Key Points:

Prevalence:
- 7 out of 10 adults in Barnsley are overweight or obese (71.6%) (figures 1 and 2).
- Men in Barnsley have a higher prevalence of excess weight (75.8%) than women (65.2%) (figure 5).
- Barnsley’s maternal obesity rate (10.1%) is double the rate for England (5.0%) (figure 11).
- Almost a quarter (22.1%) of 4-5 year olds and just over a third (33.5%) of 10-11 year olds in Barnsley are overweight or obese; these are similar to the rates for England overall (figures 13 and 15).
- At a local level, obesity rates for adults and excess weight rates for children are generally higher in the wards to the east of the borough (figures 10, 16 and 17).

Lifestyle Factors:
- Barnsley’s rate for physically active adults (50.7%), is significantly lower than the England rate of 57.0% and the rate for physically inactive adults (34.6%) is significantly higher than the rate for England (28.7%) (figures 18 and 20).
- The proportion of residents in Barnsley utilising outdoor space for exercise/health reasons (19.1%) is higher than the England rate of 17.9% (figure 23).
- At a local level, the proportion of adults who eat healthily is generally lower in the wards to the east of the borough (figures 32 and 33).
- The proportion of 15 year olds in Barnsley who eat 5 portions or more of fruit and veg per day (44.5%), is significantly lower than the England rate of 52.4% (figure 38).
- The proportion of girls in Barnsley who eat 5 portions or more of fruit and veg per day (38.5%) is lower than the proportion of boys who do (50.3%) (figure 39).

Disease/Mortality:
- Barnsley’s prevalence rate for coronary heart disease (4.6%) is significantly higher than the rate for England (3.2%) (figure 40).
- Barnsley’s diabetes prevalence rate (7.0%) is significantly higher than the rate for England (6.4%), and is the highest since 2010/11 (figures 42 and 43).
- Barnsley’s rates for hospital admissions for non-alcoholic fatty liver disease (NAFLD) and under 75 mortality from NAFLD are higher than the rates for England, but not significantly higher (figures 44 and 45).
- Obesity contributed to 9% of deaths in Barnsley in 2012-14 (figure 46).

*Figure 1. Prevalence of excess weight in adults (aged 16+) in Barnsley (2012/14)*

Source: Public Health Outcomes Framework, May 2016
Purpose & Context:

- The purpose of this report is to present information relating to excess weight in Barnsley, and the related lifestyle factors (physical activity, sedentary behaviour, diet), which contribute to excess weight.

- The data used have been collated from various data sources including Public Health England, Quality Outcomes Framework (QOF), Department for Transport, the Health and Social Care Information Centre, and locally collated and analysed data from GP practices and Barnsley Hospital NHS Foundation Trust (BHNFT).
Excess weight in Barnsley

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- Quality Outcomes Framework (QOF)
- Locally collated GP data
- Public Health England (Local Health)
- Maternal obesity

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- National Child Measurement Programme (NCMP)

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**Adults:**
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- Utilisation of outdoor space for exercise/health reasons
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- Fruit and vegetable consumption

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- Physical activity and sedentary behaviour
- Fruit and vegetable consumption

### Obesity Related Disease and Mortality:

- Coronary heart disease
- Diabetes
- Non-Alcohol Related Fatty Liver Disease
- Mortality

### Metadata

### References/data sources

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“The prevalence of obesity among adults has increased sharply during the 1990s and early 2000s. The proportion who were categorised as obese (BMI 30kg/m2 or over) increased from 13.2% of men in 1993 to 24.3% in 2014 and from 16.4% of women in 1993 to 26.8% in 2014 (Health Survey for England). By 2050 obesity is predicted to affect 60% of adult men, 50% of adult women and 25% of children (Foresight 2007).

Obesity is associated with a range of health problems including type 2 diabetes, cardiovascular disease and cancer. The resulting 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 year (Foresight 2007). These factors combine to make the prevention of obesity a major public health challenge.” (Public Health England, 2016).

Various data sources exist to illustrate the proportion of adults who are obese or have an excess weight (those classified as overweight or obese). Barnsley’s prevalence rates, derived from the different sources, are illustrated in the following charts.

**Prevalence of excess weight (overweight and obese): Public Health Outcomes Framework**

- These data are derived from the Active People Survey; a large telephone survey, commissioned by Sport England. The survey collects self-reported height and weight from adults aged 16 and over.
- The data are adjusted at individual level to correct for the reporting bias in self-reported data, and the results are weighted to be representative of the adult population at local authority level. The weighted sample for Barnsley in the 2012/14 data is 1,874.
- No trend data are currently available.

**Figure 2. Prevalence of excess weight in adults (16+), Barnsley, statistical neighbours and England (2012/14)**

- Barnsley’s 2014/15 rate for excess weight in adults (71.6%) is **significantly higher** than the rate for England (64.6%).
- Compared to statistical neighbours, Barnsley’s rate is the fourth highest.
- Of the 71.6% of adults in Barnsley who have an excess weight, 35.1% are **obese**.

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Prevalence of obese adults: Quality Outcomes Framework (QOF)

- These data are derived from the Quality Outcomes Framework (QOF), which is an annual reward and incentive programme detailing GP practice achievement results.
- To be included in the obesity register a patient must be 16 or over and have a record of a BMI of 30 or higher in the previous 12 months. This requirement results in the prevalence of obesity in QOF being much lower than the prevalence found in the Health Survey for England and other surveys.

Figure 3. Prevalence of obese adults (16+), Barnsley, similar CCGs and England (2014/15)

- Barnsley’s 2014/15 QOF rate for obesity in adults aged 16+ (13.5%) is significantly higher than the rate for England (9.0%) and the second highest rate of the similar CCGs.

Figure 4. Prevalence of obese adults (16+), Barnsley GP practices (2014/15)

- At GP practice level, QOF obesity rates range from 8.5% (C85617) to 20.6% (Y02815).
- 20 out of the 36 GP practices have a higher rate than the rate for Barnsley overall.

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Prevalence of excess weight: Barnsley GP data

- These data are derived from GP systems, collated and analysed on a quarterly basis by the Research and Business Intelligence Team.
- Data relates to all patients aged 16 or over, registered with a Barnsley GP, who have a BMI status recorded in the last 15 months. Consequently, patients who reside outside Barnsley but are registered with a Barnsley GP will be included in the data; conversely, Barnsley residents who are registered with a non-Barnsley GP will not be included in the data.
- The proportion of patients who have a BMI record at December 2015 was only 48.1%, and there is large variation in the level of BMI recording amongst GP practices, ranging from 22.1% in practice Y04660 to 81.6% in practice C85623; this could impact on the robustness of the data.

Figure 5. Adult (16+) BMI status by sex, Barnsley GP registered population (December 2015)

Source: Research and Business Intelligence Team, BMBC from Barnsley GP data (December 2015)

BMI thresholds: Underweight: <18.5 kg/m², Healthy weight: 18.5 to <25 kg/m², Overweight: 25 to <30 kg/m², Obese: >=30.0 kg/m²

- Men in Barnsley have a lower prevalence of healthy weight (22.7%) than women (32.1%). This reflects the national picture; Health Survey for England data (2012 to 2014) shows that 32.0% of men in England have a healthy weight, compared to 40.6% of women.

- Three quarters (75.8%) of men and almost two thirds (65.2%) of women in Barnsley are an excess weight.

- Amongst women in Barnsley, the prevalence of obesity (34.7%) is greater than the prevalence of those classified as overweight (30.5%). Amongst men, the opposite is true, with prevalence of those classified as obese (36.7%) being lower than those who are overweight (39.1%).

- There is a slightly higher proportion of underweight women in Barnsley (2.6%), compared to men (1.4%).

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Prevalence of excess weight adults: Barnsley GP data (continued)

Figure 6. Prevalence of excess weight by age: Barnsley GP registered men (16+) (December 2015)

- Figures 6 and 7 Illustrate how the prevalence of excess weight amongst men and women in Barnsley changes with age.
- Prevalence of excess weight is lowest in the 16-24 age group for both men and women, although prevalence in this age group for women (44.7%) is higher than for men (39.9%).
- For men, prevalence of excess weight increases with age up to 45-54 (83.6%), whereas for women it continues to increase up to 55-64 (73.9%). Prevalence in all groups from 25-34 onwards for men is higher than for women.
- The proportion of overweight men is highest at age 75+ (44.6%) and the proportion of obese men is highest at age 55-64 (44.3%).
- For women, the proportion who are overweight is highest at age 65-74 (35.3%) and the proportion who are obese is highest at age 55-64 (41.7%).
Prevalence of excess weight adults: Barnsley GP data (continued)

Figure 8. Trend in obesity and excess weight: Barnsley GP registered population (16+) (June 2014 to December 2015)

- During the period June 2014 to December 2015, obesity rates have fluctuated in both men and women (figure 8).
- **Obesity** rates for **men** have been **consistently higher** than for women at each time point, and the gap between men and women has widened over time.

- Excess weight rates have remained relatively stable over the time period (figure 8).
- The rates for **men** have been **consistently higher** than the rates for women, and the gap between men and women has widened slightly over time.
Prevalence of obese adults (16+) at local level: Public Health England (Local Health)

- This section illustrates prevalence of obese adults, aged 16+, by Barnsley electoral wards. The modelled estimates are published by Public Health England, derived from individual-level data from the Health Survey for England (2006-2008).
- Due to smaller cohorts at the lower level of geography, confidence intervals are large. This could potentially lead to less reliable results.

**Figure 9. Prevalence of obese adults (16+), Barnsley electoral wards, Barnsley and England (2006/08)**

At electoral ward level, obesity rates range from 24.5% in Penistone West to 30.6% in Wombwell.

- All of the 21 wards have a higher rate than the rate for England, although none are significantly higher.
- Rates are generally higher in the wards in the east of the borough.
- Barnsley’s overall rate of 28.4% is **significantly higher** than the England rate of 24.2%.

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Maternal obesity

- This section illustrates the prevalence of maternal obesity. “Complication rates for women with obesity are substantially higher than in those without obesity... There are higher rates of miscarriage, fetal abnormality, blood pressure problems, diabetes, thrombosis, difficulty in delivery leading to higher caesarean rates, and infection following delivery”. (Centre for Maternal and Child Enquiries, 2010).
- The threshold for maternal obesity is a BMI >= 35.
- Barnsley data relates to all births at Barnsley Hospital (NHS) Foundation Trust (BHNFT). Consequently, births to mothers who reside outside of Barnsley but give birth at BHNFT will be included in the data; conversely, births to Barnsley residents who give birth outside of Barnsley will not be included in the data.

Figure 11. Prevalence of maternal obesity, Barnsley (2014/15), Yorkshire and the Humber and England (2009)

- Barnsley’s 2014/15 rate for maternal obesity (10.1%) is double the rate for England (5.0%), and higher than the rate for Yorkshire and the Humber (5.6%).
- No data are available for statistical neighbours.
- Barnsley’s 2014/15 rate of 10.1% represents 262 women.

Trend in maternal obesity, Barnsley (2012/13 to 2014/15)

- Barnsley’s maternal obesity rates have fluctuated during the period 2012/13 to 2014/15.
- The 2014/15 rate of 10.1% is the highest during the period.
Maternal obesity (continued)

Figure 12. Prevalence of maternal obesity in Barnsley, by Area Council (2014/15)

The white points in the chart above show the maternal obesity prevalence rates and the 95% confidence intervals are represented by the top and bottom of the shaded area around these points.

- There is variation in maternal obesity within Barnsley. At area council level, rates range from 8.1% of pregnant women in North Barnsley being obese to 13.9% in South Barnsley.

- All of the area councils, apart from North Barnsley and Penistone have a higher rate than the rate for Barnsley overall, although none are significantly higher.
“There is concern about the rise of childhood obesity and the implications of such obesity persisting into adulthood. The risk of obesity in adulthood and risk of future obesity-related ill health are greater as children get older. Studies tracking child obesity into adulthood have found that the probability of overweight and obese children becoming overweight or obese adults increases with age. The health consequences of childhood obesity include: increased blood lipids, glucose intolerance, Type 2 diabetes, hypertension, increases in liver enzymes associated with fatty liver, exacerbation of conditions such as asthma and psychological problems such as social isolation, low self-esteem, teasing and bullying”. (Public Health Outcomes Framework, May 2016).

The National Child Measurement Programme (NCMP) measures the height and weight of children in reception class (aged 4 to 5 years) and year 6 (aged 10 to 11 years) to assess overweight and obesity levels in children within primary schools. The data gathered from the programme enable monitoring of the national ambition to achieve "a sustained downward trend in the level of excess weight in children by 2020" as set out in Healthy lives, healthy people: A call to action on obesity in England.

Note: Although 2014/15 NCMP data are available, they are not presented in this report as there are concerns about the robustness of the Barnsley data, due to a decline in participation rates.

Figure 13. Excess weight in 4-5 year olds, Barnsley, statistical neighbours and England (2013/14)

- Barnsley’s 2013/14 rate for excess weight in 4-5 year olds (22.1%) is slightly lower than the rate for England (22.5%), but not significantly lower.

- Compared to statistical neighbours, Barnsley’s rate is the third lowest.

Figure 14. Trend in excess weight in 4-5 year olds, Barnsley and England (2006/07 to 2013/14)

- Barnsley’s rates for excess weight in 4-5 year olds have fluctuated during the period 2006/07 to 2013/14. They have been lower than England’s rates on five occasions, significantly lower in 2011/12.

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Prevalence: Children

Figure 15. Excess weight in 10-11 year olds, Barnsley, statistical neighbours and England (2013/14)

- Barnsley’s 2013/14 rate for excess weight in 10-11 year olds (33.5%) is the same as the rate for England.

- Compared to statistical neighbours, Barnsley’s rate is the fourth lowest.

Figure 16. Trend in excess weight in 10-11 year olds, Barnsley and England (2006/07 to 2013/14)

- Barnsley’s rates for excess weight in 10-11 year olds have fluctuated during the period 2006/07 to 2013/14. They have been lower than England’s rates on only one occasion, and significantly higher in 2006/07, 2007/08 and 2009/10.
Figure 15. Prevalence of excess weight by gender: Barnsley (2013/14)

- Figure 15 Illustrates the prevalence of excess weight amongst girls and boys in Barnsley.
- Boys in both age groups (4-5 and 10-11 year olds) have a higher prevalence of obesity and excess weight than girls.
- Girls in both age groups have a higher prevalence of being overweight.
Prevalence: Children

Prevalence at local level:

This section illustrates the prevalence of excess weight in 4-5 year olds and 10-11 year olds, within the Barnsley electoral wards. Data for three time periods (2011/12, 2012/13 and 2013/14) have been aggregated, to avoid the reporting of small numbers.

Figure 16. Excess weight in 4-5 year olds, Barnsley electoral wards (2011/12 to 2013/14)

- Seven of the 21 wards have a higher prevalence than England; St Helen’s ward being significantly higher.
- Three of the wards (Darton West, Penistone East and Penistone West) have a significantly lower prevalence of excess weight in 4-5 year olds than England.
- Rates range from 14.3% in Penistone East to 28.6% in St Helen’s.

Figure 17. Excess weight in 10-11 year olds, Barnsley electoral wards (2011/12 to 2013/14)

- 14 of the 21 wards have a higher prevalence than England, but none are significantly higher.
- The Darton West and Penistone East wards have a significantly lower prevalence of excess weight in 10-11 year olds than England.
- Rates range from 21.4% in Penistone East to 38.2% in Dearne South.
Lifestyle Factors: Adults

Physical Activity/Inactivity:

“Physical inactivity is the 4th leading risk factor for global mortality accounting for 6% of deaths globally. People who have a physically active lifestyle have a 20-35% lower risk of cardiovascular disease, coronary heart disease and stroke compared to those who have a sedentary lifestyle. Regular physical activity is also associated with a reduced risk of diabetes, obesity, osteoporosis and colon/breast cancer and with improved mental health. In older adults physical activity is associated with increased functional capacities. The estimated direct cost of physical inactivity to the NHS across the UK is over £0.9 billion per year. The Chief Medical Officer currently recommends that adults undertake 150 minutes (2.5 hours) of moderate activity per week, in bouts of 10 minutes or more.” (Public Health England, 2016).

Percentage of physically active/inactive adults: Public Health Outcomes Framework

- These data are derived from the Active People Survey (APS). The data show the percentage of individuals who met the Chief Medical Officer’s recommended guidelines on levels of physical activity (at least 150 minutes a week), and the percentage of individuals who were inactive (less than 30 minutes of physical activity a week).

Figure 18. Percentage of physically active adults, Barnsley, statistical neighbours and England (2015)

- Barnsley’s 2015 rate for physically active adults (50.7%), is significantly lower than the England rate of 57.0%.

- Compared to statistical neighbours, Barnsley’s rate is the fifth lowest.

Figure 19. Trend in percentage of physically active adults, Barnsley and England (2012 to 2015)

- Barnsley’s rates for physically active adults have fluctuated during the period 2012 to 2015. They have been lower than England’s rates at each time point, significantly lower in 2012, 2014 and 2015.

- The 2015 rate of 50.7% is an increase from the 2014 rate of 45.8%.
Lifestyle Factors: Adults

Physical Activity/Inactivity (continued):

Figure 20. Percentage of physically inactive adults, Barnsley, statistical neighbours and England (2015)

- Barnsley’s 2015 rate for physically inactive adults (34.6%), is significantly higher than the England rate of 28.7%.

- Compared to statistical neighbours, Barnsley’s rate is the fifth highest.

Figure 21. Trend in percentage of physically inactive adults, Barnsley and England (2012 to 2015)

- Barnsley’s rates for physically inactive adults have fluctuated during the period 2012 to 2015; this reflects the national trend.

- Barnsley’s 2015 rate of 34.6% is lower than the 2014 rate of 37.8%.

- Barnsley’s rates have been significantly higher than England’s at each time point during the period.

Table 1. Health costs of physical inactivity, by disease type, Barnsley, Yorkshire and the Humber and England (2009/10)

- Barnsley’s rate per 100,000 population for overall health costs of physical inactivity (£2,452,745) is higher than the regional and national rates.

- The greatest cost is experienced in the category of coronary heart disease (locally, regionally and nationally).

<table>
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<tr>
<th>Disease Type</th>
<th>Barnsley</th>
<th>Y&amp;H</th>
<th>England</th>
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<td>Lower gastrointestinal cancer</td>
<td>£392,320</td>
<td>£7,433,297</td>
<td>£67,816,189</td>
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<td>Breast cancer</td>
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<td>Diabetes</td>
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<td>Coronary heart disease</td>
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<td>Cost per 100,000 population</td>
<td>£2,452,745</td>
<td>£1,758,334</td>
<td>£1,817,285</td>
</tr>
</tbody>
</table>

Source: Sport England (Local Sport Profile)

Produced by the Research and Business Intelligence Team: Research&BusinessIntelligenceTeam@barnsley.gov.uk
Physical Activity:

Utilisation of outdoor space for exercise/health reasons: Public Health Outcomes Framework

These data are derived from Natural England’s Monitor of Engagement with the Natural Environment Survey (MENE). Data are weighted estimates of the proportion of residents taking a visit to the natural environment for health or exercise purposes. Visits to the natural environment are defined as time spent “out of doors” eg in open spaces in and around towns and cities, including parks, canals and nature areas; the coast and beaches; and the countryside including farmland, woodland, hills and rivers. This could be anything from a few minutes to all day. It may include time spent close to home or workplace, further afield or while on holiday in England. However this does not include routine shopping trips or time spent in own garden.

- Due to small sample size, confidence intervals are large. This could potentially lead to less reliable results.

Figure 23. Utilisation of outdoor space for exercise/health reasons, Barnsley, statistical neighbours and England (2014/2015)

- The proportion of residents in Barnsley utilising outdoor space for exercise/health reasons (19.1%) is higher than the England rate of 17.9%, but not significantly.

- Compared to statistical neighbours, Barnsley’s rate is the fourth highest.

Figure 24. Trend in utilisation of outdoor space for exercise/health reasons, Barnsley and England (2011/12 to 2014/2015)

- Barnsley’s rates for utilisation of outdoor space for exercise/health reasons have increased during the period 2011/12 to 2014/15; this reflects the national trend.

- Rates in Barnsley have moved from being significantly lower than the England rates in 2011/12 to 2013/14 to higher than the England rate in 2014/15.
Lifestyle Factors: Adults

Physical Activity:

Proportion of residents who walk (for at least 10 minutes) a given number of times per week or month

- These statistics are published by the Department for Transport, and are based on results from the Active People Survey (APS).

*Figure 25. Proportion of residents who walk (for at least 10 minutes) a given number of times per week or month, Barnsley, Yorkshire and the Humber and England (2014/15)*

- Barnsley’s rate for residents who walk (for at least 10 minutes) at least once a month (78.0%) is significantly lower than the rates for England (86.3%) and Yorkshire and the Humber (85.8%).

- Rates for those who walk at least once a week, three times a week or five times a week are also lower in Barnsley than in Yorkshire and the Humber and England; significantly lower than England in the once a week category.

- Rates reduce as frequency increases; this is reflected at regional and national level.

*Figure 26. Trend in proportion of residents who walk (for at least 10 minutes) at least five times a week, Barnsley, Yorkshire and the Humber and England (2012/13 to 2014/15)*

- The proportion of Barnsley residents who walk (for at least 10 minutes) at least five times a week has fluctuated during the period 2012/13 to 2014/15.

- Although Barnsley’s 2014/15 rate (47.7%) is higher than the 2012/13 rate of 43.2%, it is not significantly higher, as is the case in Yorkshire and the Humber and England.

Produced by the Research and Business Intelligence Team: Research&BusinessIntelligenceTeam@barnsley.gov.uk
Physical Activity:

Proportion of residents who cycle (any length or purpose) at a given frequency:

Department for Transport statistics

- These statistics are published by the Department for Transport, and are based on results from the Active People Survey (APS).

*Figure 27. Proportion of residents who cycle (any length or purpose) at a given frequency, Barnsley, Yorkshire and the Humber and England (2014/15)*

- Barnsley’s rates for residents who cycle once a month and once a week are **significantly lower** than the rates for England and Yorkshire and the Humber.

- The rates for residents who cycle three times a week and five times a week are lower in Barnsley than in Yorkshire and the Humber and significantly lower than England overall.

- Rates reduce as frequency increases; this is reflected at regional and national level.

*Figure 28. Trend in proportion of residents who cycle (any length or purpose) at least five times a week, Barnsley, Yorkshire and the Humber and England (2010/11 to 2014/15)*

- The proportion of Barnsley residents who cycle at least five times a week has fluctuated over the period 2010/11 to 2014/15, peaking at 2.0% in 2011/12. The 2014/15 rate of 1.0% is more than double the rate in 2013/14 (0.4%).

- Barnsley’s rates have been lower than the rates for Yorkshire and the Humber and England at each time point during the period.

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Fruit and Vegetable Consumption:

“The importance of diet as a major contributor to chronic disease and premature death in England is recognised in the White Paper 'Healthy Lives, Healthy People'. Poor diet is a public health issue as it increases the risk of some cancers and cardiovascular disease (CVD), both of which are major causes of premature death. These diseases, and type II diabetes (which increases CVD risk) are associated with obesity. The costs of diet related chronic diseases to the NHS and more broadly to society are considerable. Poor diet is estimated to account for about one third of all deaths from cancer and CVD. Average intakes of saturated fat, sugar, and salt are above recommendations while intakes of fruit and vegetables, fibre and some vitamins and minerals are below recommendations.” (Public Health England, 2016).

Proportion of population meeting the recommended ‘5-a-day’, average number of portions of fruit consumed daily and average number of portions of vegetables consumed daily: Public Health Outcomes Framework

- These data are derived from the Active People Survey (APS).
- Only two time points of data are currently available (2014 and 2015)

Figure 29. Proportion of population meeting the recommended ‘5-a-day’, Barnsley, statistical neighbours and England (2015)

- Just over half the Barnsley population (52.6%) eat the recommended ‘5-a-day’; slightly higher than the England rate of 52.3%.
- Compared to statistical neighbours, Barnsley’s rate is the third highest.
- Trend data show that Barnsley’s 2015 rate of 52.6% decreased slightly from the 2014 rate of 52.8%.
Lifestyle Factors: Adults

Fruit and Vegetable Consumption (continued):

**Figure 30. Average number of portions of fruit consumed daily, Barnsley, statistical neighbours and England (2015)**

- Barnsley’s average number of portions of fruit consumed daily (2.4) is slightly lower than the England rate of 2.5, but not significantly lower.
- Trend data show that Barnsley’s 2015 rate of 2.4 is the same as the 2014 rate.

**Figure 31. Average number of portions of vegetables consumed daily, Barnsley, statistical neighbours and England (2015)**

- Barnsley’s average number of portions of vegetables consumed daily (2.4) is slightly higher than the England rate of 2.3, but not significantly higher.
- Compared to statistical neighbours, Barnsley’s 2015 rate is the **highest** (jointly with Calderdale and Stockton-on-Tees).
- Trend data show that Barnsley’s 2015 rate of 2.4 is slightly higher than the 2014 rate.

Produced by the Research and Business Intelligence Team: Research&BusinessIntelligenceTeam@barnsley.gov.uk
Lifestyle Factors: Adults

Proportion of adult population (16+) that eat healthily at local level: Public Health England (Local Health)

- This section illustrates the percentage of adults, aged 16+, that eat healthily, by Barnsley electoral wards. Healthy eating is defined as those who consume 5 or more portions of fruit and vegetables per day. The modelled estimates are published by Public Health England, derived from individual-level data from the Health Survey for England (2006-2008).
- Due to smaller cohorts at the lower level of geography, confidence intervals are large. This could potentially lead to less reliable results.

Figure 32. Proportion of adults (16+) who eat healthily, Barnsley electoral wards, Barnsley and England (2006/08)

Figure 33. Proportion of adults (16+) who eat healthily, Barnsley electoral wards (2006/08)

- At electoral ward level, rates range from 15.7% in Dearne South to 30.1% in Penistone East.
- All of the 21 wards, apart from Penistone East have a lower rate than the rate for England (28.7%); the rate in Dearne South being significantly lower than England.
- Rates are generally lower in the wards in the east of the borough.

Produced by the Research and Business Intelligence Team: Research&BusinessIntelligenceTeam@barnsley.gov.uk
Physical Activity and Sedentary Behaviour:

What About YOUth (WAY) Survey

These data are derived from the What About YOUth (WAY) Survey, completed in 2014. The survey targets 15 year olds nationally and asks questions relating to general health, well-being and engagement in risky behaviours. The aim of the study is “to make it easier for doctors, nurses and local authorities to help young people” and was launched as part of the Government’s initiative to improve the health of young people (What About YOUth 2016).

- Barnsley’s 2014 rate for the proportion of 15 year olds who are physically active for at least one hour per day for seven days a week (15.8%), is higher than the England rate of 13.9%, although not significantly higher.

- Compared to statistical neighbours, Barnsley’s rate is the second highest.

Figure 34. Percentage of 15 year olds who are physically active for at least one hour per day seven days a week, Barnsley, statistical neighbours and England (2014)

- Barnsley’s 2014 rate for the proportion of 15 year olds who are sedentary for 7 or more hours a day on weekdays (76.5%), is significantly higher than the England rate of 70.0%.

- Compared to statistical neighbours, Barnsley’s rate is the fourth highest.

Figure 35. Sedentary behaviour: percentage sedentary for 7 or more hours a day on weekdays, Barnsley, statistical neighbours and England, 2014
Physical Activity:
Year 10 Health and Lifestyle Survey

These data are derived from the Health and Lifestyle Survey of Year 10 pupils, completed in Barnsley schools in 2013. The survey provides information and insights about the health and lifestyle choices that Barnsley young people make. Previous surveys of Year 10 pupils in Barnsley schools were undertaken in 2006, 2008 and 2010.

Figure 36. Proportion of Year 10 pupils who participate in physical activities outside of taught lessons (2008, 2010 and 2013)

- The proportion of boys who participate in physical activities outside of taught lessons is higher than the proportion of girls who do, at each time point.
- The rate for girls has increased slightly from 88.1% in 2008 to 88.6% in 2013, whereas the rate for boys has declined from 94.8% to 91.1%.

Figure 37. Number of hours per week Year 10 pupils spend doing physical activity (2008, 2010 and 2013)

- Just over a third of pupils take part in physical activity for either 1-3 or 4-6 hours.
- The proportion of pupils participating in physical activity for 1-3 hours per week was significantly higher in 2013 than in 2008 and 2010.
- However, the proportion participating in physical activity for 7-10 hours or 10+ hours was lower in 2013 (significantly lower for 10+ hours).
Lifestyle Factors: Young People

Fruit and Vegetable Consumption: What About YOUth (WAY) Survey

Figure 38. Percentage of 15 year olds who eat 5 portions or more of fruit and veg per day, Barnsley, statistical neighbours and England, 2014

Barnsley’s 2014 rate for the proportion of 15 year olds who eat 5 portions or more of fruit and veg per day (44.5%), is **significantly lower** than the England rate of 52.4% (figure 38).

Compared to statistical neighbours, Barnsley’s rate is the fifth lowest (figure 38).

The proportion of girls in Barnsley who eat 5 portions or more of fruit and veg per day (38.5%) is **lower** than the proportion of boys who do (50.3%) (figure 39).

On average, 15 year olds in Barnsley eat 4.7 portions of fruit and veg per day. Amongst statistical neighbours, rates range from 4.3 to 5.3 portions per day; the rate for England is 5.2 portions per day.

Figure 39. Percentage of 15 year olds who eat 5 portions or more of fruit and veg per day, by gender in Barnsley, 2014
Coronary Heart Disease (CHD)

Coronary heart disease (CHD) is the leading cause of death both in the UK and worldwide. It is usually caused by a build-up of fatty deposits (atheroma) on the walls of the arteries around the heart, made up of cholesterol and other waste substances. Being overweight or obese is one of the risk factors for developing CHD.

CHD prevalence information is derived from the Quality Outcomes Framework (QOF). It illustrates the prevalence of recorded CHD in the GP registered population.

**Figure 40. Prevalence of CHD, Barnsley, statistical neighbours and England, 2014/15**

- Barnsley’s 2014/15 CHD prevalence rate (4.6%) is **significantly higher** than the rate for England (3.2%).
- Barnsley’s 2014/15 rate of 4.6% represents 11,662 people in Barnsley who have been diagnosed with CHD.
- Compared to statistical neighbours, Barnsley’s rate is the **second highest**.

**Figure 41. Trend in prevalence of CHD, Barnsley and England (2012/13 to 2014/15)**

- Barnsley’s rates for CHD prevalence have been **higher** than the rates for England and South Yorkshire and Bassetlaw Area Team at each time point during the period 2012/13 to 2014/15.
- Rates have declined slightly during the period; this is consistent with the regional and national trend.
Diabetes

“Type 2 diabetes (approximately 90% of diagnosed cases) is partially preventable – it can be prevented or delayed by lifestyle changes (exercise, weight loss, healthy eating). Diabetic complications (including cardiovascular, kidney, foot and eye diseases) result in considerable morbidity and have a detrimental impact on quality of life” (Public Health England, 2016).

Diabetes prevalence information at local authority level is calculated by the Public Health England Knowledge and Intelligence Team (Northern and Yorkshire). It is derived from Quality Outcomes Framework (QOF) data, which illustrates the prevalence of recorded diabetes in the GP registered population aged 17 and over.

Figure 42. Prevalence of diabetes (17+), Barnsley, statistical neighbours and England, 2014/15

- Barnsley’s 2014/15 diabetes prevalence rate (7.0%) is significantly higher than the rate for England (6.4%).
- Barnsley’s 2014/15 rate of 7.0% represents 10,959 people in Barnsley who have been diagnosed with diabetes.
- Compared to statistical neighbours, Barnsley’s rate is the sixth highest (joint with County Durham, Dudley and Wigan).

Figure 43. Trend in prevalence of diabetes (17+), Barnsley and England (2010/11 to 2014/15)

- Barnsley’s rates for diabetes prevalence have been significantly higher than the rates for England at each time point during the period 2010/11 to 2014/15.
- The 2014/15 rate of 7.0% is the highest during the period; this reflects the national trend.
Non-Alcohol Related Fatty Liver Disease

“Obesity is an important risk factor for liver disease because of its link to non-alcoholic fatty liver disease (NAFLD), which is the term used to describe accumulation of fat within the liver that is not caused by alcohol. It is usually seen in people who are overweight or obese. Although the great majority of people with NAFLD never experience any symptoms from the condition, a minority may progress to a more serious form of the disease known as non-alcoholic steatohepatitis, which may ultimately lead to fibrosis and, in a small number of cases, Cirrhosis” (Public Health England, 2016).

Figure 44. Hospital admission rate for non-alcoholic fatty liver disease (NAFLD), Barnsley, statistical neighbours and England, 2013/14

- Barnsley’s hospital admission rate for NAFLD (4.2 per 100,000) is higher than the rate for England (2.8 per 100,000), but not significantly higher.

- Compared to statistical neighbours, Barnsley’s rate is the second highest.

- Note: Counts of hospital admissions are small; values for some areas have been suppressed for disclosure control. The rate for Barnsley represents 10 admissions during the year 2013/14.

Figure 45. Under 75 mortality rate from non alcoholic liver disease (NAFLD), Barnsley, statistical neighbours and England, 2012 to 2014

- Barnsley’s rate for mortality from NAFLD in under 75’s (1.2 per 100,000) is higher than the rate for England (0.6 per 100,000), but not significantly higher.

- Compared to statistical neighbours, Barnsley’s rate is the fifth highest. Note: The number of deaths from NAFLD in people aged under 75 is small; Barnsley’s rate for the three-year period 2012 to 2014 represents eight deaths.
Various risk factors contribute to deaths, a large proportion of which can be attributed to modifiable lifestyle factors. Obesity contributed to 9% of deaths in Barnsley in 2012-14 (figure 46).

Out of a total of 6,876, obesity led to approximately 589 deaths in Barnsley, of which more than half (306: 51.9%) were due to coronary heart disease (figure 47).

Produced by the Research and Business Intelligence Team: Research&BusinessIntelligenceTeam@barnsley.gov.uk
Excess weight in adults (figure 2): Proportion of adults (16+) with a BMI classified as overweight (including obese), calculated from adjusted height and weight variables. Data are from Active People Survey 6 quarter 2 to Active People Survey 9 quarter 1 (mid-Jan 2012 to mid-Jan 2015). Adults are defined as overweight (including obese) if their body mass index (BMI) is greater than or equal to 25kg/m².

Obesity in adults (16+) (figures 3 and 4): Proportion of patients (16+) on GP registers who have a record of a BMI of 30 or higher in the previous 12 months.

Excess weight in 4-5 and 10-11 year olds (figures 13 and 15): Proportion of children aged 4-5/10-11 years classified as overweight or obese. Children are classified as overweight (including obese) if their BMI is on or above the 85th centile of the British 1990 growth reference (UK90) according to age and sex.

Physically active adults (figure 18): The number of respondents aged 16 and over, with valid responses to questions on physical activity, doing at least 150 “equivalent” minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more in the previous 28 days expressed as a percentage of the total number of respondents aged 16 and over.

Physically inactive adults (figure 20): The number of respondents aged 16 and over, with valid responses to questions on physical activity, doing less than 30 “equivalent” minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more in the previous 28 days expressed as a percentage of the total number of respondents aged 16 and over.

Health costs of physical inactivity (table 1): Sport England commissioned the British Heart Foundation Health Promotion Research Group at Oxford University to prepare estimates of the primary and secondary care costs attributable to physical inactivity for Primary Care Trusts (PCT) across England for 2009/10. Figures for local authorities were estimated using the population within each local authority as a proxy to understand how much of a local authority belongs to each PCT. The estimates are a starting point in understanding the costs of physical inactivity in a particular area. The five disease areas used in this estimate contribute a smaller proportion than the true total value of diseases related to physical inactivity. Other important disease areas were not included (due to a lack of population attributable fractions). This means that the true costs are likely to be much higher.

Barnsley Residents’ Survey (figure 22): The percentage of individuals who responded to the question: “Each week, how often do you take part in a sport or physical activity that makes you slightly out of breath for 30 minutes or more?”

Utilisation of outdoor space for exercise/health reasons (figures 23 and 24): Weighted estimates of the proportion of residents in each area taking a visit to the natural environment for health or exercise purposes. Visits to the natural environment are defined as time spent “out of doors” eg in open spaces in and around towns and cities, including parks, canals and nature areas; the coast and beaches; and the countryside including farmland, woodland, hills and rivers. This could be anything from a few minutes to all day. It may include time spent close to home or workplace, further afield or while on holiday in England. However this does not include routine shopping trips or time spent in own garden. Respondents are asked to indicate how many visits they have taken to the natural environment in the last 7 days. If any visits have been taken in this period, they are then asked to provide details of one visit.
Proportion of population meeting the recommended ‘5-a-day (figure 29): All respondents to the Active People Survey who answered both of the following questions: 1) How many portions of fruit did you eat yesterday? Please include all fruit, including fresh, frozen, dried or tinned fruit, stewed fruit or fruit juices and smoothies. 2) How many portions of vegetables did you eat yesterday? Please include fresh, frozen, raw or tinned vegetables, but do not include any potatoes you ate.

Average number of portions of fruit consumed daily (figure 30): All respondents to the Active People Survey who answered the following question: How many portions of fruit did you eat yesterday? Please include all fruit, including fresh, frozen dried or tinned fruit, stewed fruit or fruit juices and smoothies.

Average number of portions of vegetables consumed daily (figure 31): All respondents to the Active People Survey who answered the following question: How many portions of vegetables did you eat yesterday? Please include fresh, frozen, raw or tinned vegetables, but do not include any potatoes you ate.

Hospital admission rate for non-alcoholic fatty liver disease (NAFLD) (figure 44): Number of hospital admissions (Finished Consulted Admission Episodes) due to non-alcoholic fatty liver disease (NAFLD) with a primary diagnosis (DIAG_01) of ICD10 code K760. Regular attenders are excluded. Please note that a patient may be admitted more than once. Admissions for non-residents, or those of patients whose normal place of residence cannot be ascertained as being in England, are excluded from the analyses.

Under 75 mortality rate from non-alcoholic liver disease (NAFLD) (figure 45): Number of deaths from non-alcoholic liver disease (classified by underlying cause of death recorded as ICD code K760), registered in the respective calendar years, in people aged under 75. Counts of deaths for years up to and including 2013 have been adjusted where needed to take account of the IRIS ICD-10 coding change introduced in 2014. Counts of deaths for years up to and including 2010 have been double adjusted by applying comparability ratios from both the 2011 coding change and the IRIS coding change where needed to take account of both the IRIS coding change and the ICD-10 coding change introduced in 2011.
Confidence Intervals:

Confidence intervals are a statistical method of accounting for variability in data. Variability means that data collected under the same circumstances can yield different results. The confidence interval is therefore used to represent with a confidence of 95% the range in which the true value will lie. Where confidence intervals do not overlap, we say that the difference is statistically significant. Statistically significant differences will indicate that there is a real underlying difference between the proportions.

Statistical Neighbours and ‘Similar’ CCGs

Statistical neighbours are local authorities that are deemed to have similar characteristics. Comparing against statistical neighbours provides an initial guide as to whether performance is above or below the level that might be expected. CIPFA statistical neighbours have been used in this briefing, as recommended by Public Health England.

Likewise, ‘similar’ CCGs are deemed to have similar characteristics based on demographic variables. The ‘similar’ CCGs used in this briefing are those identified by Public Health England/NHS England in their ‘Commissioning for Value’ packs.

https://www.england.nhs.uk/resources/resources-for-ccgs/comm-for-value/

References/Data Sources:


