to the Sunderland average (39.8%).

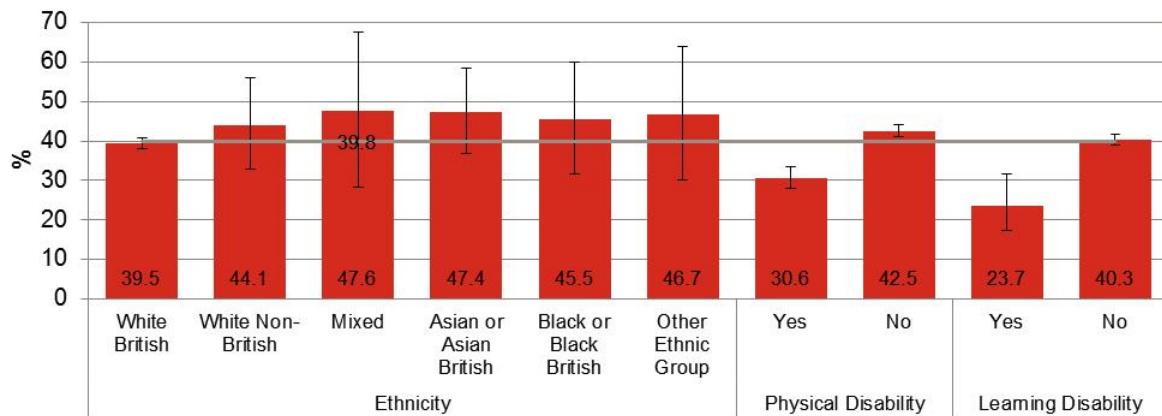
### By age and gender



- Generally the prevalence of healthy weight is higher for females than for males across most age groups.
- Males aged 18-24 (56.7%) and 75 and over (42.4%) were significantly more likely to be of healthy weight than the average for Sunderland males (33.3%), whilst males aged 65-74 (23.4%), 55-64 (26.6%) and 45-54 (27.0%) were significantly less likely to be of healthy weight than the average for Sunderland males (33.3%).

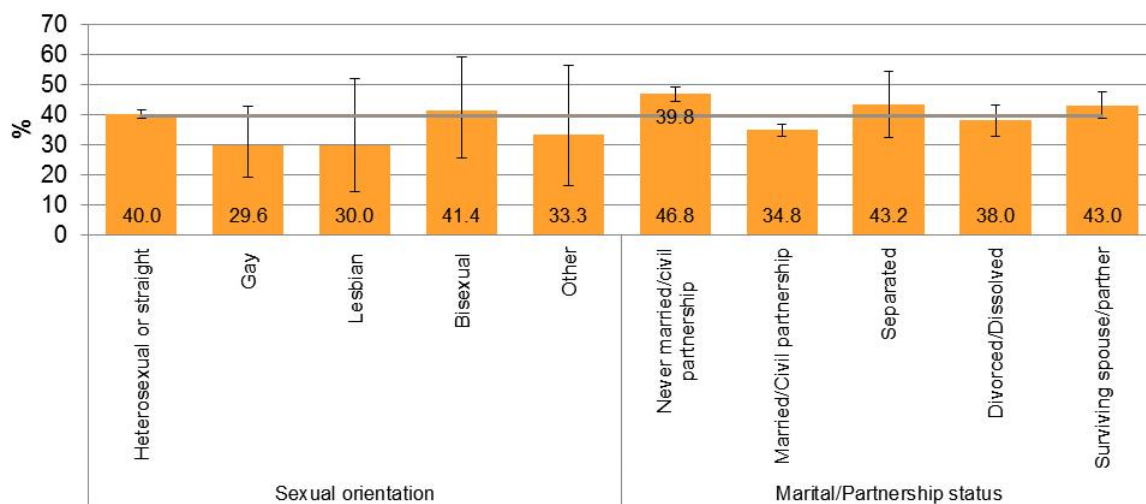
- Females aged 18-24 (55.0%) were significantly more likely to be of healthy weight than the average for Sunderland females (45.9%), whilst females aged 55-64 (37.0%) were significantly less likely to be of healthy weight than the average for Sunderland females (45.9%).

### By ethnicity or disability status



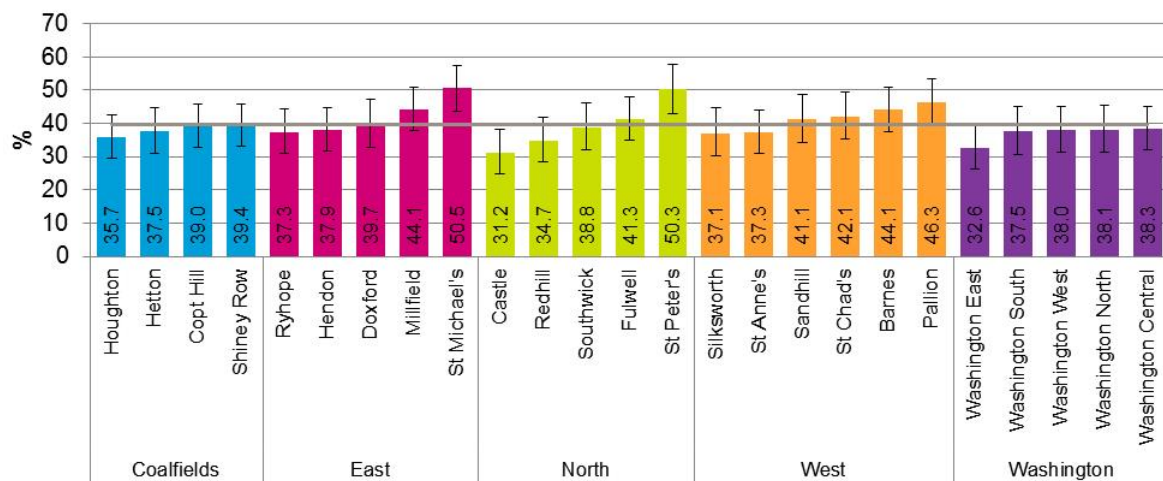
- There was no statistically significant variation in the prevalence of healthy weight by ethnic group when compared to the Sunderland average (39.8%).
- Adults with a physical disability (30.6%) were significantly less likely to be of healthy weight than those without a physical disability (42.5%).
- Adults with a learning disability (23.7%) were significantly less likely to be of healthy weight than those without a learning disability (40.3%).

### By sexual orientation or partnership status

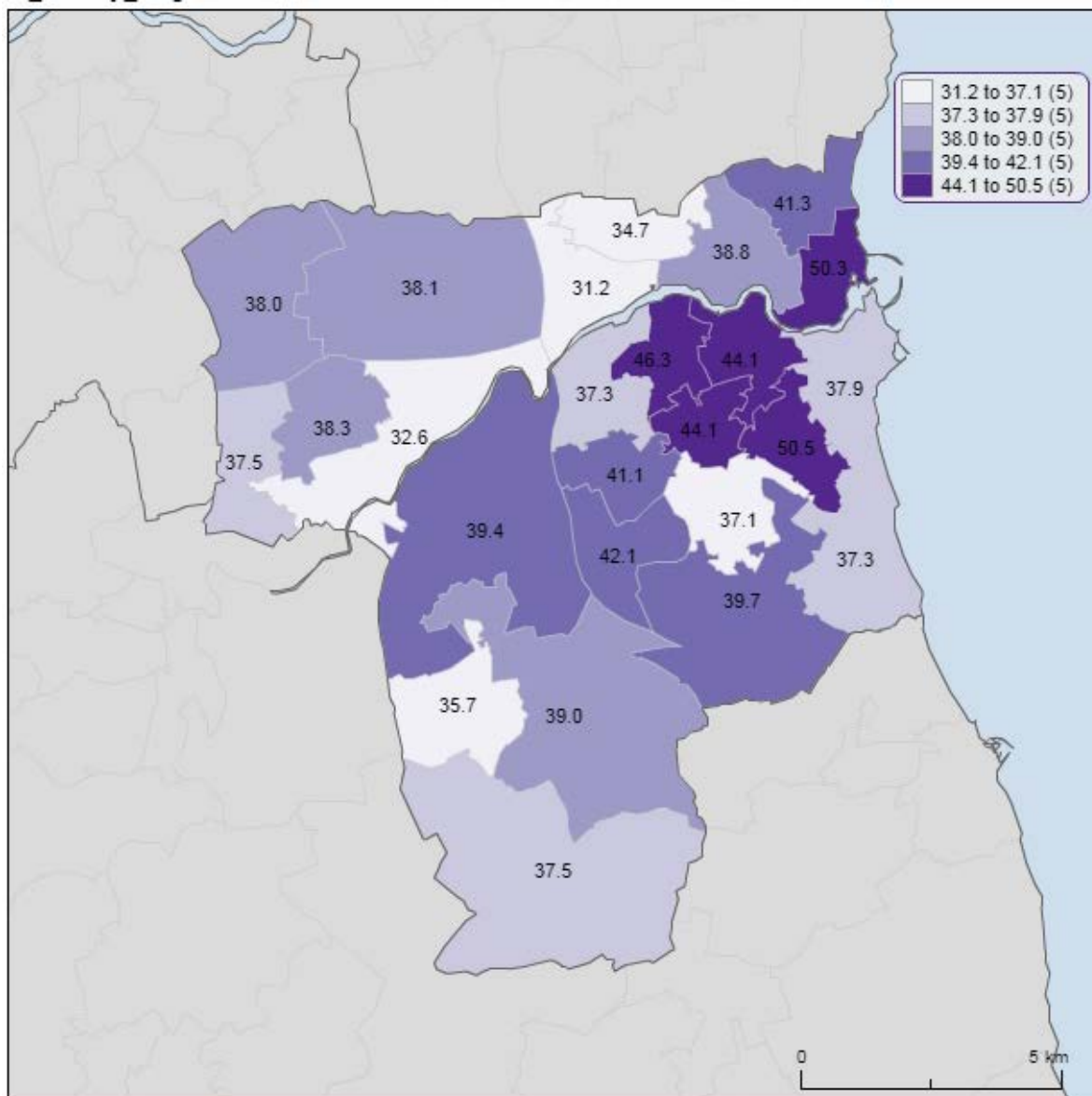


- There was no statistically significant variation in the prevalence of healthy weight by sexual orientation when compared to the Sunderland average (39.8%).
- Adults who have never been married or in a registered civil partnership (46.8%) were significantly more likely to be of healthy weight than the Sunderland average (39.8%), whilst adults who are married or in a registered civil partnership (34.8%) were significantly less likely to be of healthy weight than the Sunderland average (39.8%).

**By ward**



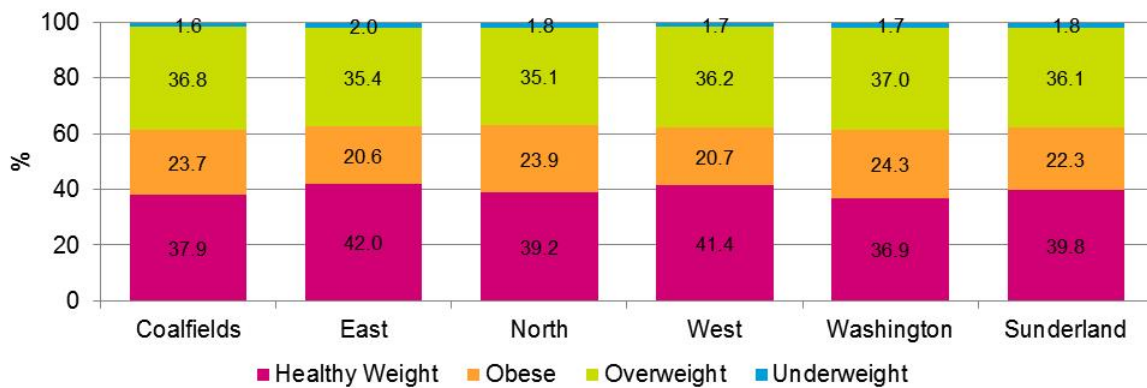
**Map showing prevalence (%) of healthy weight for Sunderland wards**



©PHE - © Crown copyright and database rights 2017, Ordnance Survey 100016969 - ONS © Crown Copyright 2017  
 - This map was generated with some user imported data

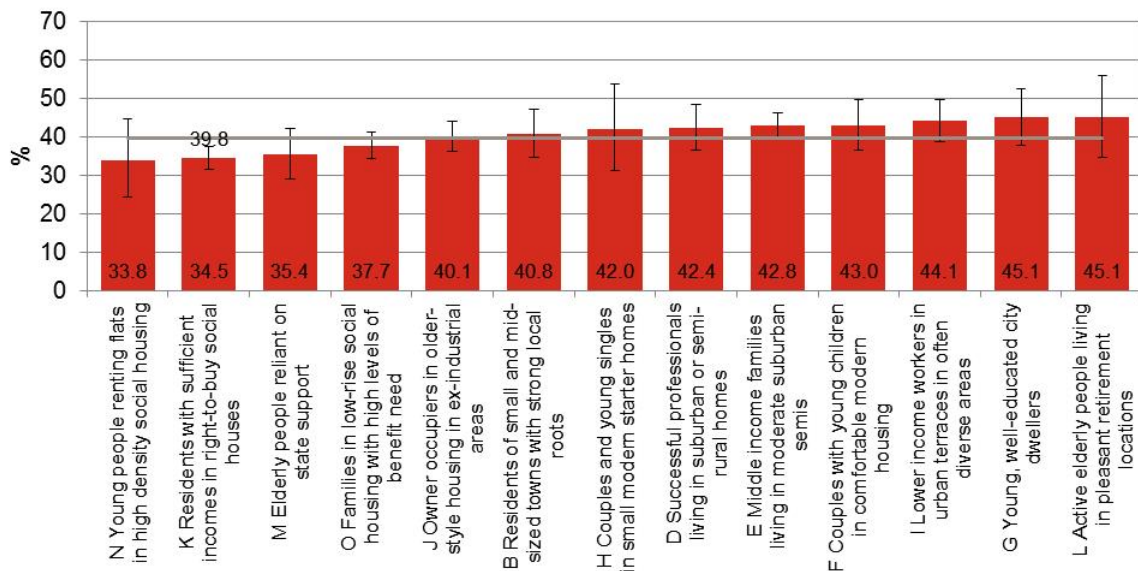
- Whilst there is variation by ward, only Castle (31.2%) reports significantly lower prevalence of healthy weight than the Sunderland average (39.8%).
- Whilst there is variation by ward, only St Michael's (50.5%) and St Peter's (50.3) report significantly higher prevalence of healthy weight than the Sunderland average (39.8%).
- Wards with the highest prevalence of healthy weight were: St Michael's (50.5%), St Peter's (50.3%), Pallion (46.3%), Millfield (44.1%) and Barnes (44.1%).
- Wards with the lowest prevalence of healthy weight were: Castle (31.2%), Washington East (32.6%), Redhill (34.7%), Houghton (35.7%) and Silksworth (37.1%).

### By area



- When summarised at area level, there is no statistically significant variation in the prevalence of healthy weight compared to the Sunderland average (39.8%).

### By Mosaic® group



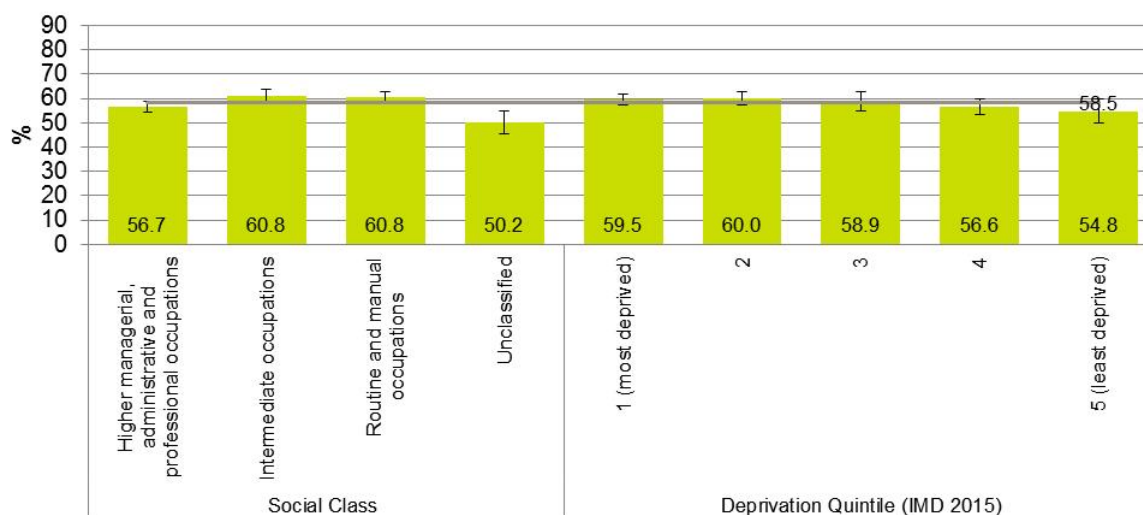
- When considering population groups with similar social and demographic characteristics (Mosaic® groups), no groups reported significantly higher prevalence of healthy weight than the Sunderland average (39.8%).
- When considering population groups with similar social and demographic characteristics (Mosaic® groups), group K (34.5%) reported significantly lower prevalence of healthy weight than the Sunderland average (39.8%).



## Prevalence of excess weight in Sunderland

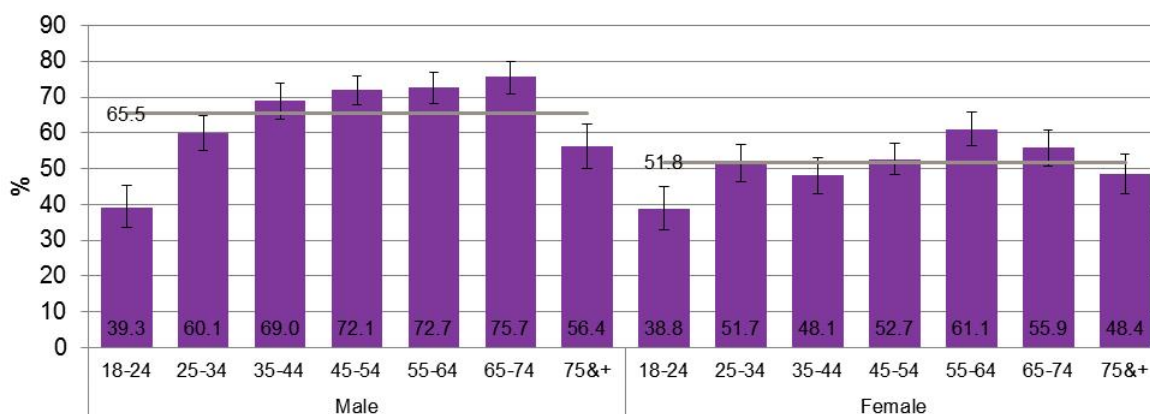
In our survey, 58.5% of adults aged 18 and over are of excess weight; based on 2016 mid-year population estimates this would mean that in Sunderland we have around 130,700 adults aged 18 with a body mass index of 25.0 kg/m<sup>2</sup> or more. Prevalence of excess weight in adult males is 65.5% and prevalence of excess weight in adult females is 51.8%.

### By social class and deprivation status



- Adults who have never worked or are long term unemployed (50.2%) were significantly less likely to be of excess weight than the Sunderland average (58.5%).
- There was no statistically significant variation in the prevalence of excess weight by deprivation quintiles when compared to the Sunderland average.

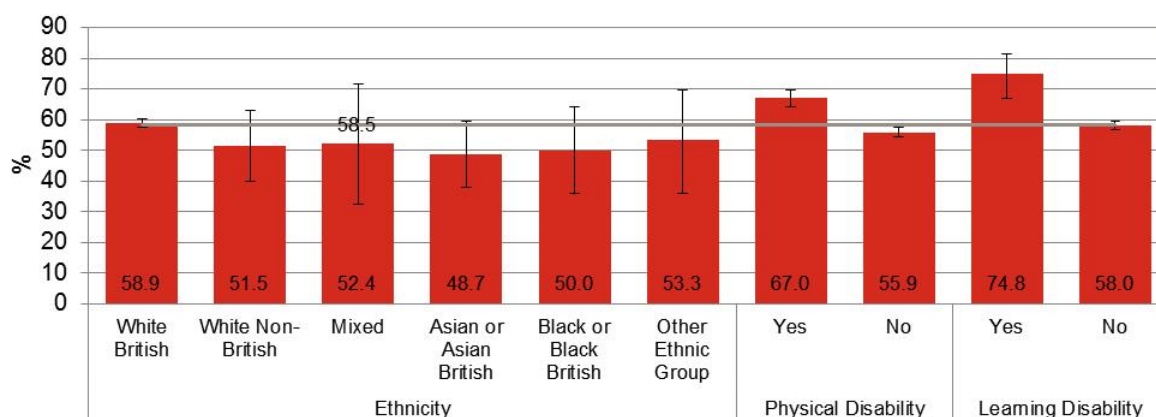
### By age and gender



- Generally the prevalence of excess weight is higher for males than for females across most age groups.
- Males aged 18-24 (39.3%) and 75 and over (56.4%) were significantly less likely to be of excess weight than the average for Sunderland males (65.5%), whilst males aged 65-74 (75.7%), 55-64 (72.7%) and 45-54 (72.1%) were significantly more likely to be of excess weight than the average for Sunderland males (65.5%).

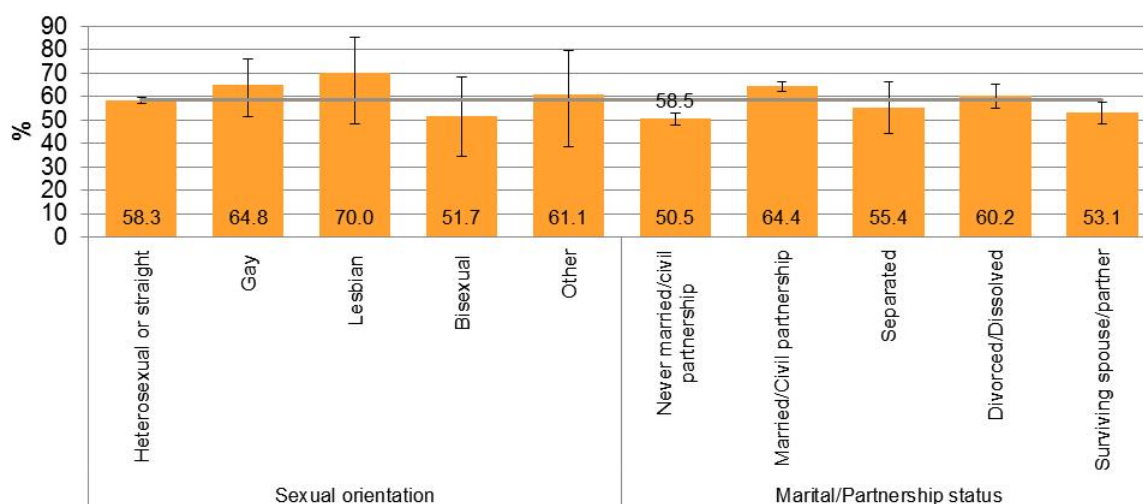
- Females aged 18-24 (38.8%) were significantly less likely to be of excess weight than the average for Sunderland females (51.8%), whilst females aged 55-64 (61.1%) were significantly more likely to be of excess weight than the average for Sunderland females (51.8%).

### By ethnicity or disability status



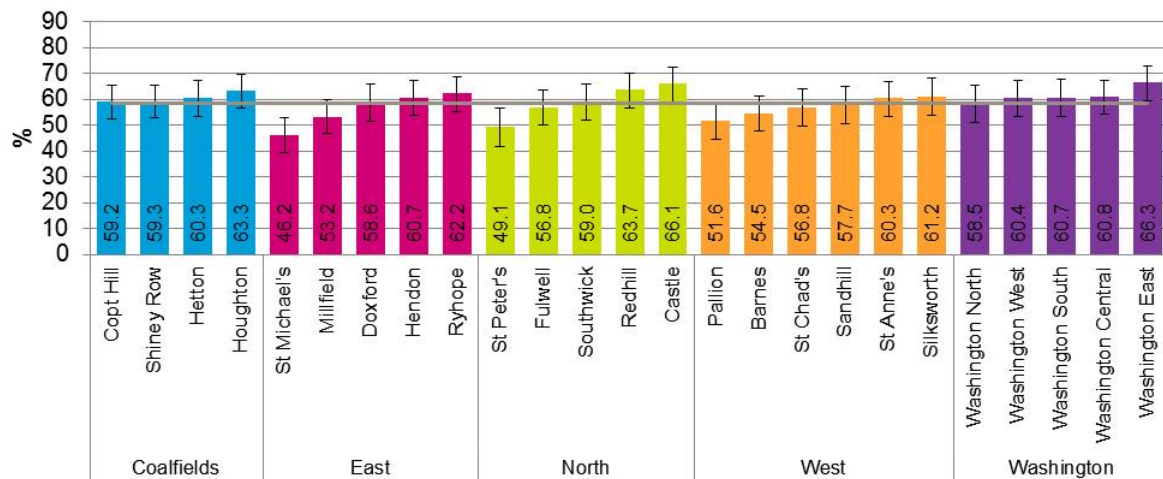
- There was no statistically significant variation in the prevalence of excess weight by ethnic group when compared to the Sunderland average (58.5%).
- Adults with a physical disability (67.0%) were significantly more likely to be of excess weight than those without a physical disability (55.9%).
- Adults with a learning disability (74.8%) were significantly more likely to be of excess weight than those without a learning disability (58.0%).

### By sexual orientation or partnership status

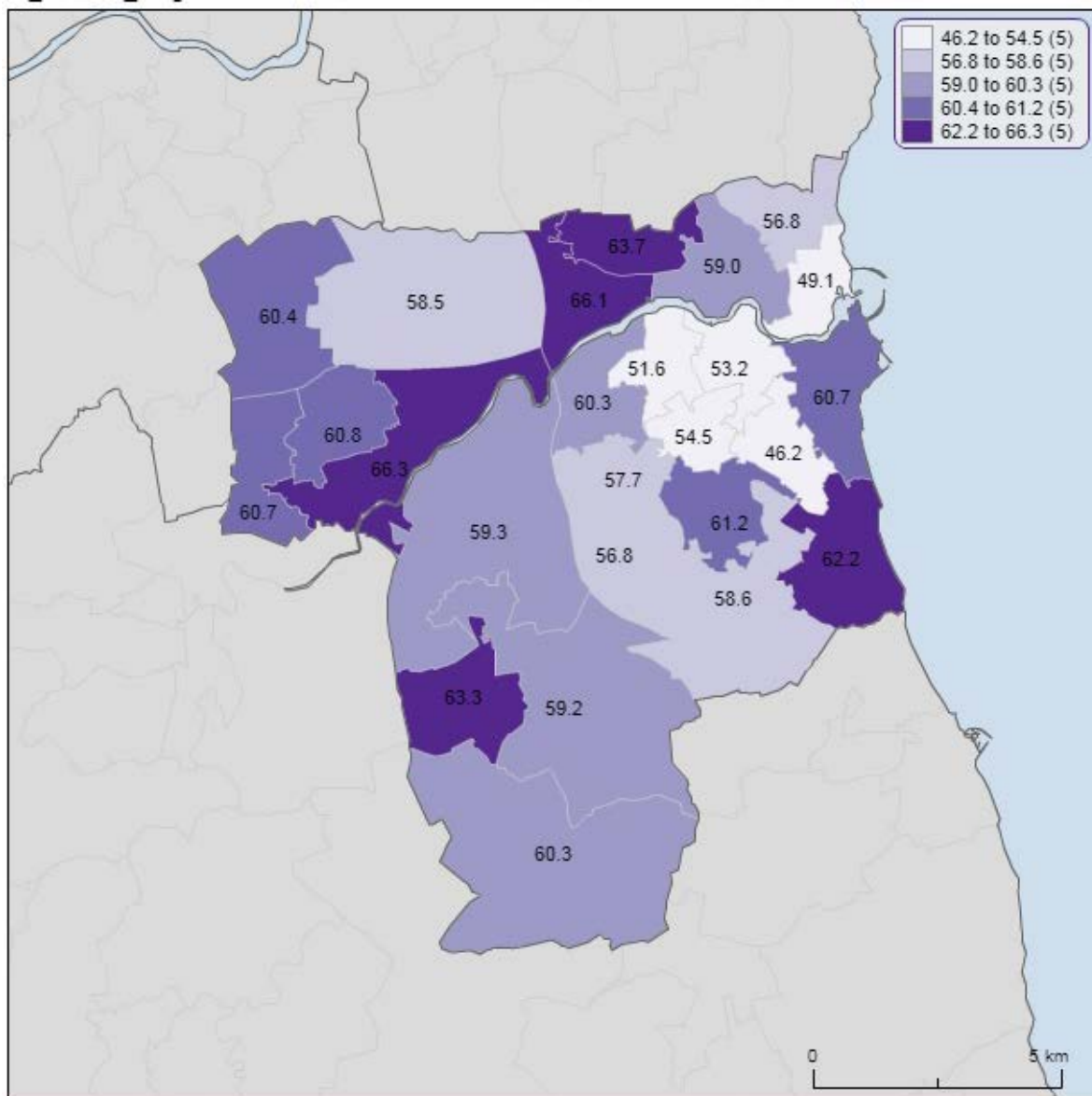


- There was no statistically significant variation in the prevalence of excess weight by sexual orientation when compared to the Sunderland average (58.5%).
- Adults who have never been married or in a registered civil partnership (50.5%) were significantly less likely to be of excess weight than the Sunderland average (58.5%), whilst adults who are married or in a registered civil partnership (64.4%) were significantly more likely to be of excess weight than the Sunderland average (58.5%).

**By ward**



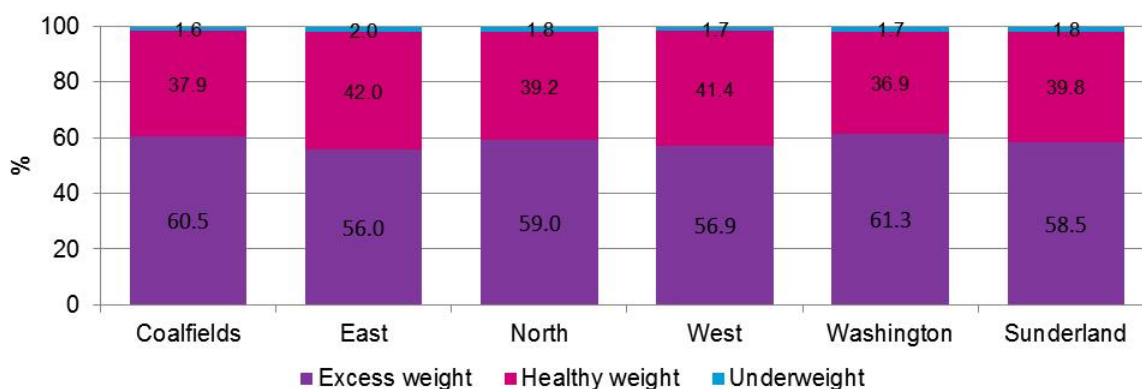
**Map showing prevalence (%) of excess weight for Sunderland wards**



©PHE - © Crown copyright and database rights 2017, Ordnance Survey 100016969 - ONS © Crown Copyright 2017  
 - This map was generated with some user imported data

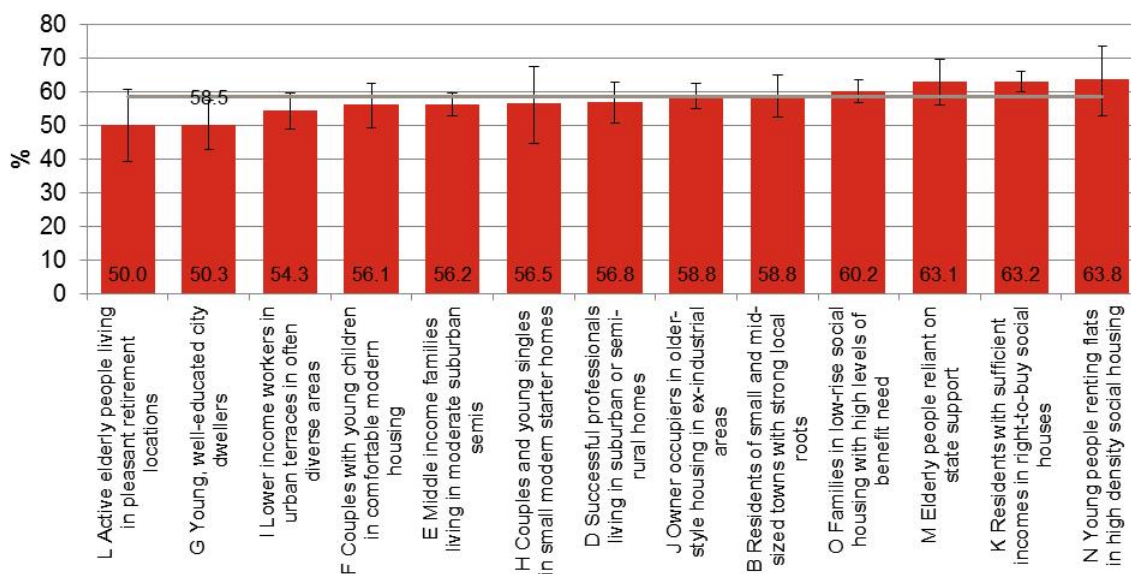
- Whilst there is variation by ward, only St Michael's (46.2%) and St Peter's (49.1%) report significantly lower prevalence of excess weight than the Sunderland average (58.5%).
- No wards have significantly higher prevalence of excess weight than the Sunderland average.
- Wards with the highest prevalence of excess weight were: Washington East (66.3%), Castle (66.1%), Redhill (63.7%), Houghton (63.3%) and Ryhope (62.2%).
- Wards with the lowest prevalence of excess weight were: St Michael's (46.2%), St Peter's (49.1%), Pallion (51.6%), Millfield (53.2%) and Barnes (54.5%).

### By area



- When summarised at area level, there is no statistically significant variation in the prevalence of excess weight compared to the Sunderland average (58.5%).

### By Mosaic® group

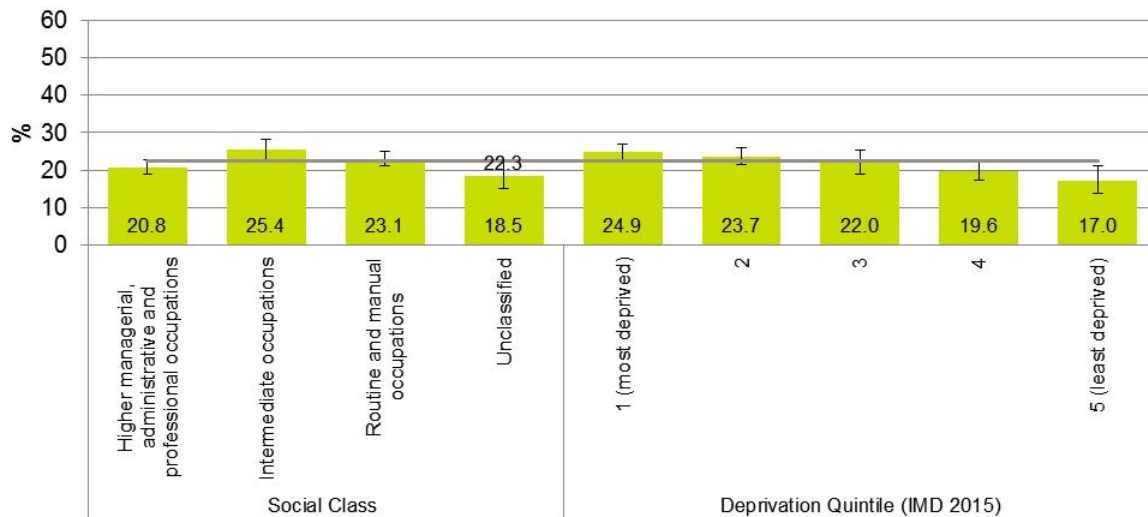


- When considering population groups with similar social and demographic characteristics (Mosaic® groups), group K (63.2%) reported significantly higher prevalence of excess weight than the Sunderland average (58.5%).
- When considering population groups with similar social and demographic characteristics (Mosaic® groups), no groups reported significantly lower prevalence of excess weight than the Sunderland average (58.5%).

## Prevalence of obesity in Sunderland

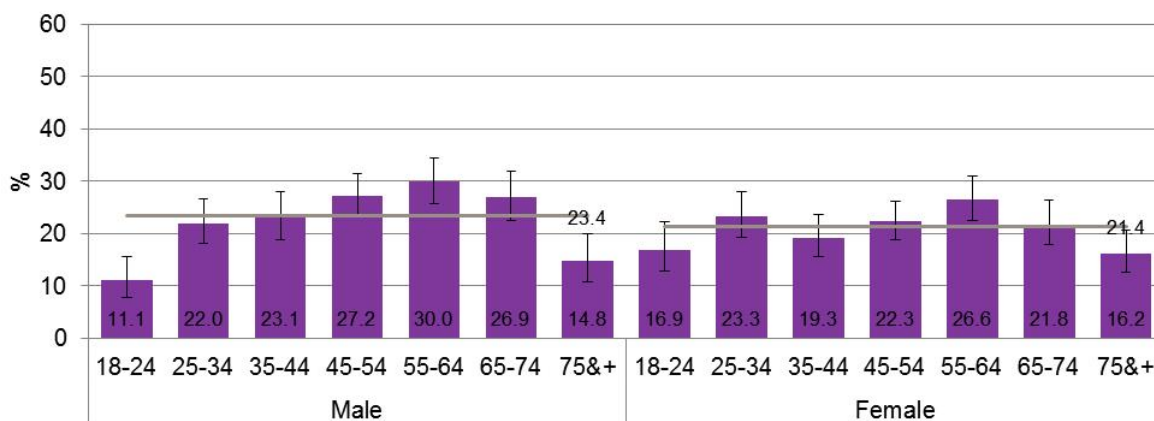
In our survey, 22.3% of adults aged 18 and over are obese; based on 2016 mid-year population estimates this would mean that in Sunderland around 50,000 adults aged 18 have a body mass index of 30.0 kg/m<sup>2</sup> or more. Prevalence of obesity in adult males is 23.4% and prevalence of obesity in adult females is 21.4%.

### By social class and deprivation status



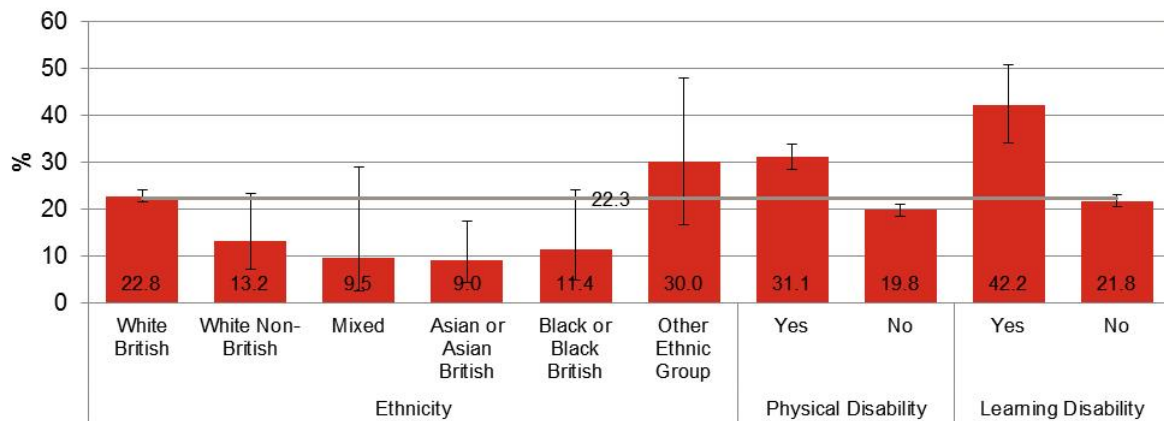
- There was no statistically significant variation in the prevalence of obesity by social class when compared to the Sunderland average (22.3%).
- There was no statistically significant variation in the prevalence of obesity by deprivation quintiles when compared to the Sunderland average (22.3%).

### By age and gender



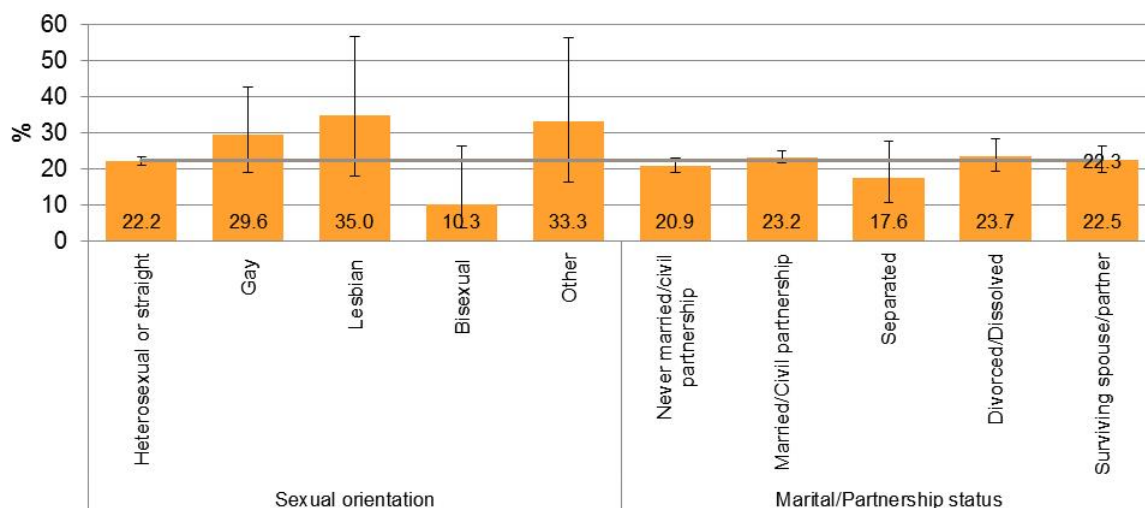
- Males aged 18-24 (11.1%) and 75 and over (14.8%) were significantly less likely to be obese than the average for Sunderland males (23.4%), whilst males aged 55-64 (30.0%) were significantly more likely to be obese than the average for Sunderland males (23.4%).
- There was no statistically significant variation in the prevalence of obesity by age group for females when compared to the Sunderland average for females (21.4%).

### By ethnicity or disability status



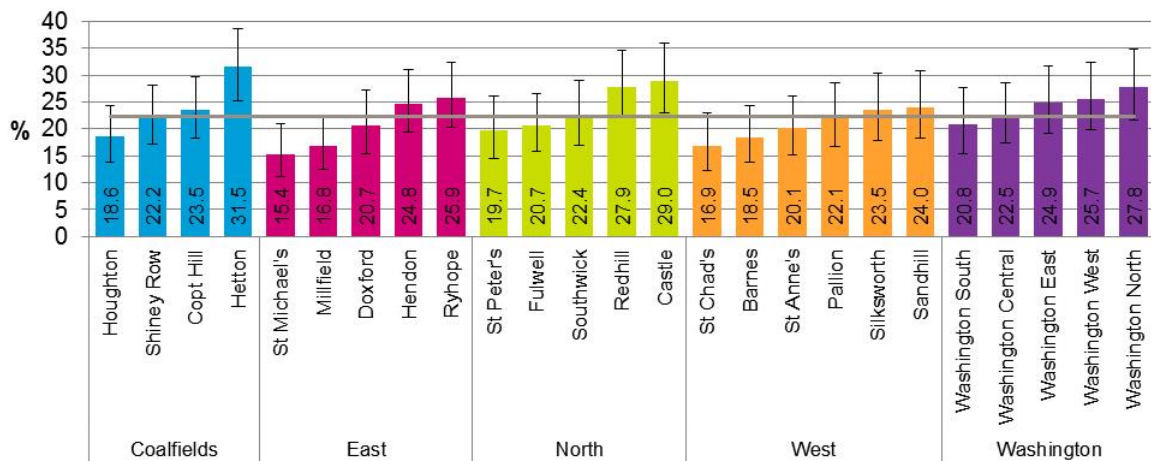
- Adults from Asian or Asian British (9.0%) were significantly less likely to be obese than the Sunderland average (22.3%).
- Adults with a physical disability (31.1%) were significantly more likely to be obese than those without a physical disability (19.8%).
- Adults with a learning disability (42.2%) were significantly more likely to be obese than those without a learning disability (21.8%).

### By sexual orientation or partnership status

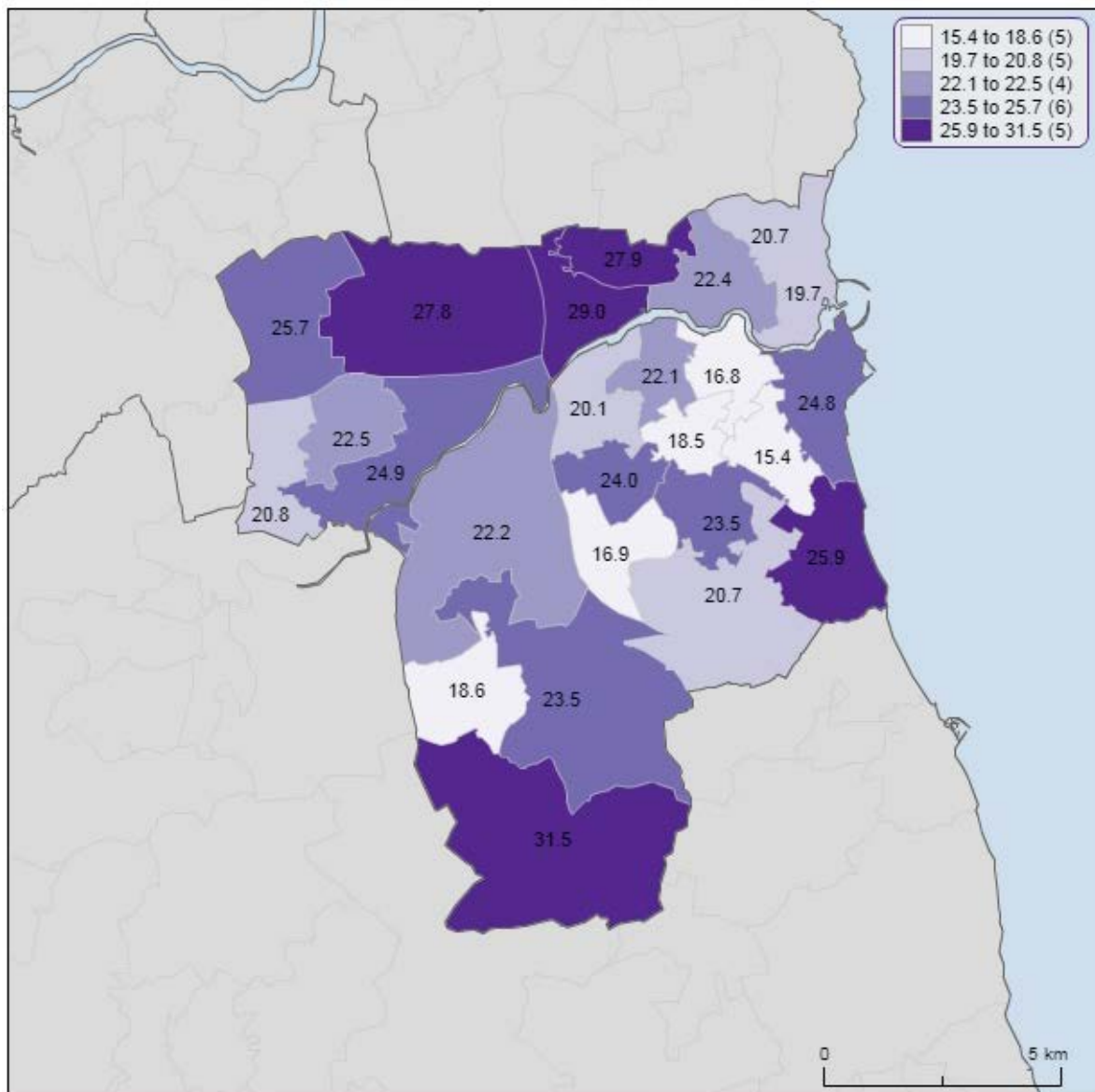


- There was no statistically significant variation in the prevalence of obesity by sexual orientation when compared to the Sunderland average (22.3%).
- There was no statistically significant variation in the prevalence of obesity by marital or partnership status when compared to the Sunderland average (22.3%).

### By ward



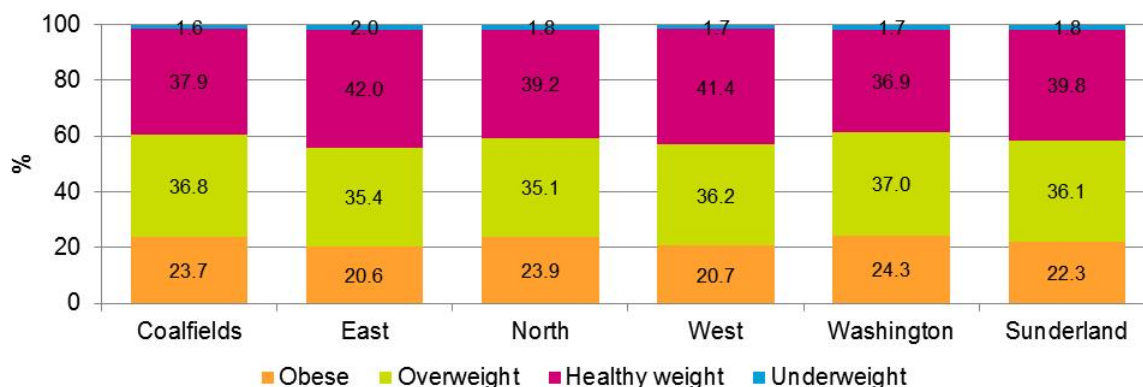
### Map showing prevalence (%) of obesity for Sunderland wards



©PHE - © Crown copyright and database rights 2017, Ordnance Survey 100016969 - ONS © Crown Copyright 2017  
 - This map was generated with some user imported data

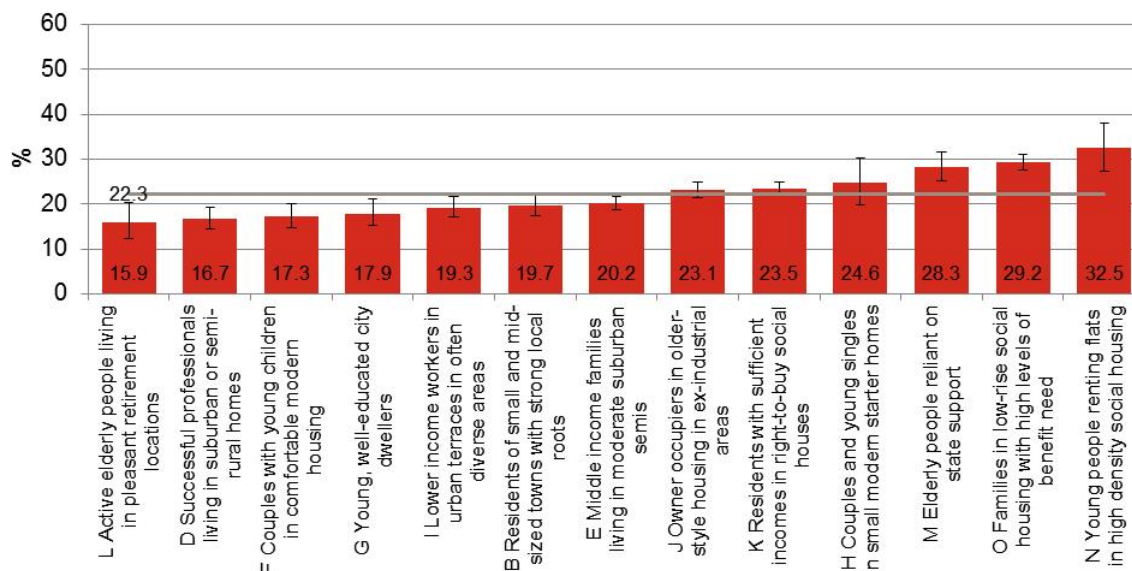
- Whilst there is variation by ward, only St Michael's (15.4%) reported significantly lower prevalence of obesity than the Sunderland average (22.3%) and only Hetton (31.5%) reported significantly higher prevalence of obesity than the Sunderland average (22.3%).
- Wards with the highest prevalence of obesity were: Hetton (31.5%), Castle (29.0%), Redhill (27.9%), Washington North (27.8%) and Ryhope (25.9%).
- Wards with the lowest prevalence of obesity were: St Michael's (15.4%), Millfield (16.8%), St Chad's (16.9%), Barnes (18.5%) and Houghton (18.6%).

### By area



- When summarised at area level, there is no statistically significant variation in the prevalence of obesity compared to the Sunderland average (22.3%).

### By Mosaic® group



- When considering population groups with similar social and demographic characteristics (Mosaic® groups), group O (29.2%) reported significantly higher prevalence of obesity than the Sunderland average (22.3%).
- When considering population groups with similar social and demographic characteristics (Mosaic® groups), no groups reported significantly lower prevalence of obesity than the Sunderland average (22.3%).