Camden

NHS
Camden
Clinical Commissioning Group

CAMDEN PROFILE
PUBLIC HEALTH INTELLIGENCE

Adult Obesity and Overweight Profile

First edition
October 2013

About this profile

Purpose

The purpose of this profile is to better understand the burden of obesity and overweight in Camden. The findings will help inform the development of the Camden adult obesity care pathway and inform decision makers and commissioners, including the Camden Clinical Commissioning Group, about the needs of the population in relation to long term conditions associated with being overweight or obese.

This profile is concerned with adults only (age 18 and over). Most of the data presented in this profile is based on the Camden GP Public Health dataset 2012.

Contents

Further information and feedback

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We would also very much welcome your comments on these profiles and how they could better suit your individual or practice requirements, so please do contact us with your ideas.

Recommendations and key messages

RECORDING OF BMI

- Most adults (85%) registered with a Camden GP practice have had their BMI recorded at some point in time. However, only 39% have had their BMI recorded recently (within the past 15 months).
- This means that about 30,000 adults registered with Camden GPs have never had their BMI recorded and approximately 93,000 adults have not had it recently recorded.
- Levels of BMI recording vary between different population groups:
  - Men are less likely than women to have a BMI recording (83% vs. 87%) and a recent recording (34% vs. 44%).
  - Recent BMI recording increases from age 40-44 (33%) up until 75-79 years (54%), after which it starts decreasing again.
  - BMI recording is higher among people with, or at risk of, ill health. For example, people diagnosed with one or more long term condition are more likely to have a recent BMI recording compared to those with no diagnosis (59% vs. 39%). Obese and overweight people are more likely to have had their BMI recorded in the past 15 months compared to people of healthy weight (49-63% vs. 45%).
- There is also substantial variation in recording of BMI across Camden GP practices: ranging from 69% to 97% for ever recorded, and from 17% to 57% for recorded within the past 15 months.

Recommendations

1. There is scope to improve recording and recent recording of BMI, in particular among men, younger people, and people diagnosed with one or more long term conditions. GP practices should therefore review their level of recording in these groups and consider how a consistent approach to recording BMI in these groups can be achieved.
2. Taking BMI measurements can be a starting point to raising the issue of weight and referral especially with overweight people, helping prevent progression to obesity. It is essential that GPs and other clinical staff are equipped to raise the issue of weight and further work is needed to explore models of delivering Raising the Issue of Weight Training to GPs and practice staff.
3. GP locality groups should use the practice obesity and overweight prevalence date to inform practice level targets relating to number of referrals into weight management services. Performance against targets should be reported back to GPs at GP locality meetings.

Recommendations and key messages continued

OVERWEIGHT AND OBESITY PREVALENCE

- There are about 42,700 overweight adults registered with Camden GP practices and about 20,400 who are obese. This equates to nearly one-in-five being overweight and about one-in-ten being obese. The numbers of overweight and obese people may be underestimated due to a substantial proportion of people with unknown BMIs.
- The national modelled obesity prevalence estimate for Camden (15%) is higher than the prevalence of obesity in adults registered with a Camden GP practice (10%). This may be explained by under-recording of obese people in GP data and/or inaccuracies in the modelling.
- National modelled obesity estimates suggest that prevalence in Camden is lower than both London (21%) and England (24%).
- Obesity and overweight varies by demographic and socioeconomic factors in Camden:
  - Men (39%, 37,100) are less likely to be of healthy weight compared to women (49%, 53,300). However, while men are more likely to be overweight (27% vs. 17%), women and men are equally likely to be obese (10%). These figures could be biased, however, due to a lower level of BMI recording in men.
  - The prevalence of obesity increases with age, up until 65-79 years by which time around 20% are obese. The prevalence of overweight increases with age up until 70-74 years when 32% are overweight.
  - Black people are 15% more likely to be overweight and 71% more likely to be obese compared to the Camden average adjusted for age. Asian people are 36% more likely to be overweight and 61% more likely to be obese compared to the Camden average. However, the numbers of Asian and Black people who are overweight or obese are much lower than the numbers of White people in these groups (9,700 and 5,600 vs. 40,000 respectively).
  - Obesity prevalence clearly increases with increasing levels of deprivation, with those living in the most deprived areas in Camden being 26% more likely to be obese compared to the Camden average and adjusted for age. People with learning disabilities are nearly three times more likely to be obese (146 people) compared to the average population.
  - Differences in overweight and obesity prevalence are observed by GP practice. Twelve of Camden's GP practices have higher obesity prevalence (standardised for age) compared to the Camden average. Some of these differences may be explained by varying levels of recording and differences in practice populations other than age, for example ethnicity and deprivation.

Recommendations and key messages continued

Recommendations

1. While Camden has a lower prevalence of overweight and obesity compared to England as a whole, the numbers of people who are overweight or obese requires a whole system approach. This approach needs to include tackling the wider determinants that impact upon poor health including education, employment, housing and poverty.
2. The commissioning of care pathways for obesity should take into consideration the differences in prevalence across different population groups in Camden. For example:
   - Marketing of the locally commissioned weight management services should acknowledge the inequalities in overweight and obesity prevalence by appealing to population groups with higher prevalence, such as Black and Asian ethnic groups.
   - Weight management services should be accessible across the borough, particularly in areas of high deprivation where prevalence is known to be higher.
   - Meeting the specialist needs of people with learning difficulties.
   - Weight management services should be integrated with other lifestyle services to support people in addressing multiple unhealthy behaviours.

MORBID OBESITY

- There are 2,055 adults who are registered with Camden GP practices who are recorded as morbidly obese (BMI ≥40kg/m^2).
- The prevalence of morbid obesity amongst all adults with a Camden GP (1.0%) is lower than that of morbidly obese adults in England (1.9% in 2006-08) as presented in the Foresight Report 2007.
- Camden women are more than twice as likely to be morbidly obese than men. There are 1,400 morbidly obese women (1.3%) and 700 morbidly obese men (0.7%).
- The age specific rate of morbid obesity increases with age until 50-59 and then decreases. The greatest numbers of morbidly obese men are aged between 30-34 years (81, 0.6%) and in women aged between 50-54 years (154, 2.7%).
- Black people are twice as likely to be morbidly obese compared to the Camden average. Fourteen percent of morbidly obese people are Black people. However, most morbidly obese people are White and not Black (1,400 vs. 300). People who live in the most deprived areas in Camden are 41% more likely to be morbidly obese compared to the Camden average, adjusted for age.

Recommendations

1. The obesity pathway should direct morbidly obese clients into Tier 3 Specialist Weight Management services before being considered for more invasive Tier 4 surgical and non surgical treatment.

Recommendations and key messages continued

LONG TERM CONDITIONS AND COMORBIDITIES

- There are around 36,600 people in Camden diagnosed with a long term condition[1] (LTC), of whom 11,300 are overweight (31%) and 9,000 are obese (23%), equating to over half of all people with LTC.
- Obese people are almost twice as likely to be diagnosed with a long term condition compared to those of a healthy weight. Overweight people and obese people are around two times more likely and five times more likely to be diagnosed with diabetes compared to someone of a healthy weight respectively.
- The association between overweight/obesity and prevalence of LTCs varies to some extent by demographic factors. For example, obese women and Black and Asian people are more likely to be diagnosed with diabetes than the Camden average, taking age into account. Overall, however, the largest number of people with the condition are White obese men (760) followed by White obese women (640).
- Despite the higher risks of people with elevated BMI having cardiovascular disease and diabetes, not all obese people have had recent blood pressure, blood glucose or cholesterol measurements recorded.
  - Nearly 50% (19,700) of overweight and 31% (5,800) of obese people have not had their cholesterol measured, ranging from 12% to 74% of obese people across Camden GP practices.
  - Ten percent (4,100) of overweight people and 6% (1,000) of obese people have never had their blood pressure recorded. The percentage of obese people who have never had their blood pressure recorded ranges between 0% and 55% by Camden GP practice.
  - Eight-five percent (35,000) of overweight people and 71% (13,400) of obese people have not had their blood glucose (HbA1c) levels measured, ranging from 34% to 89% of obese people across Camden GP practices.

Recommendations

1. The obesity pathway should integrate with locally commissioned services, including those promoting self management of long term conditions, to ensure obese clients within existing services are identified and referred into weight management services. To support this, the commissioner of weight management services should ensure staff should have access to raising the issue of weight training and service referral information.
2. Given the importance of obesity as a risk factor for diabetes and the high prevalence of diabetes in overweight and obese adults in Camden, it is important that the development of obesity and diabetes care pathways are integrated to ensure appropriate management and treatment of these inter-related conditions.
3. Findings clearly show opportunities for case finding and secondary prevention across Camden through measuring obese people's blood pressure, blood glucose and cholesterol levels, in line with NICE obesity guidelines. GP practices with lower levels of measurements recorded should be encouraged to consider whether there is more they could do.

[1]For this profile long term conditions are taken to include: CHD/MI, stroke/TIA, heart failure, atrial fibrillation, hypertension, cancer (excluding skin cancer), diabetes, serious mental illness, chronic depression, dementia, COPD, CKD and CLD.

Recommendations and key messages continued

MANAGEMENT, TREATMENT AND CARE OF OVERWEIGHT AND OBESITY

- Obese people are more likely to be offered dietary advice or weight management referral compared to overweight people, who in turn are more likely to be offered advice compared to people of healthy weight (48% vs. 29% vs. 16%).

Recommendations

1. Locally commissioned NICE compliant services should be routinely evaluated in line with national guidance and templates.
2. In order to assist GPs in referring overweight and obese clients into appropriate services, regular information and service updates should be communicated via existing channels.
3. Prescription of pharmacological treatment should be compliant with national guidance and local supply guidance.

Understanding the data - How to use these analyses

It is important to bear in mind the following when looking at this profile (or any other public health intelligence products):

– It is the variation that is important

In this profile, it is the variation between Camden GP practices that should be the main point of reflection rather than average achievement. It is the *unexplained variation* (defined as: *variation in the utilisation of health care services that cannot be explained by differences in patient populations or patient preferences*) as this can highlight areas for potential improvements. For example, it may highlight under- or over- use of some interventions and services, or it may identify the use of lower value or less effective activities.

The data alone cannot tell us whether or not there are good and valid reasons for the variation. It only highlights areas for further investigation and reflection. A perfectly valid outcome of investigations is that the variation is as expected. However, to improve the quality of care and population health outcomes in Camden, a better understanding of reasons behind the variation at a GP practice level with clear identification of areas for improvement is needed.

– Reaching 100% achievement

The graphs may show 100% on their y-axis (vertical) but there is no expectation that 100% will be (ever be) achieved for the vast majority of indicators. There will always be patients for whom the intervention is unsuitable and/or who do not wish to have the intervention. Again, it is about the variation between different GP practices, not an expectation of 100% achievement.

Ideally, there would be benchmarking against the achievements in Camden with other deprived London boroughs (i.e. with similar health needs), to give an indication of realistic level of achievement for specific indicators across the whole population and a Camden position, but these data are not currently available.

– Populations not individuals

Epidemiology is about the health of the population, not the individual. In this profile this is either all of Camden's registered population or a GP practice population. It includes everyone registered on GP lists at the end of September 2012, whether they attend the practice regularly or not, or never at all.

– Beware of small numbers

Some of the graphs have small numbers in them. They have been left in so that all GP practices can see what is happening in their practice (according to the data). In these cases, the wide 95% confidence intervals will signify the uncertainty around the percentages, but be careful when interpreting them.

– Problems with coding and/or data extraction

There were some specific problems with data extractions from some GP practices for particular variables and these have been noted on the relevant graphs. If after review of the data, any GP practices think there are other problems with coding or data extraction, we will investigate and will amend publications as appropriate: publichealth.intelligence@islington.gov.uk

Understanding the data: rates and ratios

95% confidence intervals (95% CI)

- Percentages and standardised ratios are reported with 95% confidence intervals. These quantify imprecision in the estimate.
- The imprecision is influenced by the random occurrences that are inherent in life.
- By comparing the 95% CIs around estimates or a target, we can say whether statistically, there are differences or not in the estimates we are observing, identifying which areas to focus on.

Indirectly standardised prevalence ratios (IDSR)

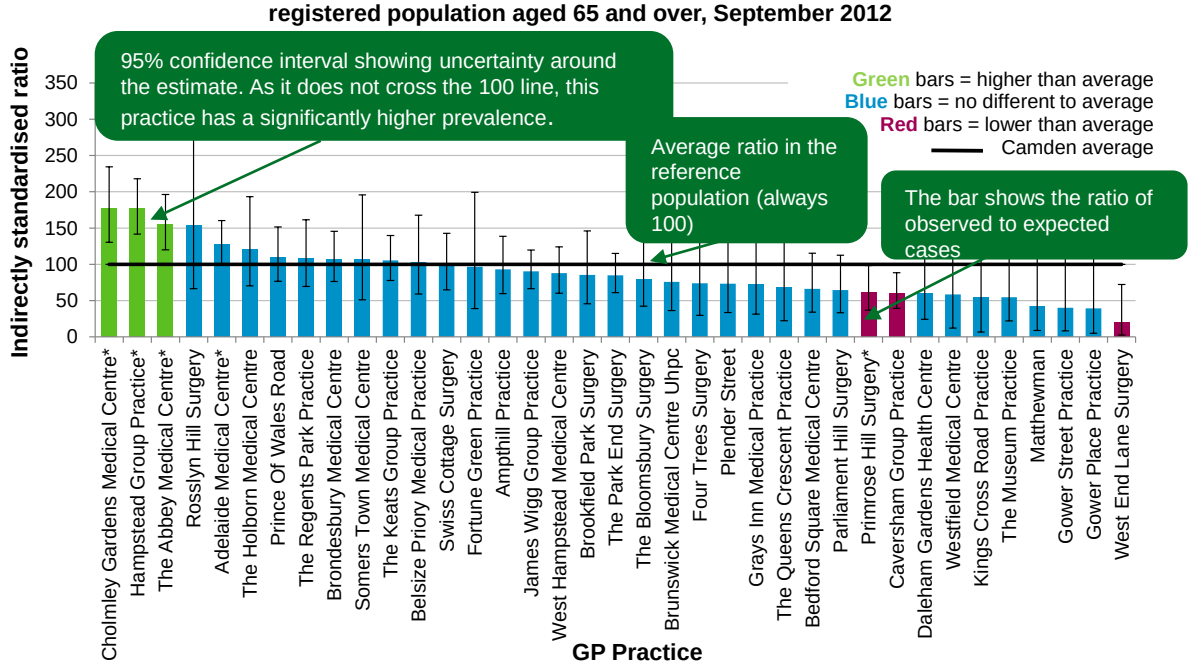
Why is it used?

- These ratios are the number of people diagnosed with each condition, relative to the number of events expected if the practice had the same disease profile and age structure as the Camden average.
- By using the standardised ratios, any differences in disease prevalence because of differences in age structures are taken into account. This allows for direct comparisons to be made (robustly) between practices with different population age structures.

Interpreting the values

- The Camden average is always 100. If the IDSR is over 100, it means that the practice had a higher than expected prevalence of the condition compared to Camden (and this was not due to the practice having an older population, for example). If the IDSR is less than 100, it means the practice had a lower than expected prevalence.
- The size of the IDSR tells how different a practice is from Camden. For example, an IDSR of 150 for a practice shows that prevalence is 50% higher than the Camden average. Conversely, an IDSR of 60 indicates that the practice was 40% lower than the Camden average.

Indirectly age standardised ratio of dementia prevalence by GP practice, Camden's registered population aged 65 and over, September 2012



Source: Camden's GP PH dataset, 2012
Note: St. Philips Medical Centre and Camden Health Improvement Practice are excluded

* Practice is associated with one or more care homes

Understanding the data: data sources

Camden GP PH Dataset

- Much of the epidemiological analysis in this profile has been undertaken using an anonymised patient-level dataset from GP practices in Camden, in agreement with local GPs and with governance from our multi disciplinary Health Intelligence Advisory Group.
- The dataset includes key information on demographics (including language and country of birth), behavioural and clinical risk factors, key conditions, details on the control and management of conditions, key medications, and interventions.
- This unique resource means that for the first time in Camden, it is possible to undertake in depth epidemiological analysis of primary care data for public health purposes, strengthening evidence based decision making within the borough at all levels.
- Four practices (Ampthill Practice, The Regents Park Practice, Brunswick Medical Centre UPHC and Kings Cross Road Practice) are excluded from selected charts as BMI values are missing in the dataset for these practices which may be due date extraction problems. However, these practices are included in BMI recording charts as data are available for the date BMI was recorded.

Health Survey for England

- Modelled estimates for obesity prevalence for all London boroughs, London and England were calculated by the National Obesity Observatory, now part of Public Health England, based on Health Survey for England data.

Definition of BMI classes

BMI classification

- This profile uses Body Mass Index (BMI) as recorded in the Camden GP Public Health dataset 2012. BMI is the standard measurement for determining a person's weight status or class. It is calculated by dividing a person's weight in kilograms (kg) by the square of their height in metres (m^2).
- BMI should be interpreted with caution as it is not a direct measure of adiposity (the distribution of stored fat within the human body). There is also some debate about the use of BMI as a classification of weight status associated with some ethnic groups, particularly South Asians, because of underlying differences in the way fat is stored which leads to higher risks of developing obesity-related long term conditions at generally lower BMIs. The classification for different ethnic groups is yet to be officially verified, but in the meantime, South Asian, Chinese and Japanese individuals are generally considered to be overweight with a BMI greater than 23 kg/m^2 and obese with a BMI greater than 27.7kg/m^2.
- Waist circumference and waist-to-hip ratios when used in conjunction with BMI are thought to provide a better measure of obesity but are not routinely recorded.

Classification used in this profile

- This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided (Table 1).
- The effect of lowering the BMI thresholds for South Asians on overall obesity and overweight prevalence in Camden is minor, however: the difference is 0.7 percentage points for obesity and 0.7 percentage points for overweight.

Table 1: The international classification of adult underweight, overweight and obesity according to BMI

Weight status	Body Mass Index (BMI) kg/m^2
Underweight	Less than 18.5
Healthy weight	18.5 to 24.9
Overweight	25.0 to 29.9
Obesity class I	30.0 to 34.9
Obesity class II	35.0 to 39.9
Obesity class III	40.0 to 83.9

Source: World Health Organisation (WHO), 2004

What works?

Obesity care pathways

- Integrated weight management care pathways are important in supporting overweight and obese persons, ensuring they receive an equitable service which is aligned with local need.
- A tiered approach should be used when managing overweight and obese people.

Tier	Service
1	Brief interventions and basic lifestyle advice in the community and primary care
2	Community based multi-component weight management service
3	Specialist multi-disciplinary service within the community/ prescribing of weight reduction drugs
4	Hospital based obesity service e.g. bariatric surgery

Identification and classification

- Health professionals should use clinical judgement when to measure BMI. Opportunities include registration with a GP practice, routine health check, or consultation for related conditions.

Brief Interventions

- There is good evidence to suggest that brief interventions can lead to short term changes in both behaviour and body weight.
- Brief interventions must be focussed on both diet and physical activity and be delivered by trained practitioners.

Weight management services

- Effective weight management services should be multi-component (diet, behaviour, physical activity) to achieve weight loss or prevent weight gain as single strategy approaches are not as effective on their own.
- Services should include behaviour change strategies to increase physical activity levels or decrease inactivity, improve eating behaviour and reduce energy intake.
- Weight reduction drugs should be considered for those who have not reached their target weight loss or have reached a plateau on dietary, activity, and behavioural approached alone in line with NICE guidelines.
- Bariatric surgery is considered a treatment option for those adults who fulfil the eligibility criteria set by NICE.

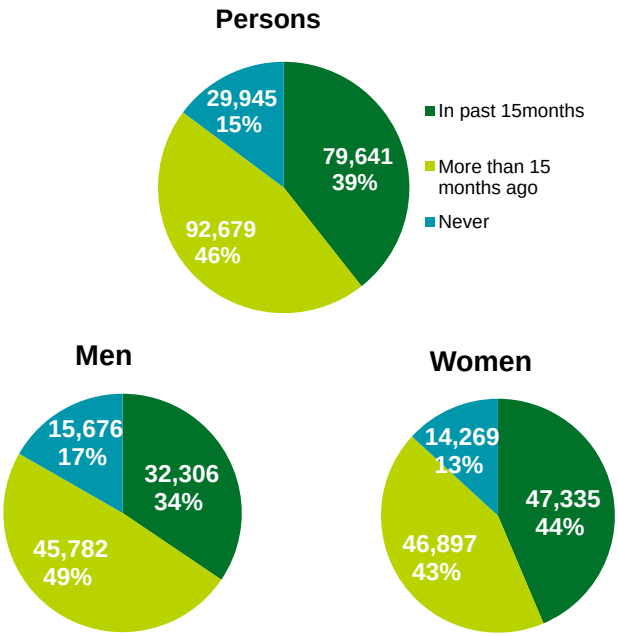
SECTION 1: RECORDING OF BMI

This section looks at recording of BMI by different demographic factors including ethnicity, sex and age.

Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

BMI recording by sex

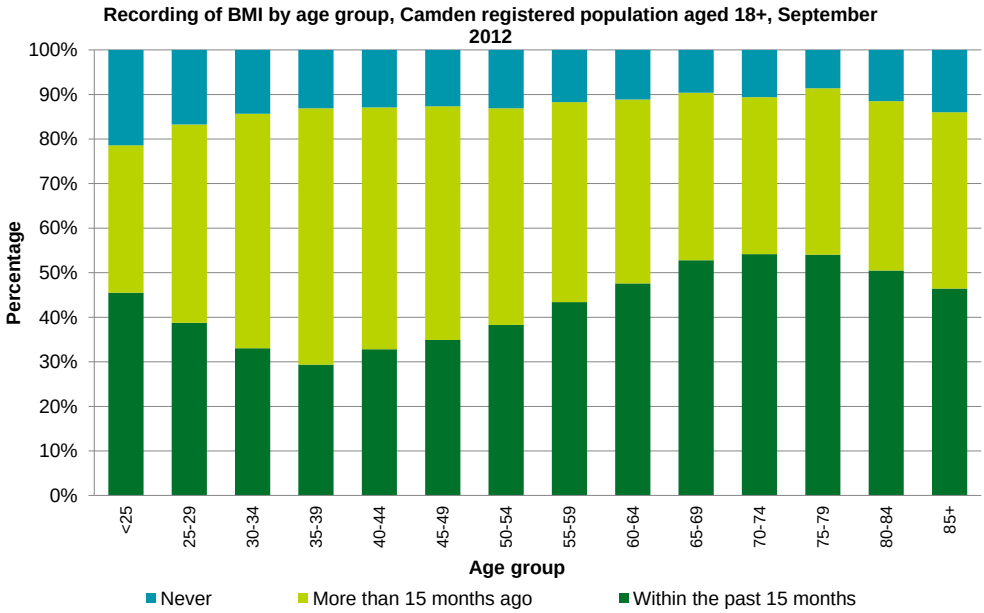
Recording of BMI by sex, Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

- A large proportion of people (85%) in Camden GP practices have had their BMI recorded at some point. However, only 39% had it recorded in the past 15 months.
- Women (44%) are significantly more likely to have had their BMI recorded in the past 15 months, compared to men (34%).

BMI recording by age

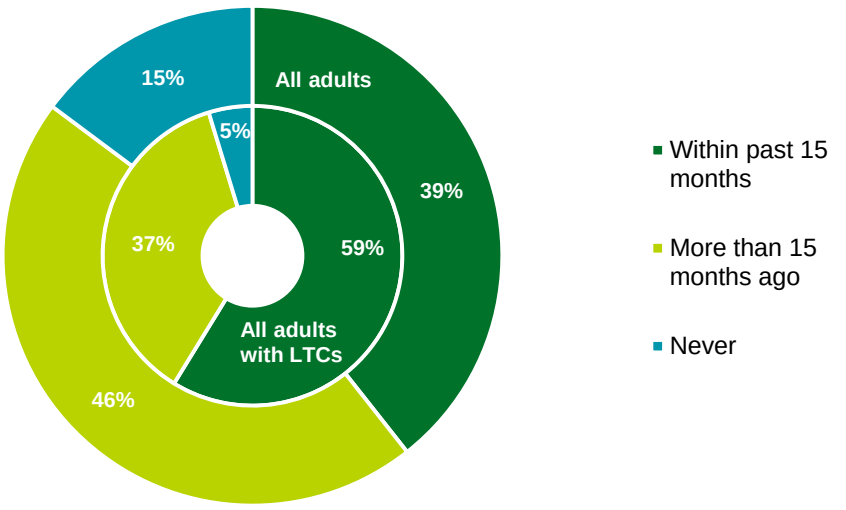


Source: Camden's GP PH dataset, 2012

- People aged 35 to 39 are least likely to have had BMI recorded in the past 15 months (about 30%). From age 40-44, recording in the past 15 months increases steadily for each age group until 70-74, where it peaks (54%).
- Recording levels in the past 15 months decrease steadily in persons from aged less than 25 to 35-39, and then decreases are noticed again in age groups 75-79 to 85+.

BMI recording by diagnosis of long term condition

Recording of BMI in adults with one or more long term conditions compared to all persons, Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

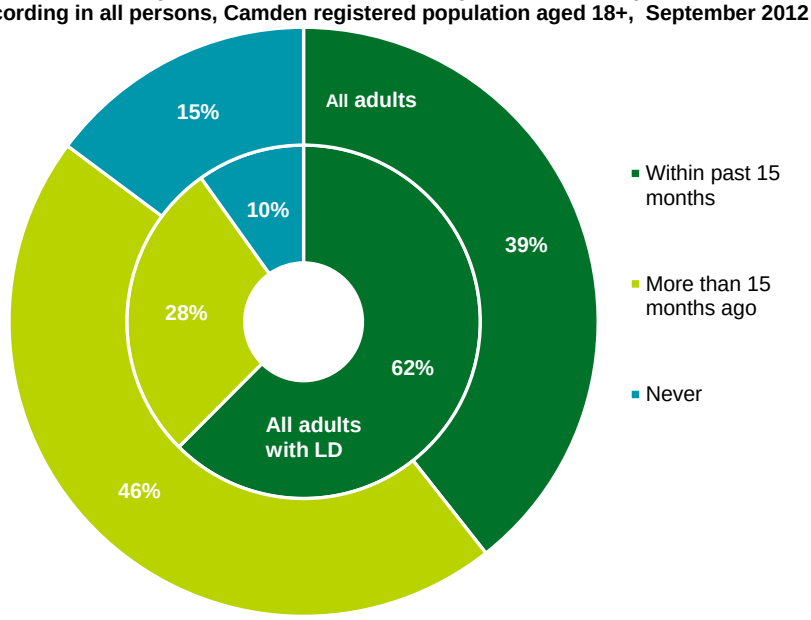
- Recording of BMI is higher in people with one or more long term conditions (LTC) compared to all registered people (95% vs. 85%).
- Recording in the past 15 months is also higher in people with one or more LTC (59% compared to 39%).

For the purposes of this profile, '**long term condition'** (LTC) includes the following illnesses:

- Coronary heart disease (CHD) & Myocardial Infarction (MI)
- Stroke & Transitory Ischemic Attack (TIA)
- Heart failure
- Atrial fibrillation
- Hypertension
- Cancer (excluding skin cancer)
- Diabetes
- Serious mental illness
- Chronic depression
- Dementia
- Chronic Obstructive Pulmonary Disease
- Chronic Kidney Disease
- Chronic Liver Disease

BMI recording by diagnosis of learning disability

Recording of BMI in adults with learning disabilities compared to recording in all persons, Camden registered population aged 18+, September 2012

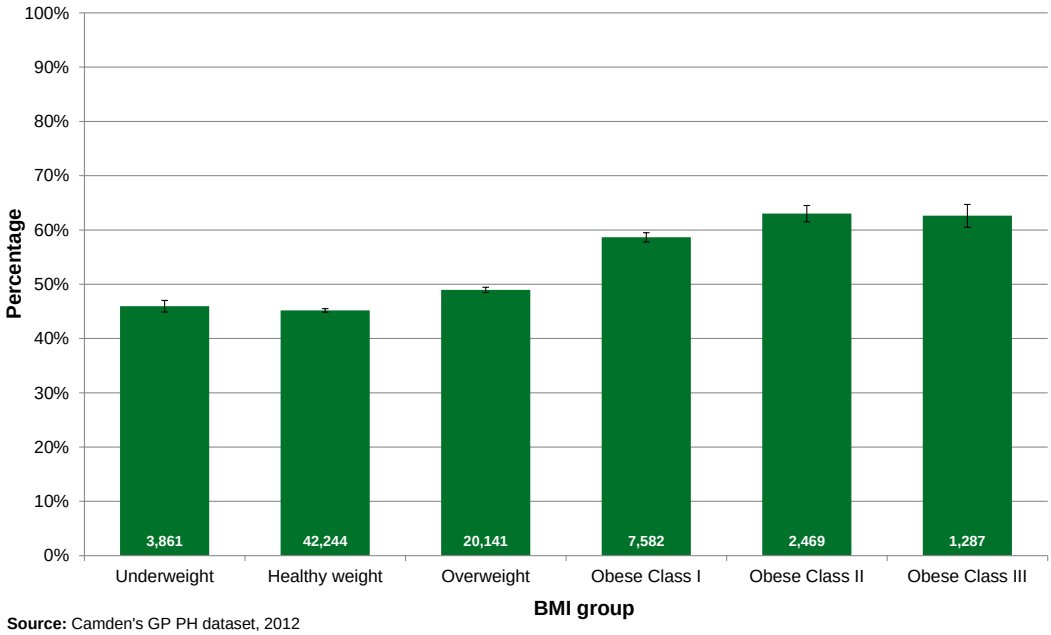


- Recording of BMI is higher among people diagnosed with a learning disability compared with all registered people (90% vs. 85%).
- Recording in the past 15 months is also higher amongst adults with learning disabilities (62%), compared to all registered people (39%).
- Levels of never having a BMI recorded are higher in the total registered population.

Source: Camden's GP PH dataset, 2012

BMI recording in past 15 months by BMI group

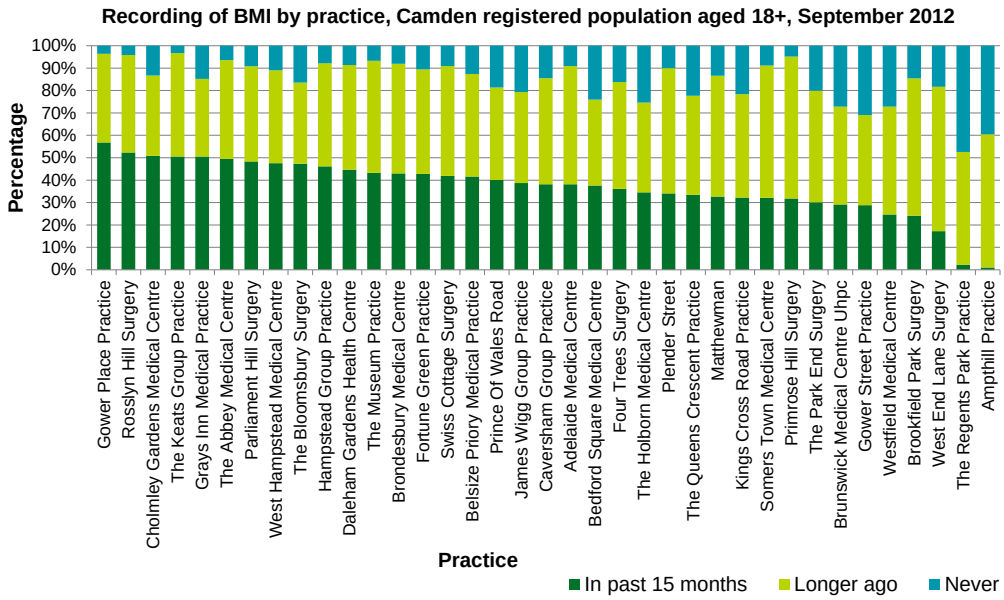
Recording of BMI in the past 15 months, by BMI group, Camden registered population aged 18+ with BMI recorded, September 2012



- Obese (59-63%) and overweight (49%) adults are significantly more likely to have had their BMI recorded in the past 15 months compared to people with a healthy weight (45%).
- About 60% of people recorded as obese have had their BMI measured within the past 15 months.

Source: Camden's GP PH dataset, 2012

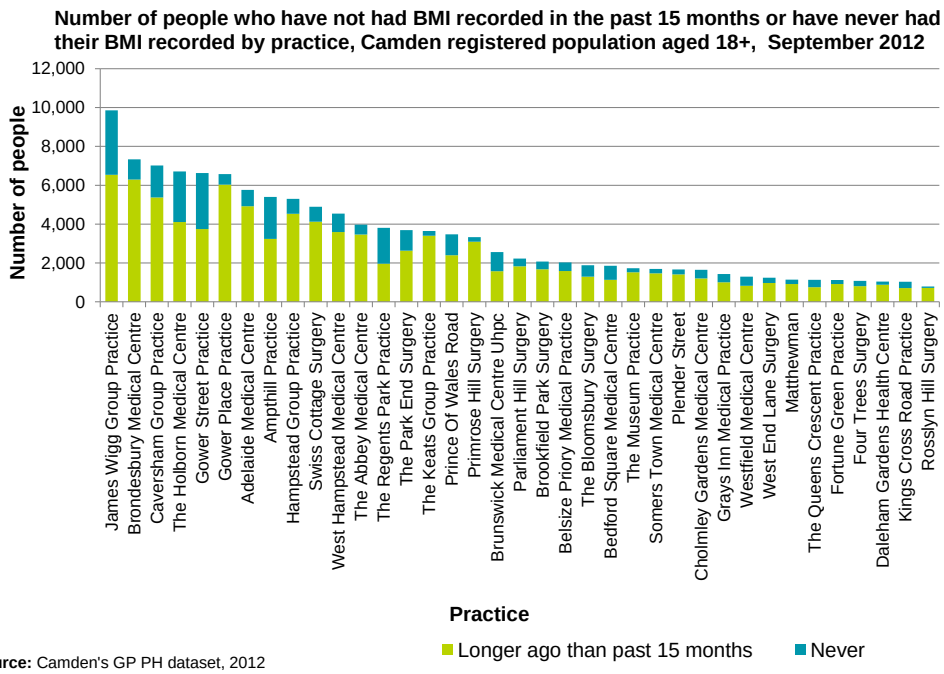
BMI recording by practice



- Large variation exists in levels of BMI recording between Camden practices.
- Recording in the past 15 months ranges from 57% at Gower Place Practice to 17% at West End Lane Surgery.
- BMI ever recorded ranges from 97% to 69% for Camden practices.
- The low prevalence of recording in the past 15 months in The Regents Park Practice and Ampthill Practice is likely to be due to data extraction problems.

Source: Camden's GP PH dataset, 2012

Numbers of BMI recorded by practice



- The number of adults who have not had their BMI recorded ever ranges from around 70 to 3,300 in Camden GP practices.
- This compares to a range of about 700 to around 6,550 who have not had their BMI recorded in the past 15 months.

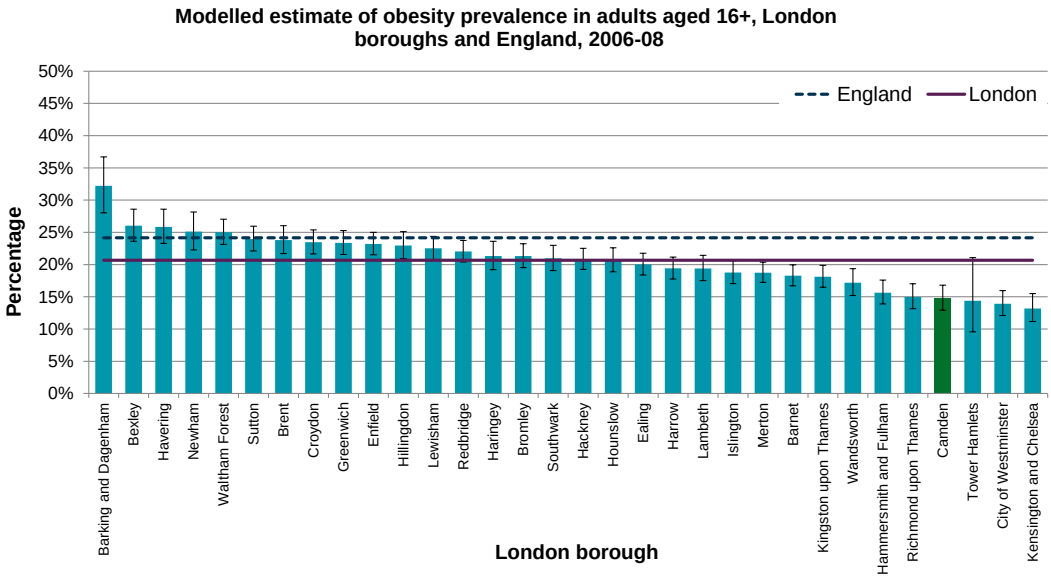
Source: Camden's GP PH dataset, 2012

SECTION 2: OBESITY PREVALENCE BY DEMOGRAPHIC FACTORS

This section looks at the prevalence of obesity and differences by demographic factors such as age, deprivation and ethnicity.

Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

Obesity prevalence – Health survey for England

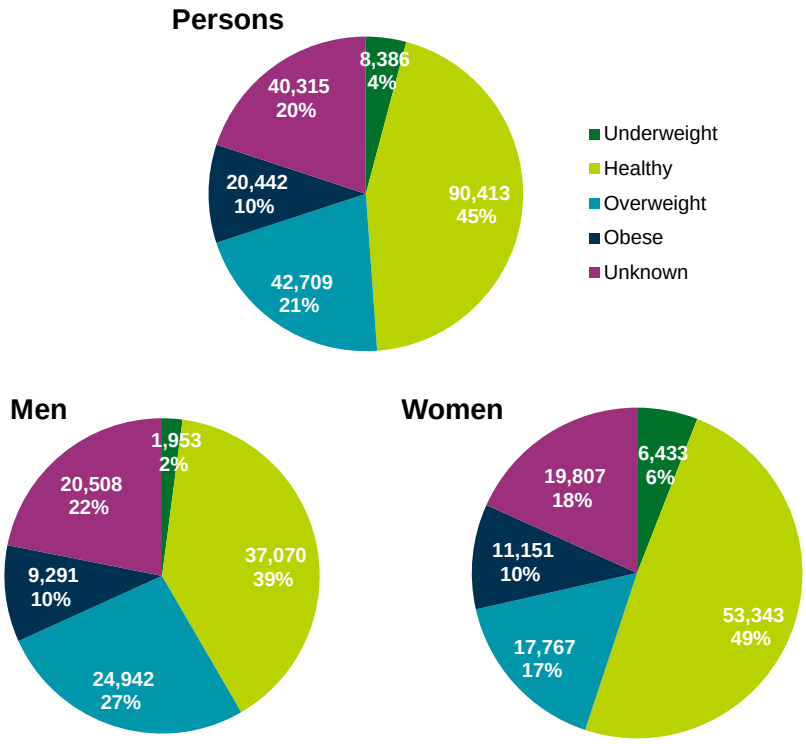


- Modelled prevalence of obesity in people aged 16 and over in Camden is 15%, which is significantly lower than both London (21%) and England (24%).
- According to the GP dataset, obesity prevalence in adults aged 18 and over (who had their BMI recorded) was 10%.
- The difference may be due to the recording of BMI on GP practice registers and/or the modelling technique used by the Public Health Observatories in England, as the difference in age grouping it is unlikely to account for the discrepancy.

Source: Health profiles for England, 2011. Original data from HSfE, analysed by the NatCen and the Public Health Observatories in England.

BMI group

BMI class by sex, Camden registered population aged 18+, September 2012

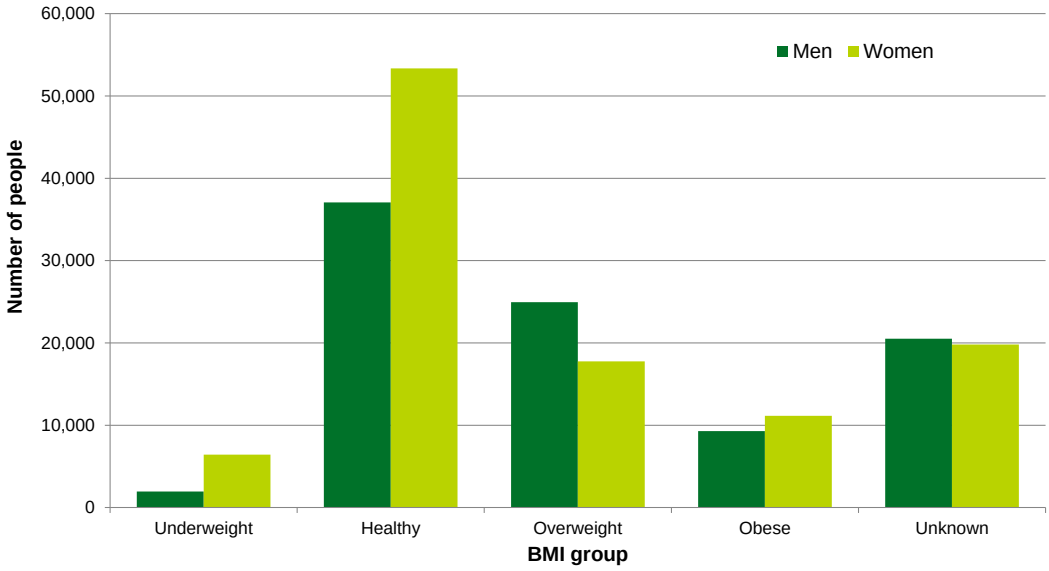


Source: Camden's GP PH dataset, 2012

- Over 42,700 adults are classified as overweight in Camden. Around 20,400 more are obese, meaning 31% (about 63,100) are obese/overweight.
- There is a higher proportion of overweight men (27%) compared to women (17%).
- There is a higher proportion of women classed as underweight than men (6% compared to 2%).
- However, there is a larger proportion of men (22%) compared to women (18%) whose BMI is unknown. This may mean that some of the ranges in BMI are over or under estimated.

Number of people by BMI group and sex

Number of people by BMI group and sex, Camden registered population aged 18+, September 2012

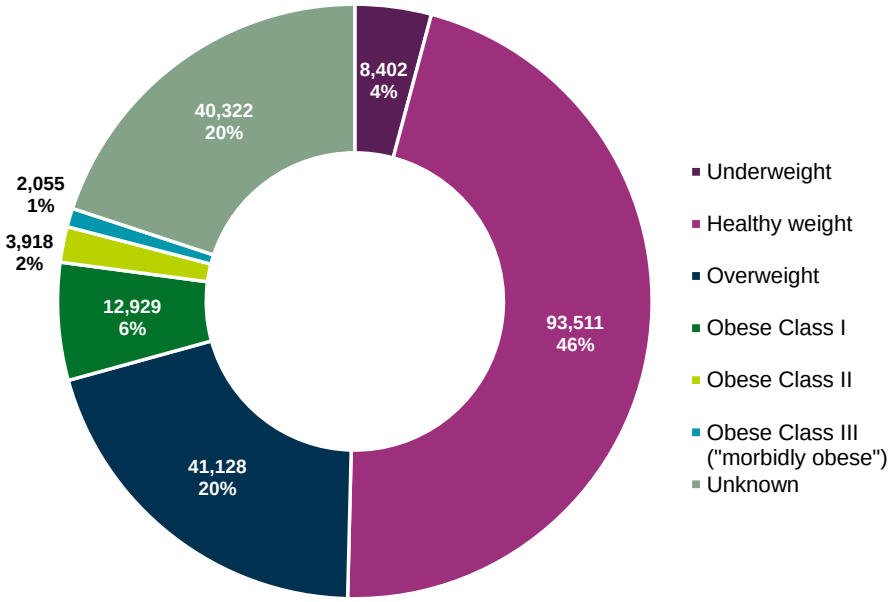


Source: Camden's GP PH dataset, 2012

- There are nearly 25,000 overweight men and 18,000 overweight women in Camden.
- There are approximately 9,000 men and 11,000 women who are obese (based on ethnicity-specific cut offs for BMI class).

Detailed BMI groups

Percentage of people by BMI class, Camden's registered population aged 18+, September 2012

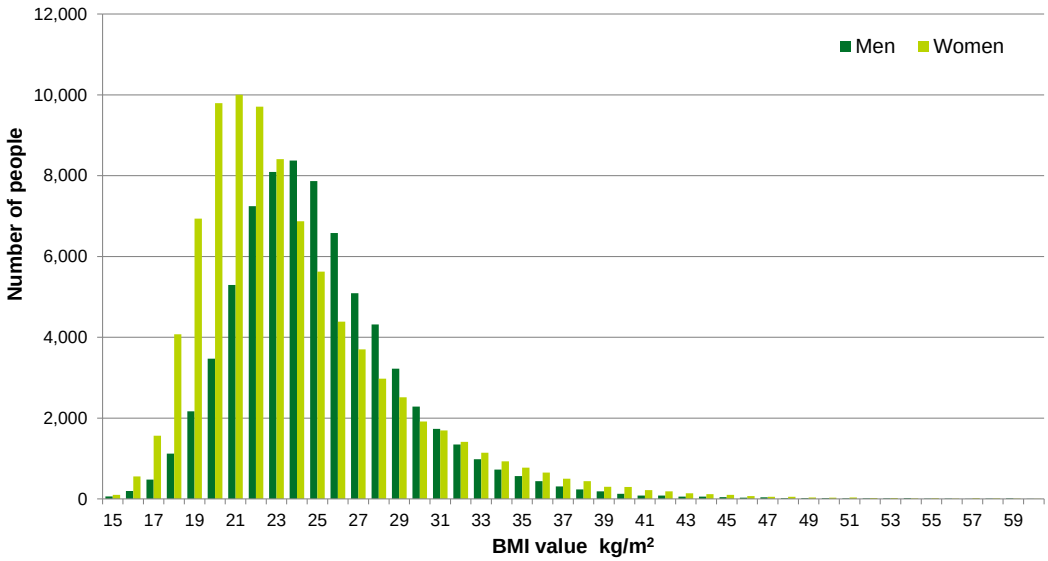


Source: Camden's GP PH dataset, 2012

- Using detailed BMI groupings, 20% of Camden's registered population are recorded as being overweight and 9% are obese (class I/II/III).
- This means that about 19,000 adults are obese (based on standard cut offs for BMI class) and almost 2,100 of these are morbidly obese (class III obesity).

Distribution of BMI

BMI distribution by sex, Camden registered population aged 18+, September 2012

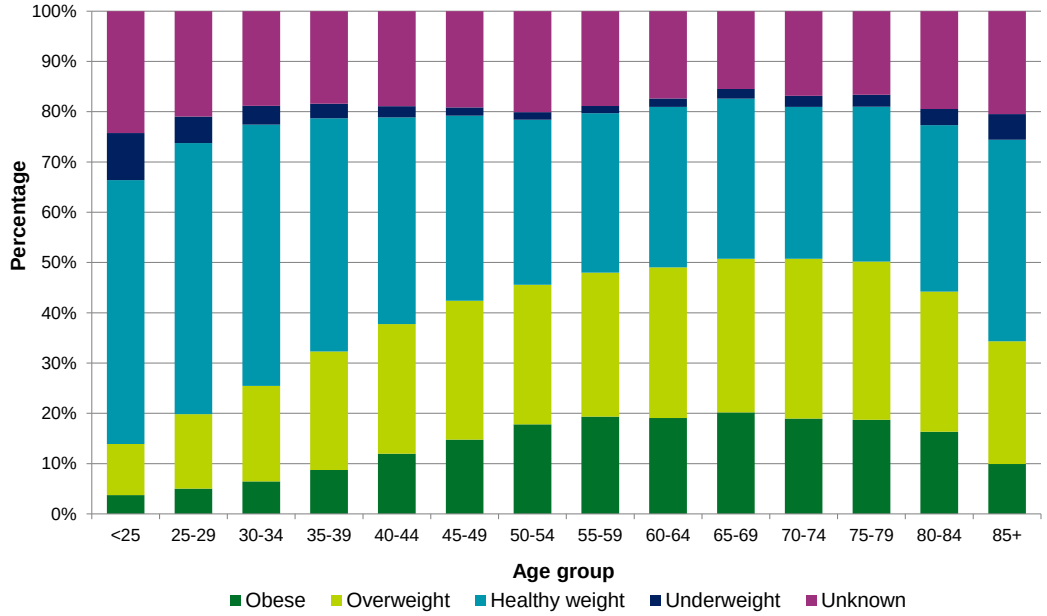


Note: Persons with an unfeasible BMI reading have been excluded from this analysis.
Source: Camden's GP PH dataset, 2012

- The average BMI value is 24 kg/m^2 for women and 25 kg/m^2 for men. This means that the average Camden man is overweight and the average woman is in the upper range of healthy weight.
- More women have a BMI less than 20 kg/m^2 compared to men.
- More men have a BMI more than 23 kg/m^2 compared to women.

BMI group by age - persons

Percentage of people by BMI group and age group, Camden registered population aged 18+, September 2012

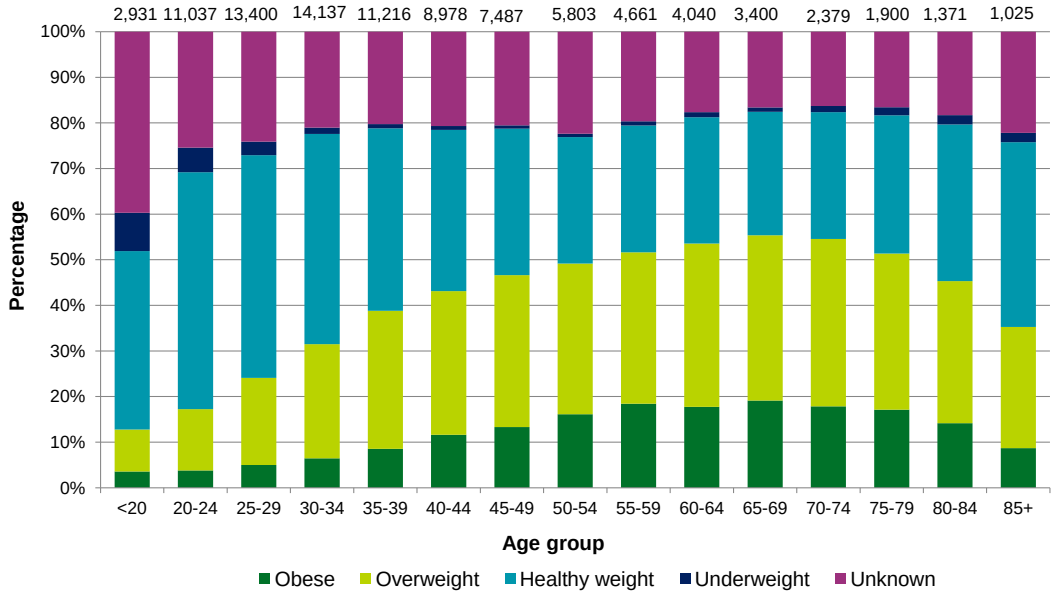


Source: Camden's GP PH dataset, 2012

- Obesity and overweight prevalence is higher in older age groups.
- Prevalence of people that are obese or overweight tends to increase steadily from 25 years until it reaches the peak at age group 65-79. A slight decrease begins after age group 65-79.
- The low levels of obesity and overweight people in older age groups (80+) may be attributed to the loss of muscle mass or early death in people who are obese or overweight.
- The current lack of longitudinal data means it is not possible to draw conclusions about progression from healthy weight to overweight and obese.

BMI group by age – men

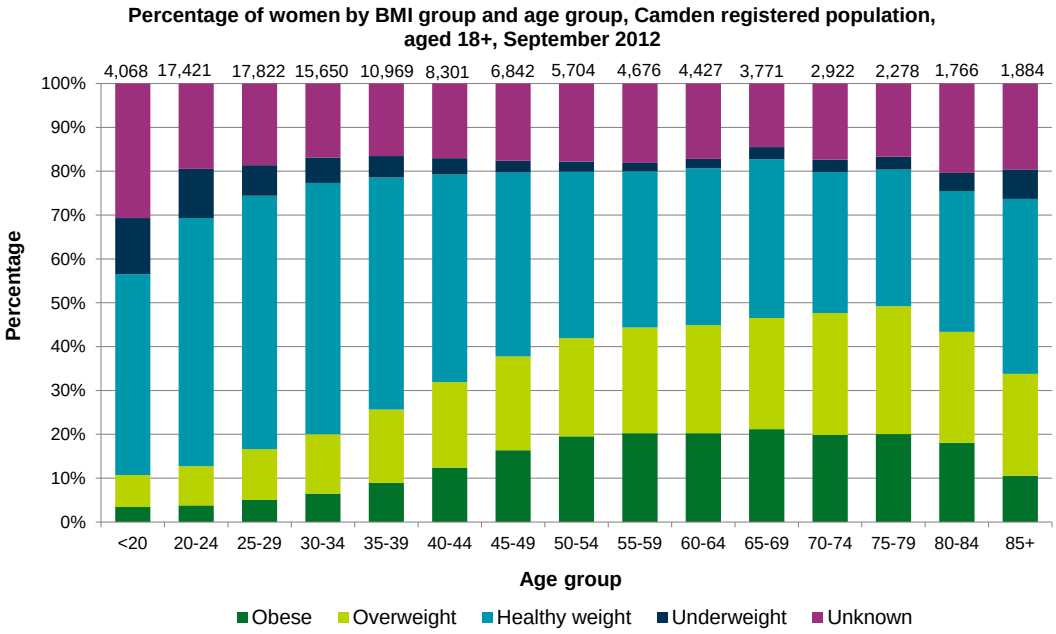
Percentage of men by BMI group and age group, Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

- In men, obesity levels increase steadily from age 20-24 (4%) up to age 65-69 (19%).
- This pattern is also evident in overweight men. The percentage of men that are overweight increases from 9% in those aged <20 to 37% in men aged 70-74.
- Overall, between the ages 55-79, approximately half of men (51%-55%) are overweight or obese.

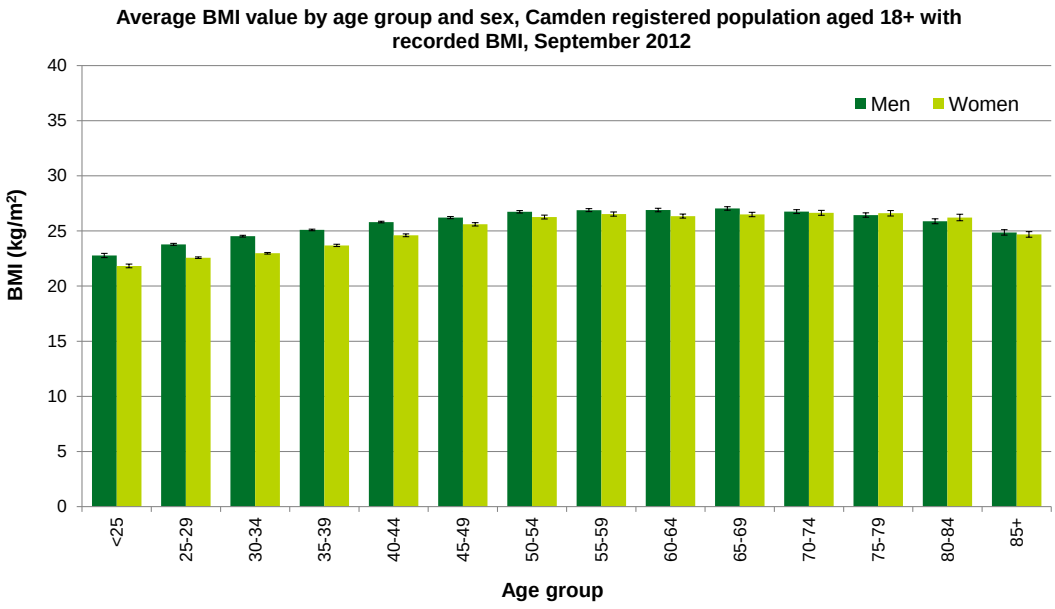
BMI group by age – women



- In women, obesity levels increase steadily with age, from age <20 (3%) up to age 65-69 (21%).
- This pattern is also evident in overweight women although the rise continues until 75-79 (29%).
- Overall, between the ages 50-84, the proportion of overweight/obese women is highest (ranging from 42% to 49%).

Source: Camden's GP PH dataset, 2012

Average BMI by age



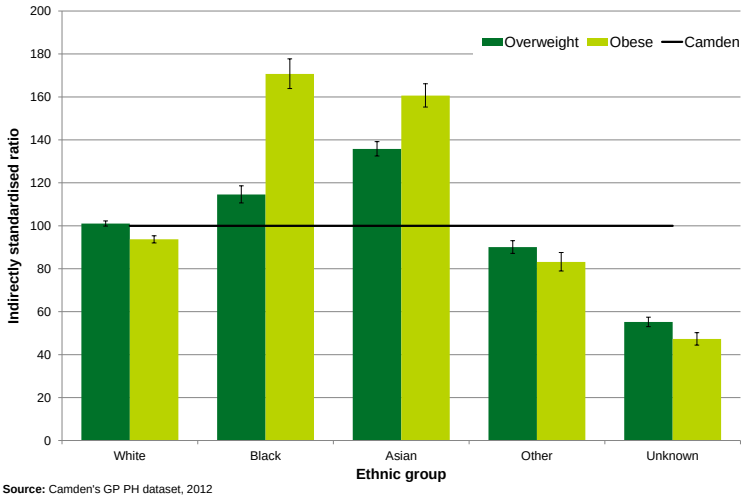
- The average BMI by age group ranges from 22-27 kg/m^2 for men and women.
- Men have a higher BMI than women in the age groups under 70. There is no significant difference between men and women in ages 70+.
- On average men under 34 and women under 44 have an average BMI which falls in the healthy weight range.
- Average BMI is highest in men aged 65-69 (27 kg/m^2) and in women aged 70-79 (27 kg/m^2).

Note: Persons with unfeasible BMI readings have been excluded from the analysis.

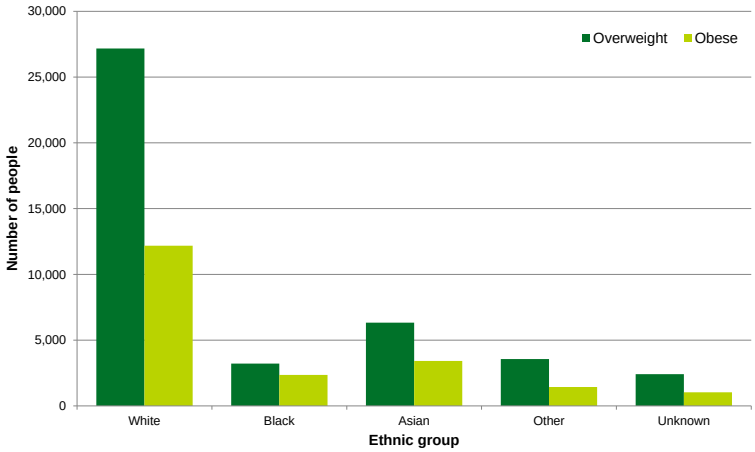
Source: Camden's GP PH dataset, 2012

BMI by ethnic group

Indirectly standardised ratio and number of obese and overweight people by ethnic group, Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

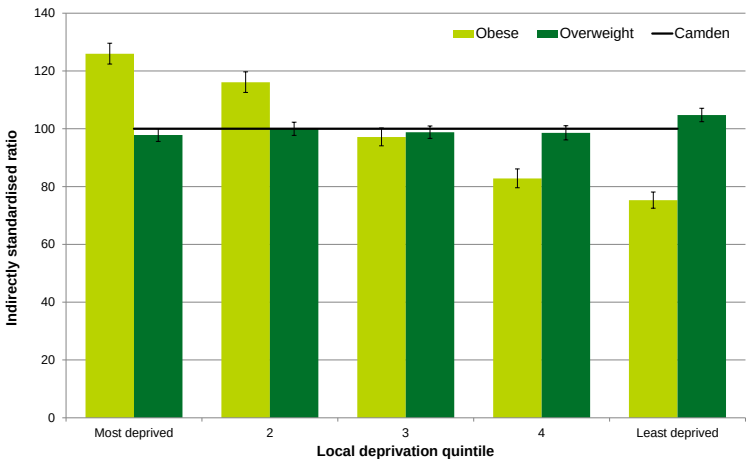


Source: Camden's GP PH dataset, 2012

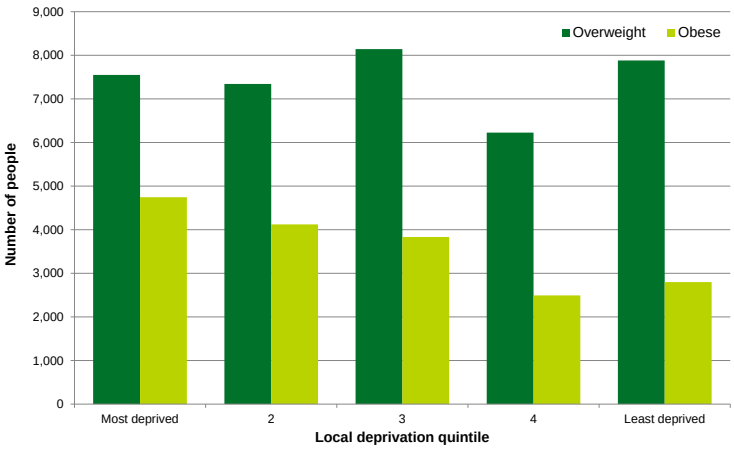
- Black people are 71% more likely to be obese and 15% more likely to be overweight, compared to the Camden average and adjusted for age.
- Asian people are 61% more likely to be obese and 36% more likely to be overweight than the Camden average.
- People with ethnicity recorded as other or unknown are significantly less likely to be either obese or overweight.

BMI by local deprivation quintile

Indirectly standardised ratio and number of obese and overweight people by local deprivation quintile, Camden registered and resident population aged 18+, September 2012



Note: 8,000 people recorded as obese/overweight that are living outside the borough are not included in this analysis.
Source: Camden's GP PH dataset, 2012

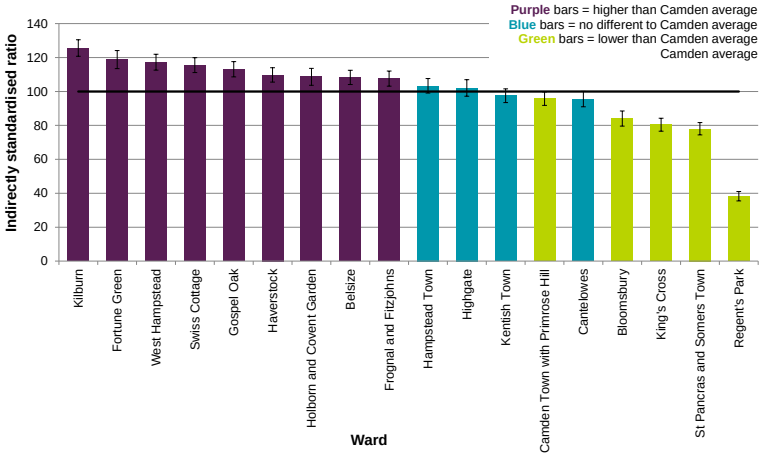


Note: 8,000 people recorded as obese/overweight that are living outside of borough are not included in the analysis.
Source: Camden's GP PH dataset, 2012

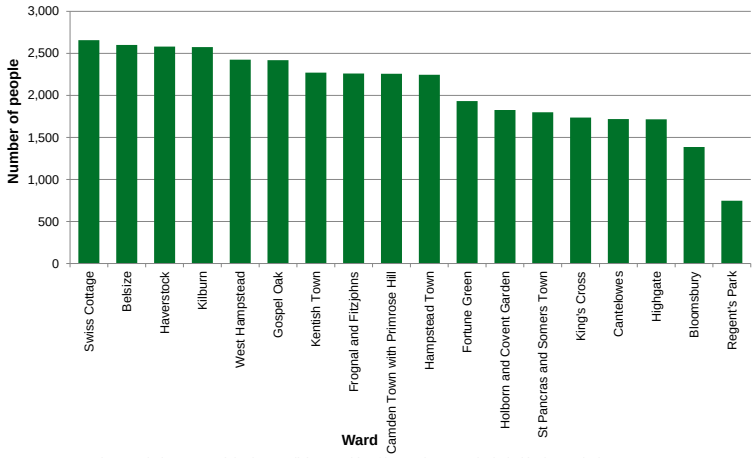
- Adults living in the most deprived area of the borough are 26% more likely to be obese compared to the Camden average.
- The two most deprived quintiles have the highest numbers of obese people; this compares to the third and least deprived quintiles having the highest number of overweight adults.
- The level of obesity increases with deprivation. In contrast, there is no association between deprivation and overweight.

Overweight by ward

Indirectly standardised ratio and number of overweight people by ward, Camden registered and resident population aged 18+, September 2012



Note: 5,557 people recorded as overweight that are living outside of borough are not included in the analysis
Source: Camden's GP PH dataset, 2012

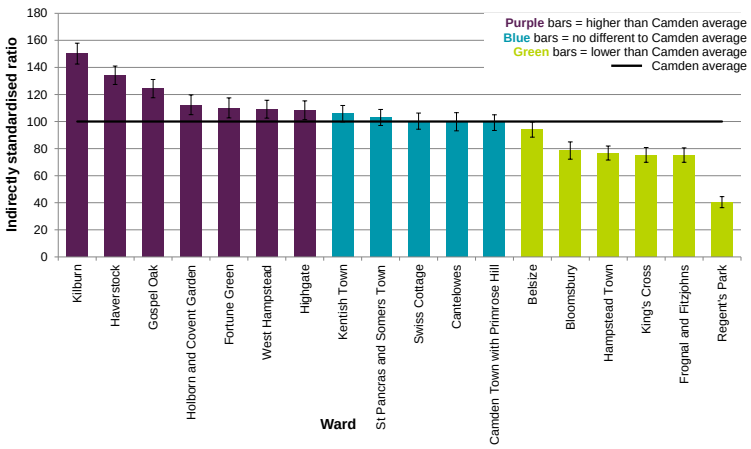


Note: 5,557 people recorded as overweight that are living outside of borough are not included in the analysis
Source: Camden's GP PH dataset, 2012

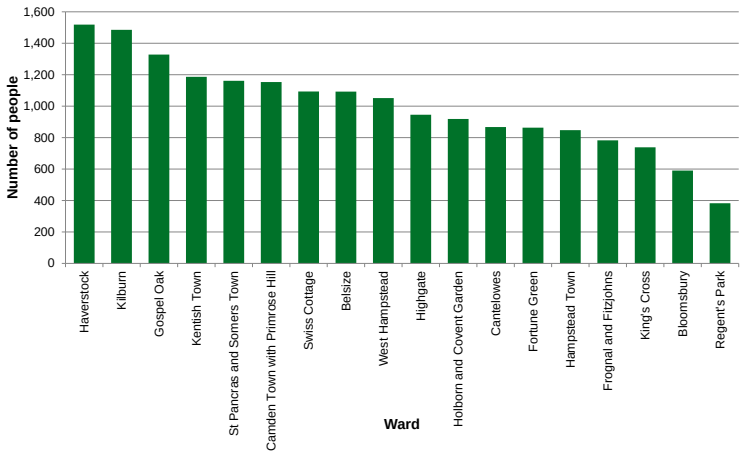
- Nine wards in Camden have a higher than expected level of overweight adults, with adults in Kilburn, Fortune Green and West Hampstead being about 20% more likely to be overweight compared to the Camden average, taking age into account. Five wards have a lower than average level of overweight adults.
- The wards with the highest number of overweight people are Swiss Cottage, Belsize, Haverstock and Kilburn.

Obesity by ward

Indirectly standardised ratio and number of obese people by ward, Camden registered and resident population aged 18+, September 2012



Note: 2,443 people recorded as obese that are living outside of the borough are not included in this analysis.
Source: Camden's GP PH dataset, 2012

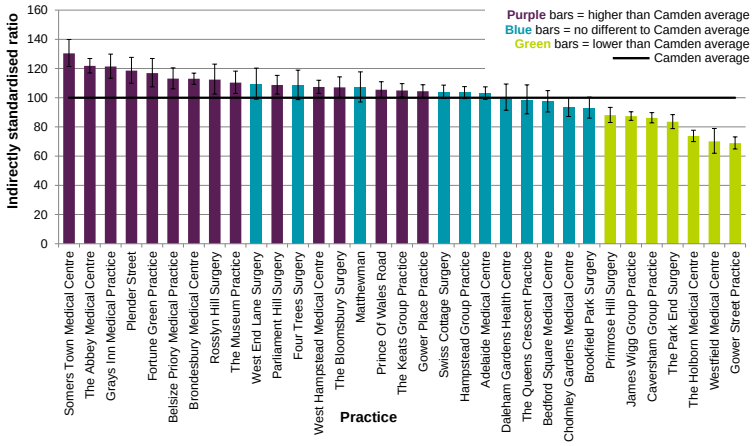


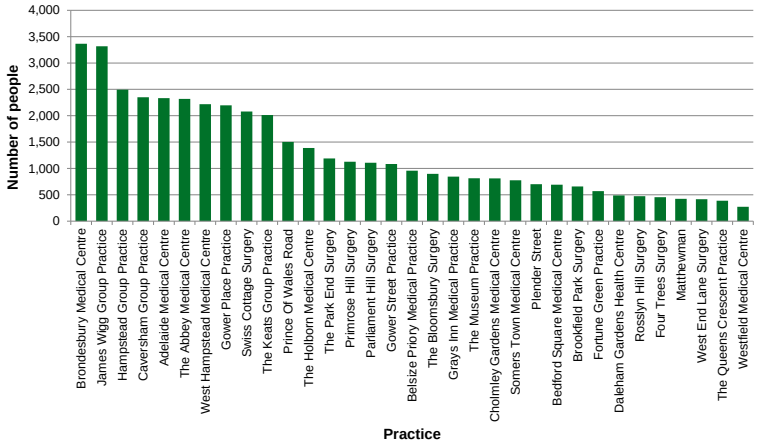
Note: 2,443 people recorded as obese that are not living in this borough are not included in the analysis.
Source: Camden's GP PH dataset, 2012

- Seven wards in Camden have a higher than average level of obese adults, with adults in Kilburn being 50% more likely to be obese. Six wards have significantly lower than average level of obesity, with adults in Regents Park being 60% less likely to be obese.
- The number of obese people in Camden wards is highest in Haverstock and Kilburn (both about 1,500).
- The wards with the highest levels of obesity are to some extent similar to the wards with the highest levels of overweight.

Overweight by GP practice

Indirectly standardised ratio and number of overweight people by GP practice, Camden registered population aged 18+, September 2012





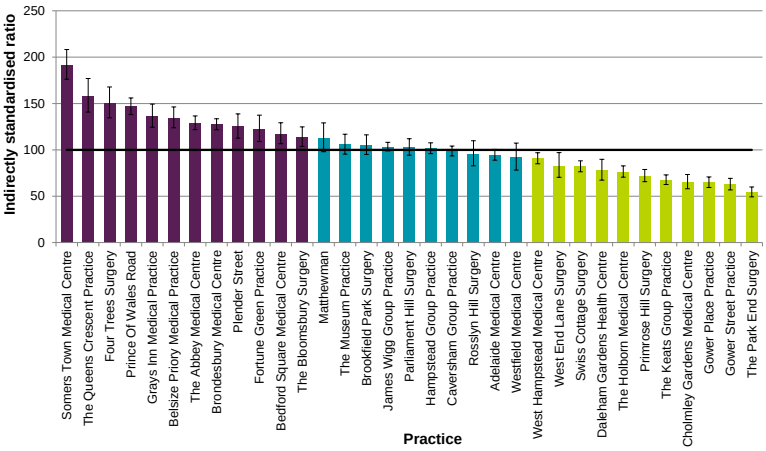
Note: Four practices with no record of BMI status are not included. **Source:** Camden's GP PH dataset, 2012

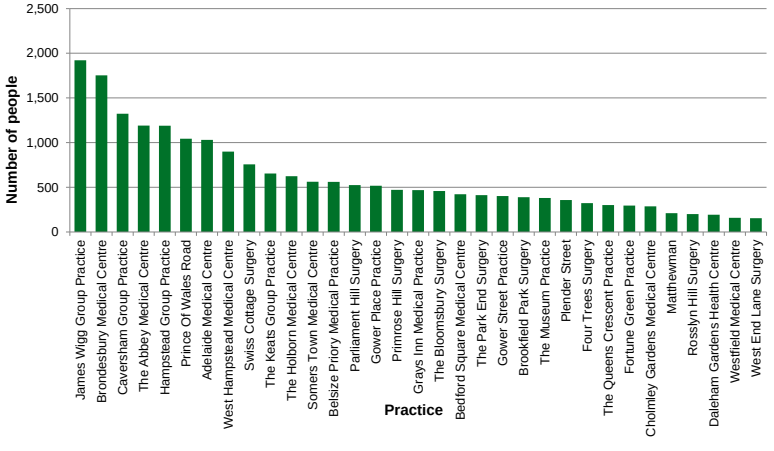
Note: Four practices with no record of BMI status are not included. **Source:** Camden's GP PH dataset, 2012

- Fifteen GP practices have a significantly higher level of overweight adults than the Camden average and seven practices have a significantly lower level, adjusted for age.
- The number of overweight adults in Camden practices ranges from around 3,400 to 270.
- Brondesbury Medical Centre and James Wigg Group Practice have a notably higher number of people recorded as overweight compared to other Camden GP practices (about 3,300 - 3,400 people).

Obesity by GP practice

Indirectly standardised ratio and number of obese people by GP practice, Camden registered population aged 18+, September 2012





Note: Four practices with no record of BMI status are not included in the graph. **Source:** Camden's GP PH dataset, 2012

Note: Four practices with no record of BMI status are not included in the graph. **Source:** Camden's GP PH dataset, 2012

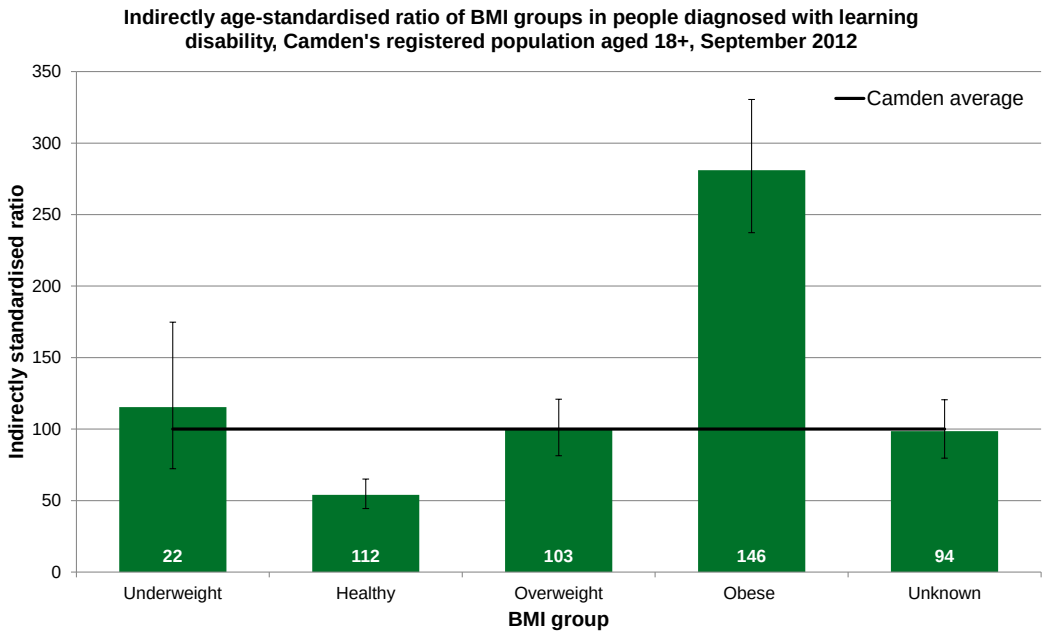
- Twelve Camden GP practices have a significantly higher level of obese adults, compared to the Camden average, whereas eleven have a significantly lower level.
- The number of obese adults ranges from just over 1,900 to around 160.
- Similar to overweight, James Wigg Group Practice and Brondesbury Medical Centre have the highest numbers of obese people (about 1,800 -1,900 people).

SECTION 3: OBESITY IN SPECIAL POPULATIONS

This section looks at obesity in adults with learning disabilities

Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

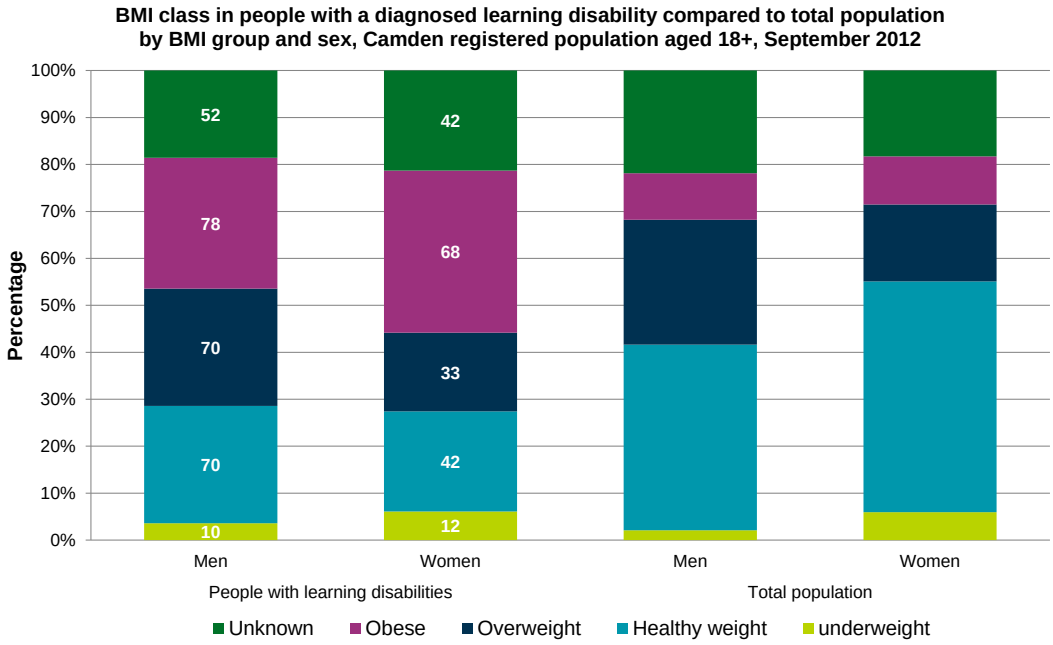
BMI in people with a learning disability



- Overall, almost 400 individuals aged 18+ diagnosed with a learning disability had a record of BMI (80%).
- Standardising for age, people with a learning disability are significantly less likely to have a healthy weight compared to all adults in Camden.
- People with a learning disability are almost three times more likely to be obese than the Camden average, adjusted for age.

Source: Camden's GP PH dataset, 2012

BMI in people with a learning disability



- Compared to the total population the proportion of men and women who are obese is much higher in adults with a learning disability.
- Around 45% of women in the total population have a healthy weight compared to just 23% in those with learning disabilities.

Source: Camden's GP PH dataset, 2012

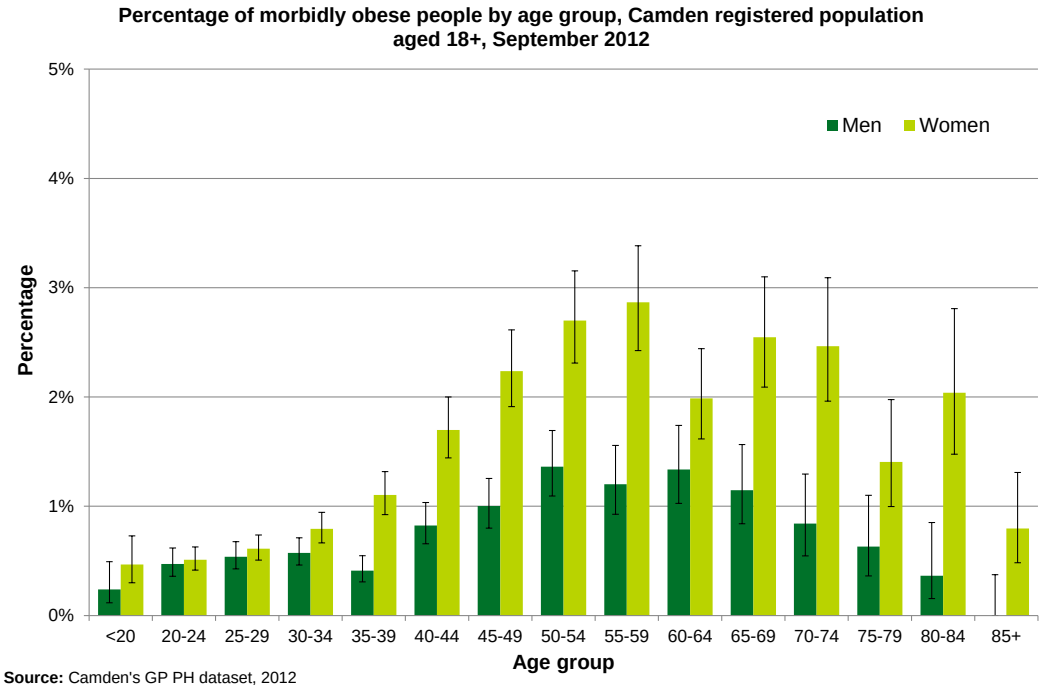
Camden
NHS Camden Clinical Commissioning Group

SECTION 4: MORBID OBESITY

This section looks at morbid obesity i.e. a BMI of greater or equal to 40 kg/m^2 and looks at any demographic differences e.g. ethnicity, deprivation.

Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

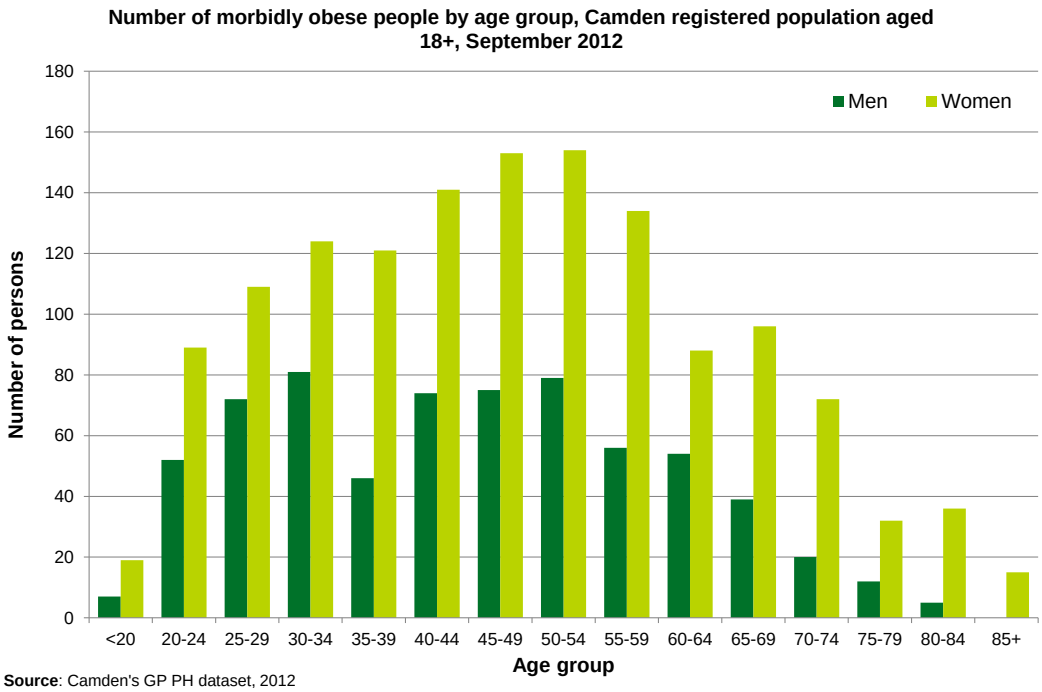
Age specific prevalence of morbid obesity



Source: Camden's GP PH dataset, 2012

- 2,055 adults in Camden have a recorded BMI of greater or equal to 40 kg/m$^{2.}$
- Overall, there are twice the number of women that are morbidly obese (about 1,400 compared to men 700).
- Overall, 1 in 100 people are morbidly obese in Camden's registered population.
- There is no significant difference in the prevalence of morbid obesity between men and women among people aged under 35. Morbid obesity prevalence then increases at a faster rate among women then men until the age of 50-59.

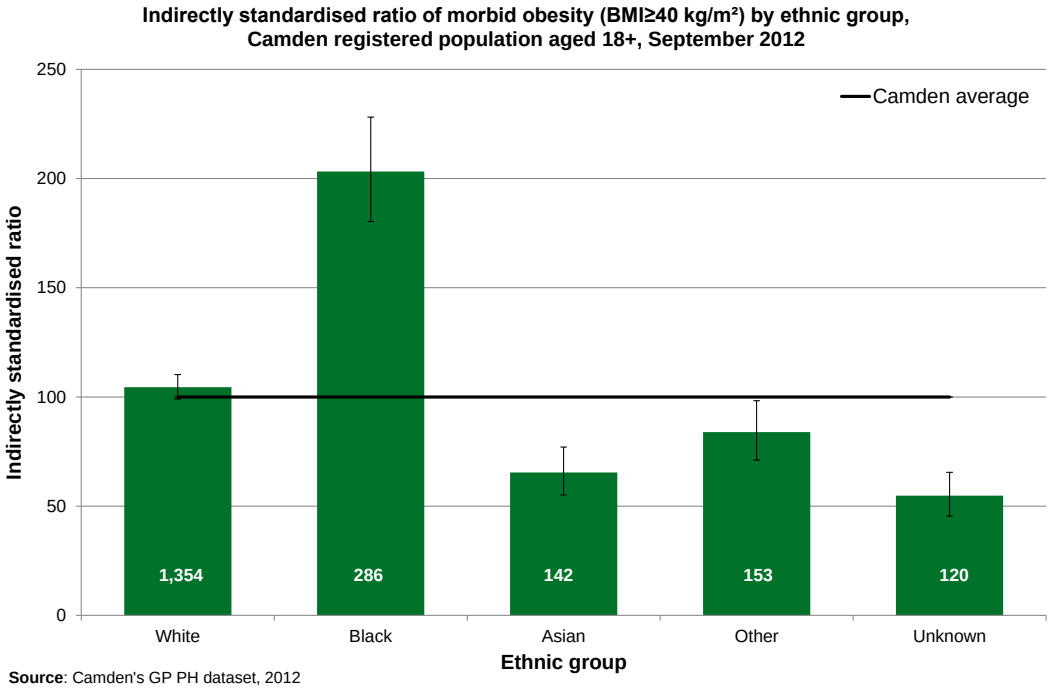
Number of morbidly obese people



Source: Camden's GP PH dataset, 2012

- The number of morbidly obese women tends to increase with age until 45-54, though this pattern is not entirely clear cut. The numbers of women that are morbidly obese then decreases.
- The pattern for men is broadly similar.

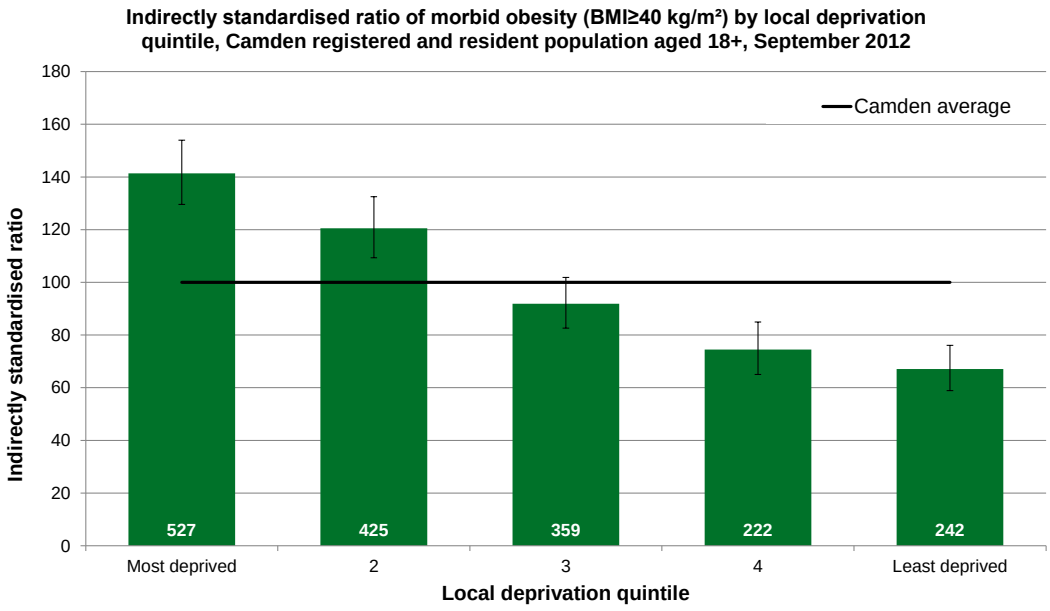
Morbid obesity by ethnic group



Source: Camden's GP PH dataset, 2012

- The level of morbidly obese people is twice as high among Black ethnic groups compared to the Camden average, taking age into account.
- Asian people are significantly less likely to be morbidly obese compared to the Camden average (35% lower).

Morbid obesity by deprivation

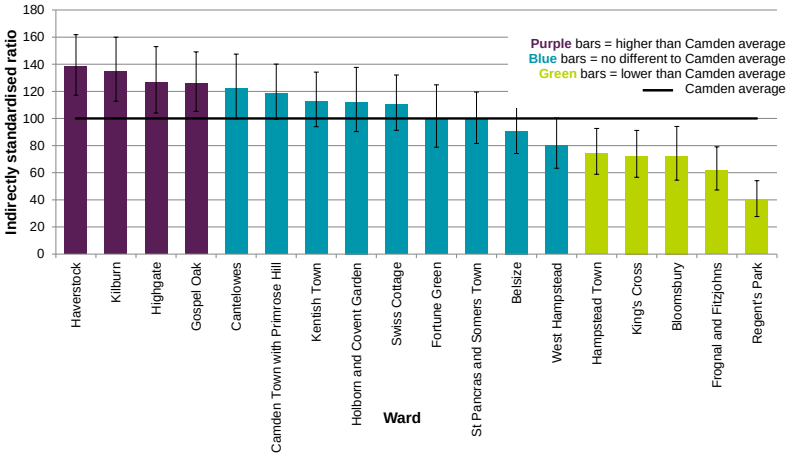


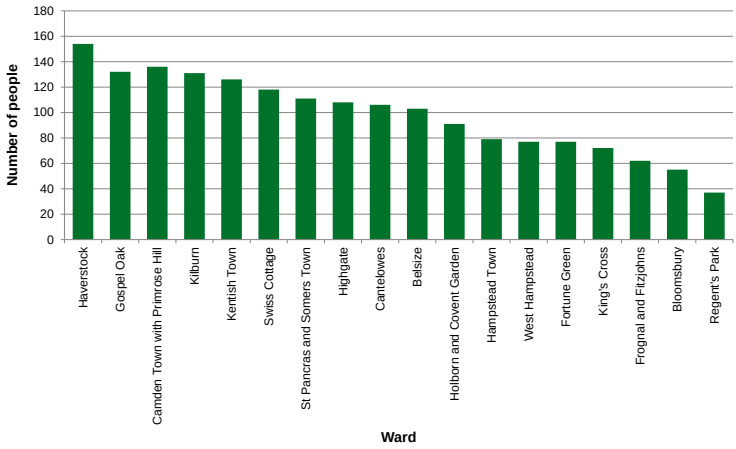
- There is a clear social gradient to morbid obesity prevalence, where adults living in the two most deprived quintiles in Camden are significantly more likely to be morbidly obese, compared to the Camden average, adjusted for age.
- Adults living in the two least deprived quintiles are significantly less likely to be morbidly obese compared to the Camden average.

Note: 280 morbidly obese adults that are living outside the borough are not included in the analysis.
Source: Camden's GP PH dataset, 2012

Morbid obesity by ward

Indirectly standardised ratio and number of morbidly obese adults aged 18+ by ward, Camden registered and resident population aged 18+, September 2012





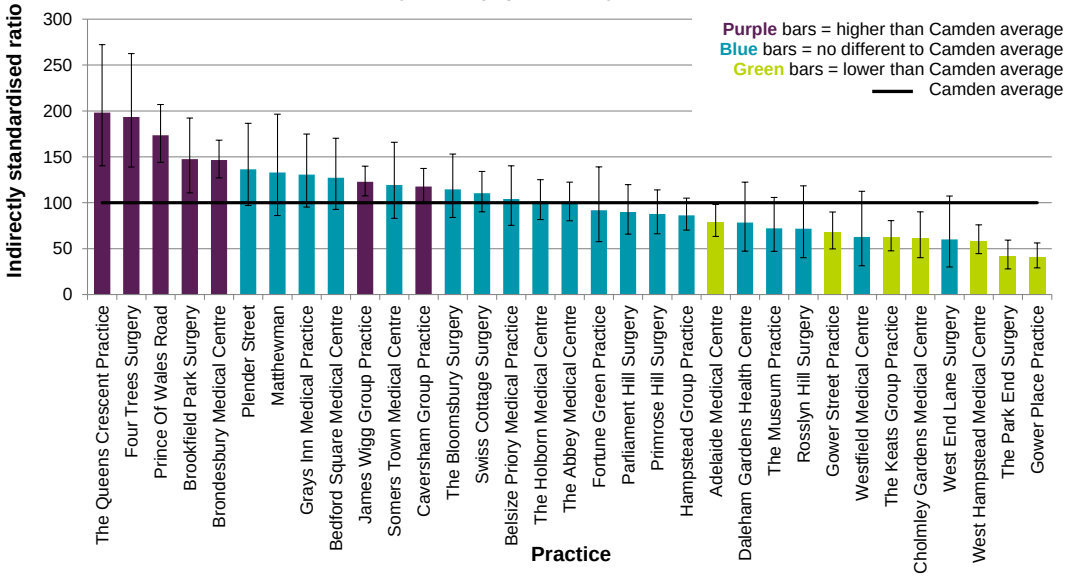
Note: 280 morbidly obese adults living outside the borough are not included in the analysis.
Source: Camden's GP PH dataset, 2012

Note: 280 morbidly obese adults that are living outside the borough are not included in this analysis.
Source: Camden's GP PH dataset, 2012

- Four wards (Haverstock, Kilburn, Highgate and Gospel Oak) have significantly higher levels of morbidly obese adults compared to the Camden average, adjusted for age.
- Five wards have significantly lower levels of morbidly obese adults compared to the Camden average (Hampstead Town, Kings Cross, Bloomsbury, Frognal and Fitzjohns and Regents Park).
- The number of morbidly obese adults ranges from around 150 in Haverstock to 40 in Regent's Park.

Morbid obesity by GP practice

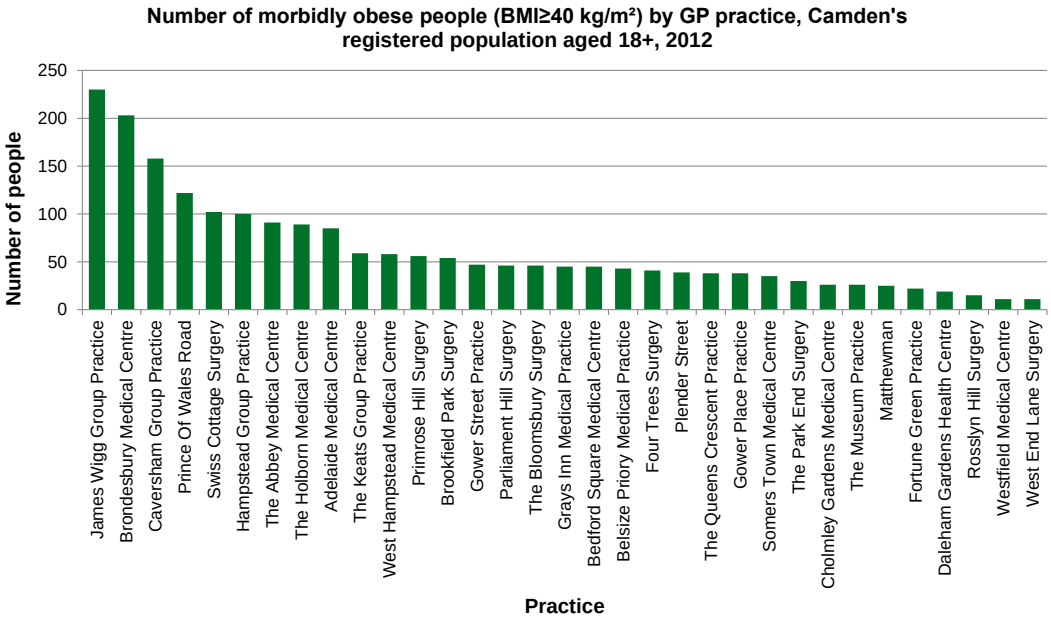
Indirectly standardised ratio of morbid obesity (BMI≥40 kg/m²) by GP practice, Camden's registered population aged 18+, 2012



- Seven GP practices in Camden have higher levels of morbidly obese adults compared to the Camden average, adjusting for age.
- Seven GP practices have lower levels of morbidly obese adults compared to the Camden average.
- Differences could be explained by ethnicity, deprivation and/or BMI recording as age has been taken into account.

Note: Four practices with no record of BMI status are not included. **Source:** Camden's GP PH dataset, 2012

Number of morbidly obese people by GP practice



- Numbers of morbidly obese adults in GP practices range from around 230 at James Wigg Group Practice to 10 at West End Lane Surgery.

Note: Four practices with no record of BMI status are not included. **Source:** Camden's GP PH dataset, 2012

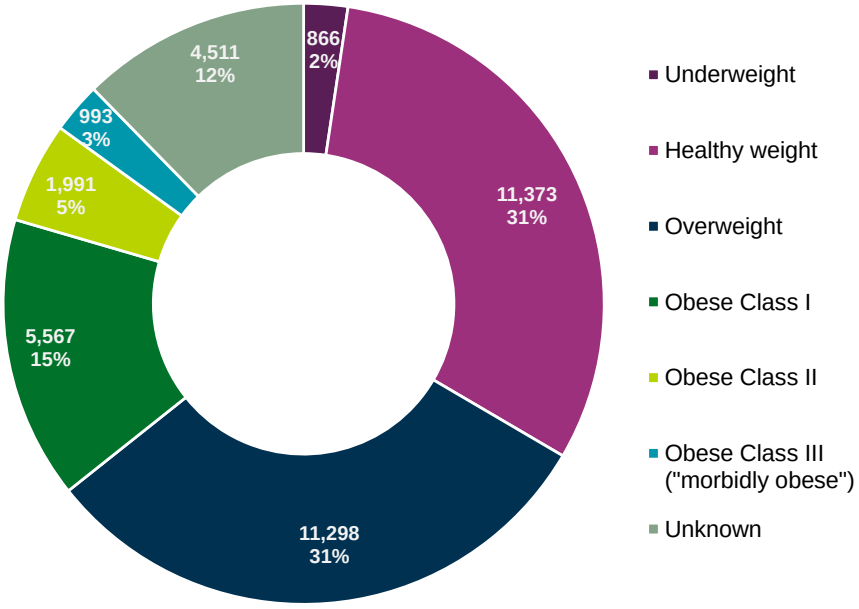
SECTION 5: BURDEN OF ILL HEALTH

This section looks at long term conditions and co-morbidities associated with obesity.

Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

BMI class in people with a long term condition

Latest recorded BMI in people with a diagnosed long term condition, Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

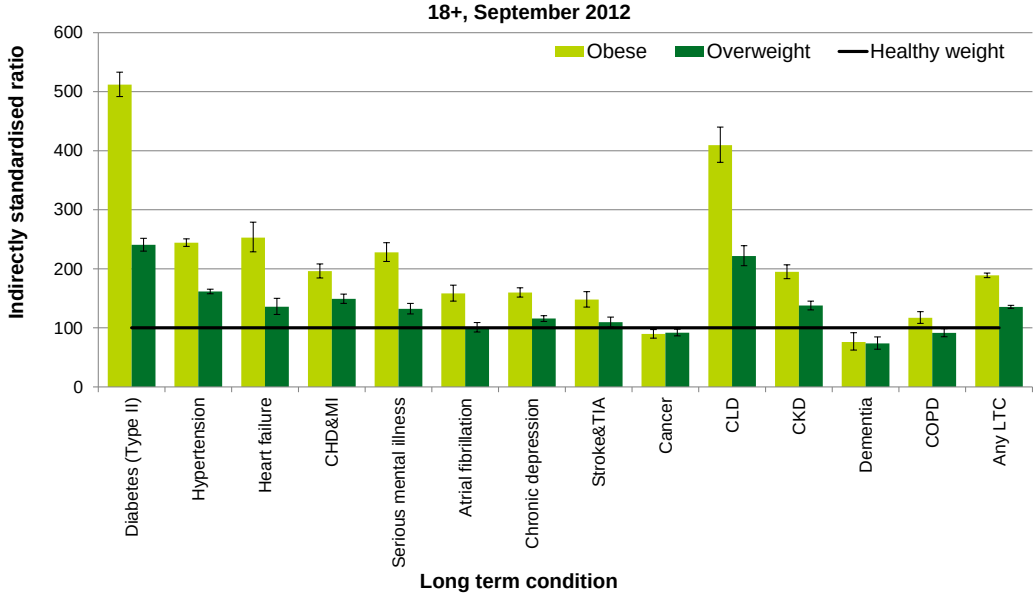
- Nearly one-in-four adults who have a long term condition are obese (class I/II/III) and 31% are overweight.
- This means that around 8,600 adults with a long term condition are obese (class I/II/III) and around 1,000 of these are morbidly obese (class III).
- In comparison 9% are obese (class I/II/III) and 20% are overweight in all Camden's registered population (page 24).

For the purposes of this profile, '**long term condition'** (LTC) includes the following illnesses:

- Coronary heart disease (CHD) & Myocardial Infarction (MI)
- Stroke & Transitory Ischemic Attack (TIA)
- Heart failure
- Atrial fibrillation
- Hypertension
- Cancer (excluding skin cancer)
- Diabetes
- Serious mental illness
- Chronic depression
- Dementia
- Chronic Obstructive Pulmonary Disease
- Chronic Kidney Disease
- Chronic Liver Disease

LTC prevalence by obesity and overweight persons

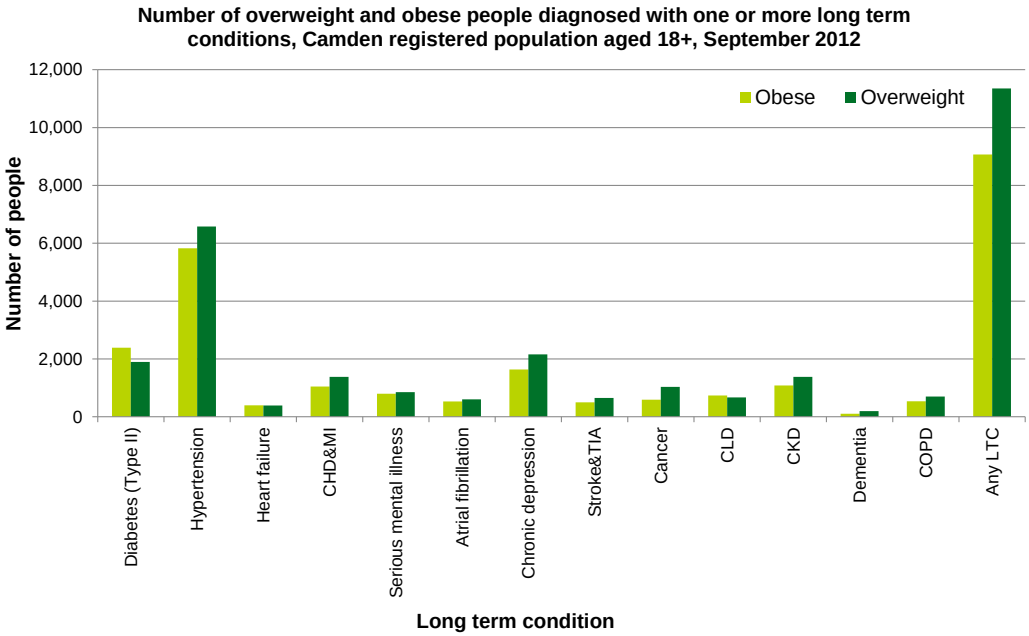
Indirectly standardised ratio by long term condition and obesity and overweight (standardised against persons of healthy weight), Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

- Obese people are around 1.8 times more likely to have one or more long term conditions compared to people with healthy weight.
- Obese people are 5 times more likely to have diabetes, 4 times more likely to have CLD and more than twice as likely to have hypertension, heart failure, CHD/MI or serious mental illness compared to healthy weight adults.
- Overweight people are around twice as likely to have diabetes and CLD.
- It should be noted that while it is clear there is a strong association between being overweight or obese and having a LTC, it is not possible to determine what came first, the LTC or the elevated BMI, that is, which is the cause and effect.

Number of obese and overweight people diagnosed with one or more long term condition

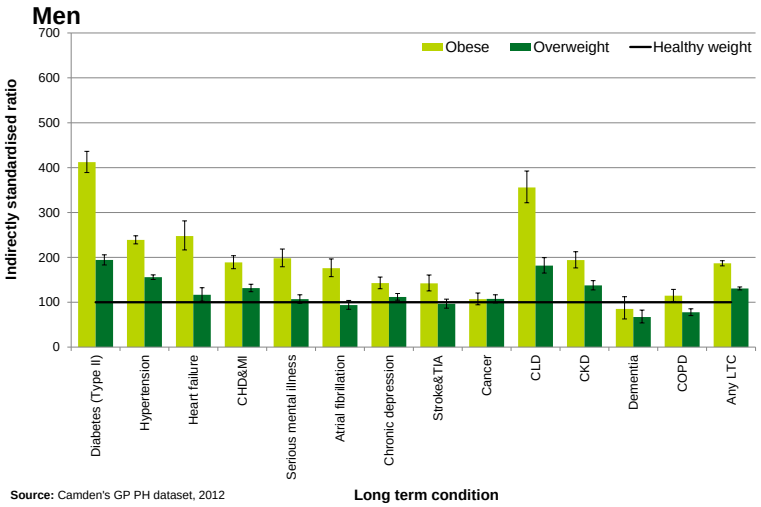


- There are just over 9,000 obese and more than 11,300 overweight adults diagnosed with a long term condition.
- In terms of numbers, the most common long term conditions among people who are obese or overweight are hypertension, diabetes and chronic depression.

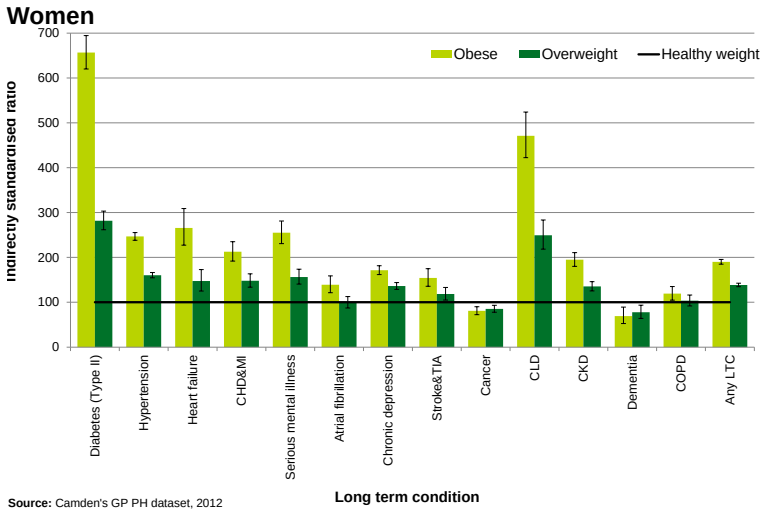
Source: Camden's GP PH dataset, 2012

LTC prevalence by obesity and overweight for men and women

Indirectly standardised ratio by long term condition and obesity and overweight (standardised against men and women of healthy weight, respectively) Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

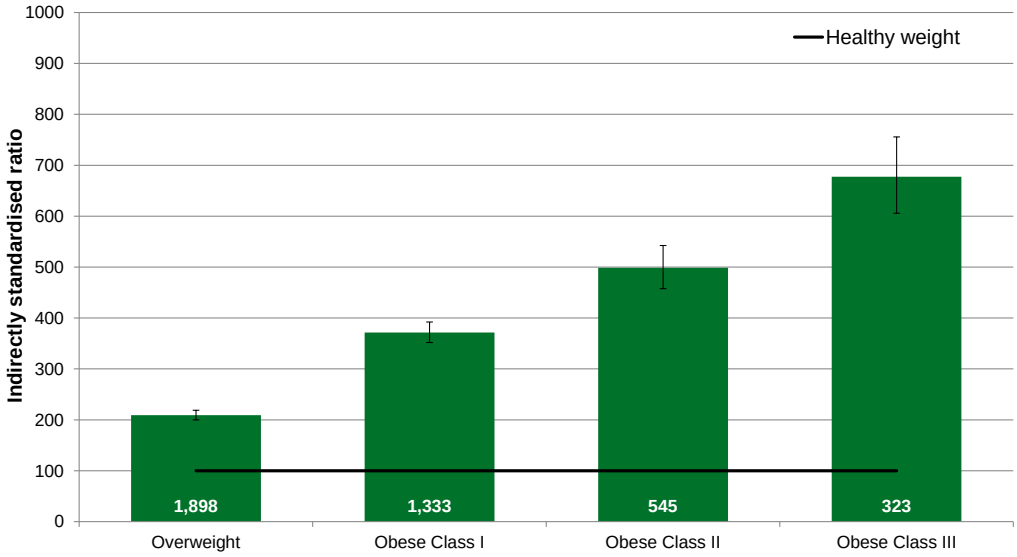


Source: Camden's GP PH dataset, 2012

- Obese men are around 4.1 times more likely than healthy weight men to have diabetes (type II), while obese women are 6.6 times more likely to have diabetes (type II) than healthy weight women.
- Overweight women are 2.8 times more likely to have diabetes (type II) than healthy weight women, while overweight men are 1.9 times more likely to have diabetes (type II) compared to healthy weight men.

Diabetes prevalence by BMI class, persons

Indirectly standardised ratios of diabetes type II prevalence by BMI class, Camden registered population aged 18+, September 2012



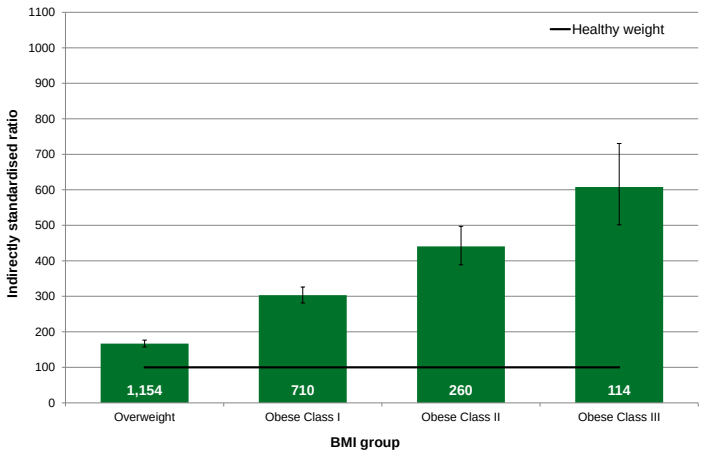
- As BMI increases, the prevalence of diabetes (type II) also increases.
- Morbidly obese adults are more than six times more likely to have diabetes (type II) than healthy weight adults.

Source: Camden's GP PH dataset, 2012

Diabetes prevalence by BMI class, men and women

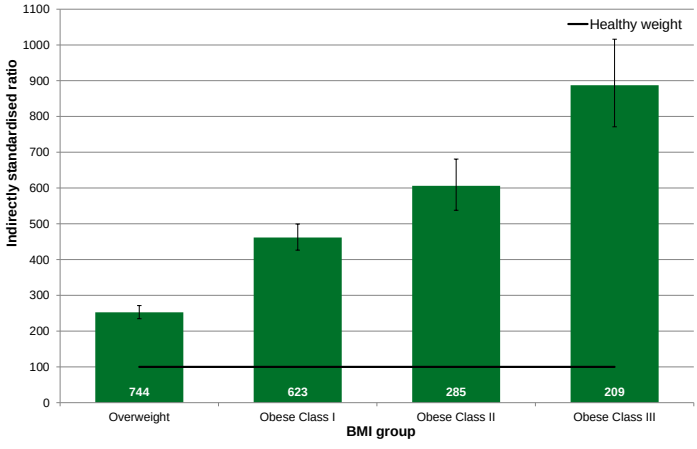
Indirectly standardised ratio by diabetes type II by BMI class (standardised against men and women of healthy weight, respectively) Camden registered population aged 18+, September 2012

Men



Source: Camden's GP PH dataset, 2012

Women

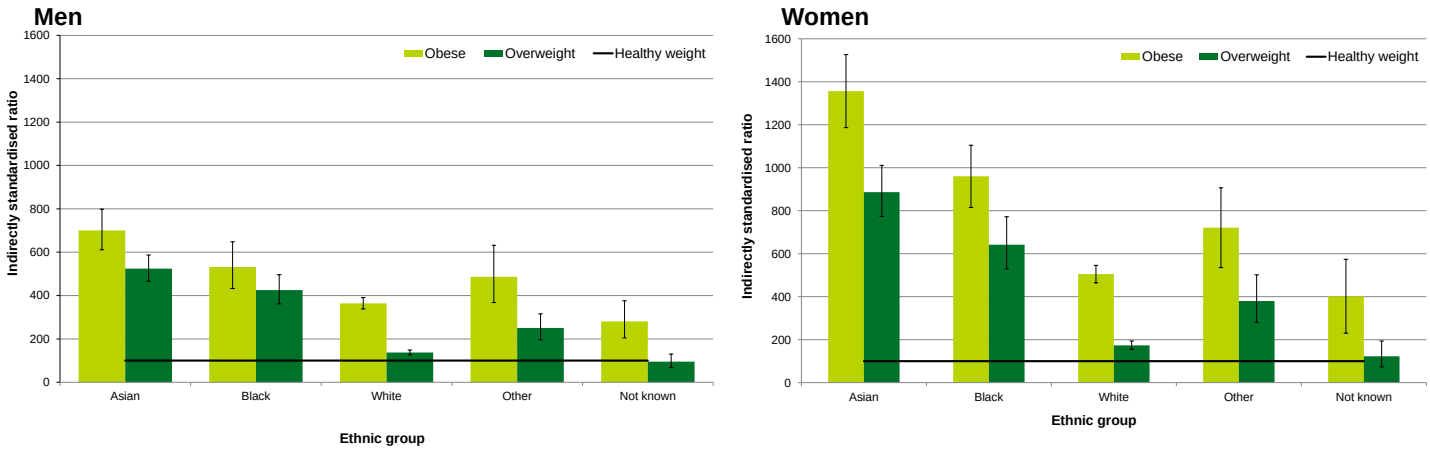


Source: Camdens GP PH dataset, 2012

- Obese men (class I/II/III) are between three and six times more likely to have diabetes (type II) compared to healthy weight men, while overweight men are 1.7 times as likely to have diabetes (type II) compared to healthy weight men.
- Obese women are between 4.6 and 8.9 times more likely than healthy weight women to have diabetes (type II), with overweight women being 2.5 times more likely.

Diabetes prevalence by ethnic group and obesity/overweight

Indirectly standardised ratio of diabetes type II in obese and overweight men and women by ethnic group (standardised against healthy weight) Camden registered population aged 18+, September 2012



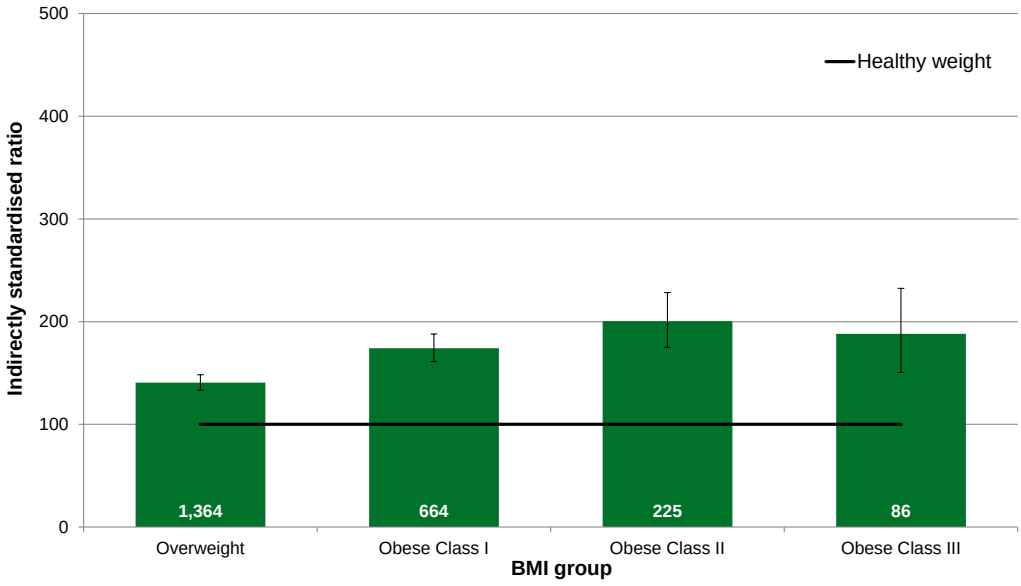
Source: Camden's GP PH dataset, 2012

Source: Camden's GP PH dataset, 2012

- Asian obese women are about 13 times more likely to be diagnosed with diabetes (type II) compared to healthy weight women adjusting for age. The equivalent figure for Asian men is seven times more likely.
- Black obese men are 5.3 times more likely and Black obese women are around 10 times more likely to be diagnosed with diabetes (type II) compared to men/women of healthy weight respectively.

BMI class in people with coronary heart disease/myocardial infarction (CHD/MI)

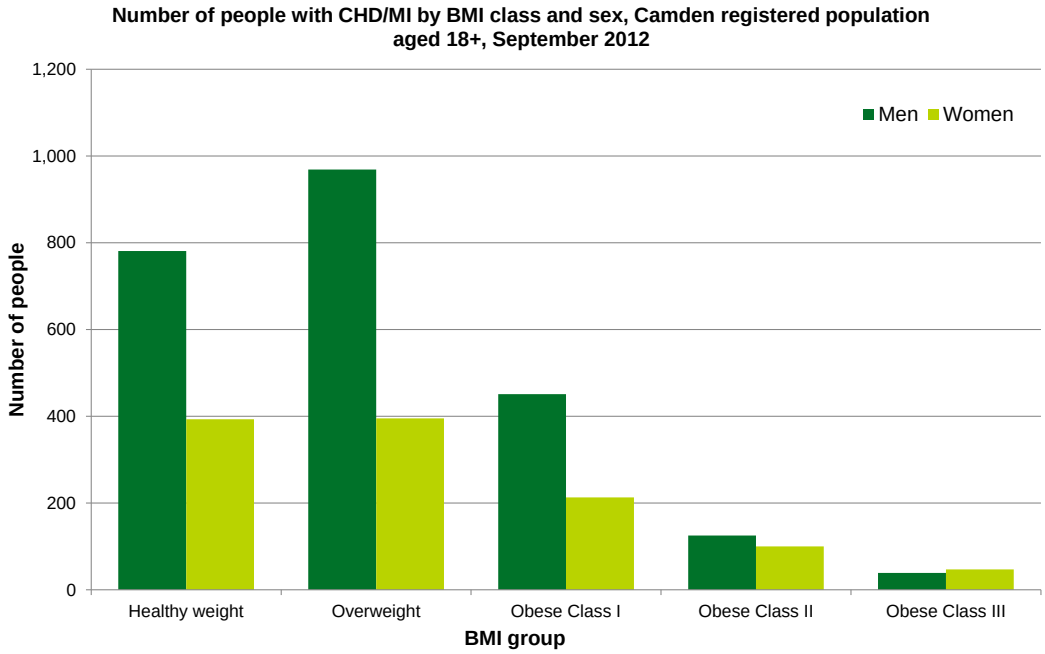
Indirectly standardised ratio of CHD/MI by BMI class (standardised against persons of healthy weight), Camden registered population aged 18+, September 2012



Source: Camden's GP PH dataset, 2012

- Overweight and obese people are between 1.5 and 2 times more likely have CHD/MI compared to people of healthy weight, with obese people more likely to have a diagnosis than overweight people.
- Most people with a CHD/MI are overweight rather than obese (about 1,400 vs 1,000).

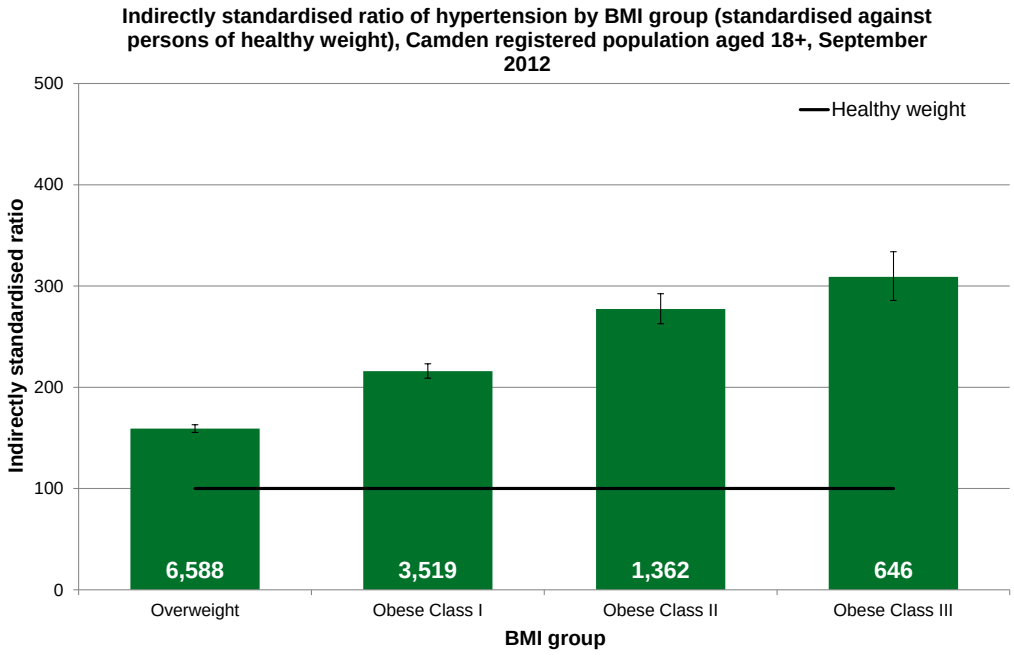
Number of people with CHD/MI by BMI class



- There are more men than women diagnosed with CHD/MI.
- Overall, overweight men account for the largest number of men with CHD/MI followed by men of healthy weight (about 1,000 vs. 800).
- There is a similar number of women who are overweight and of healthy weight.
- The difference between men and women is most notable for healthy weight and overweight, while there is hardly any difference between obese class II and III.

Source: Camden's GP PH dataset, 2012

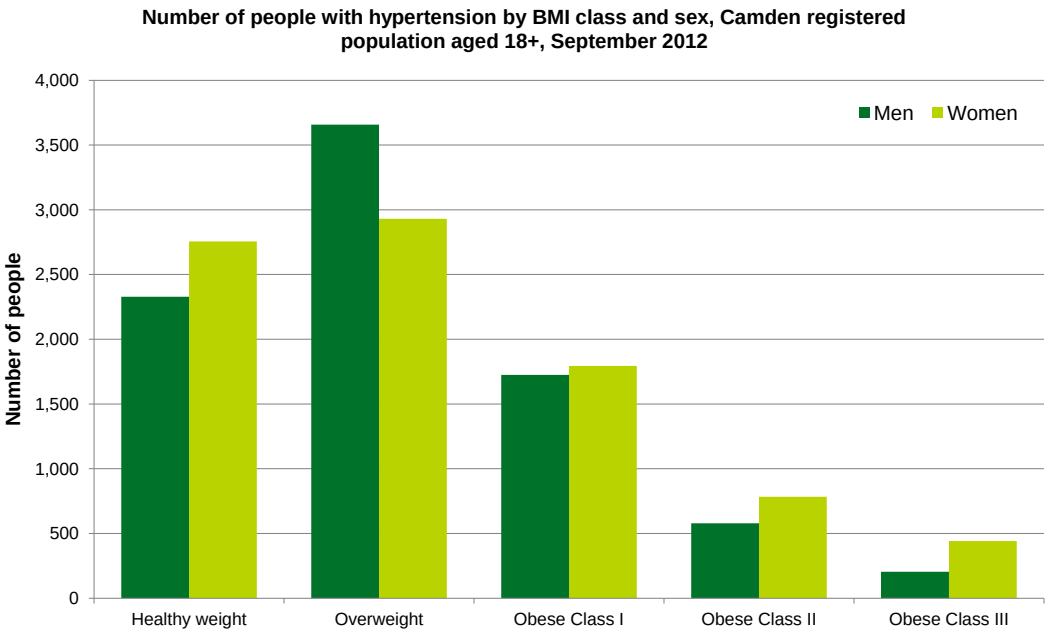
BMI group in people with hypertension



- Overweight and obese people are between 1.6 and 3.1 times more likely to be diagnosed with hypertension compared to people of healthy weight, with obese people more likely to have a diagnosis than overweight people.
- Most people with hypertension are overweight rather than obese (about 6,600 vs. 5,500).

Source: Camden's GP PH dataset, 2012

Number of people with hypertension by BMI class



- Overall, there are slightly more women than men diagnosed with hypertension (about 8,700 and 8,500 respectively).
- There are more women than men diagnosed with hypertension in all BMI categories apart from overweight, which includes approximately 3,700 men and 2,900 women.

Source: Camden's GP PH dataset, 2012

SECTION 6: HEALTH SERVICES, MANAGEMENT AND CARE

This section looks at recording and monitoring of patients including blood glucose (HbA1c), blood pressure and cholesterol levels.

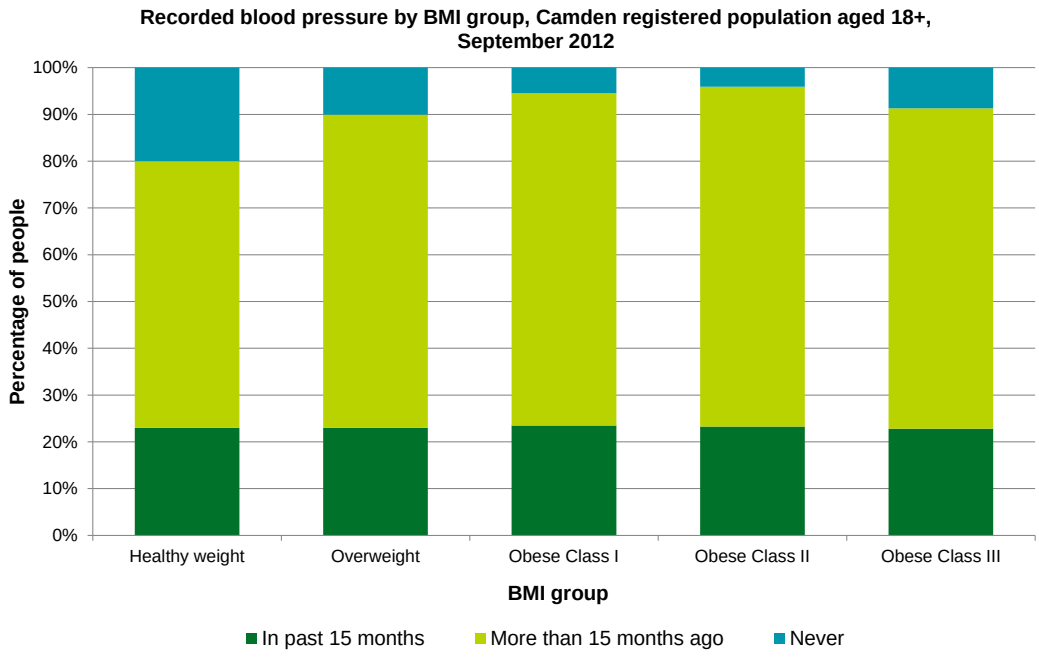
Note: This profile uses BMI classification which takes ethnicity into account, except where detailed BMI group is provided. Please see the 'Understanding the data' section for further information (pages 7-11).

NICE Obesity guidelines - assessment

- Once the identification of weight status has been undertaken and the issue of weight has been raised with the patient, an assessment should be done covering:
  - Comorbidities and risk factors using the following tests:
    - lipid profile (preferably fasting)
    - blood glucose (preferably fasting)
    - blood pressure measure.
  - Presenting symptoms and underlying causes of weight status
  - Eating behaviour
  - Lifestyle (diet and exercise)
  - Motivation to change
  - Potential of weight loss to improve health
  - Psychological problems
  - Medical problems and medication

Source: National Institute for Health and Clinical Excellence. NICE clinical guideline 43. Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. London: NICE 2006

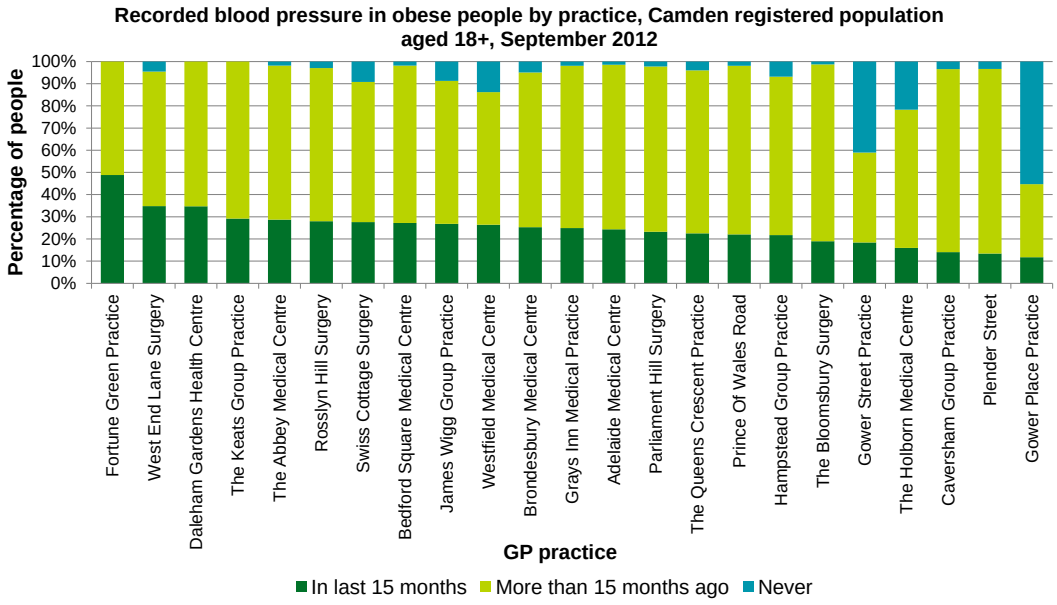
Recorded blood pressure by BMI group



- The percentage of people who had a blood pressure recording in the past 15 months is no different across BMI classes.
- However, there is an increase in the percentage in recording longer than 15 months ago in overweight and obese adults compared to adults with a healthy weight.

Source: Camden's GP PH dataset, 2012

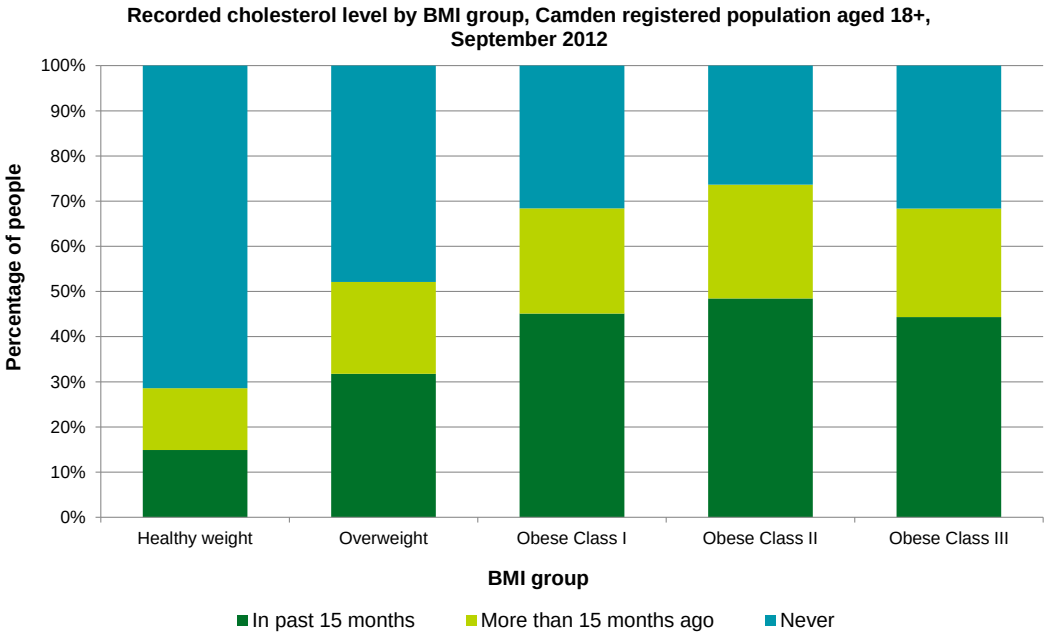
Recorded blood pressure in obese people by practice



- Recording of blood pressure amongst obese adults varies across GP practices.
- Recording in the past 15 months ranges from 12% to 49% by practice.
- Recording of blood pressure ever ranges from 45% to 100% across GP practices.
- Four practices are not included, as there is no record of BMI status. This is likely to be due to data extraction issues.

Note: Ten practices are not included due to small disclosive numbers. **Source:** Camden's GP PH dataset, 2012

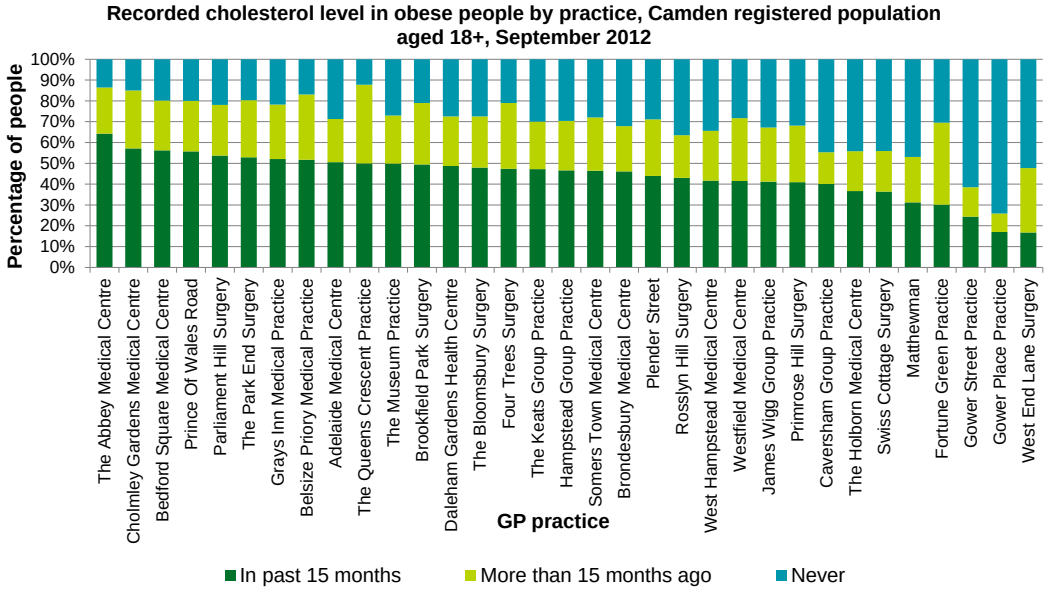
Recorded cholesterol level by BMI class



- Recording of cholesterol in the past 15 months is higher in adults who are overweight or obese, compared to healthy weight adults.
- Around 30% of adults in each obese class have never had their cholesterol recorded.
- This figure rises to around 50% in adults who are overweight.

Source: Camden's GP PH dataset, 2012

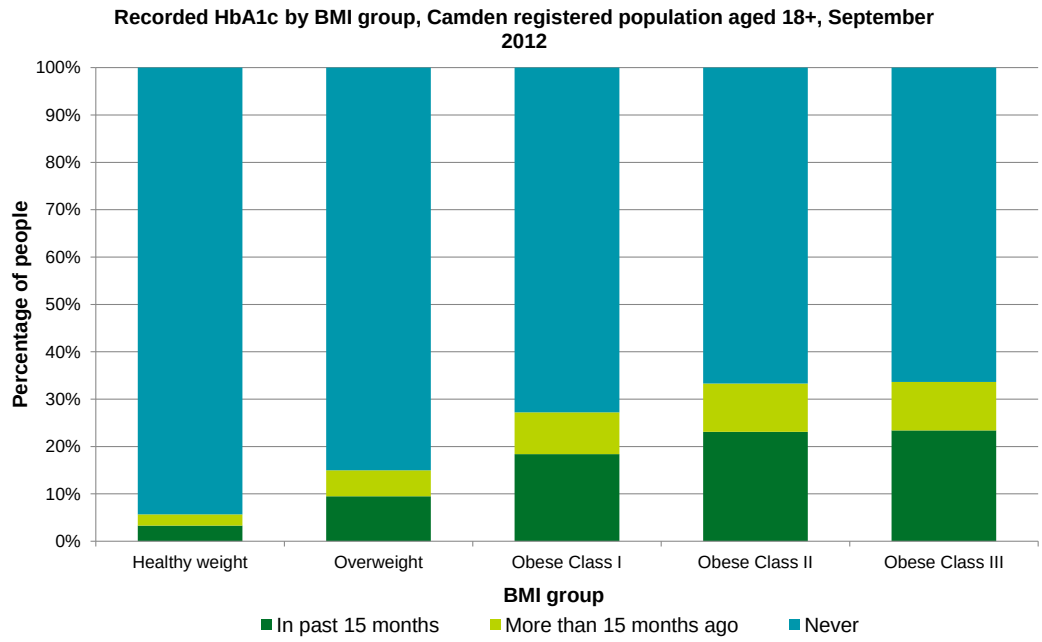
Recorded cholesterol level in obese people by GP practice



- The proportion of adults across GP practices who had their cholesterol taken in the past 15 months ranges from 17% to 64%.
- The proportion of adults who have ever had their cholesterol taken ranges from 26% to 88%.
- Four practices are not included, as there is no record of BMI status. This is likely to be due to data extraction issues.

Source: Camden's GP PH dataset, 2012

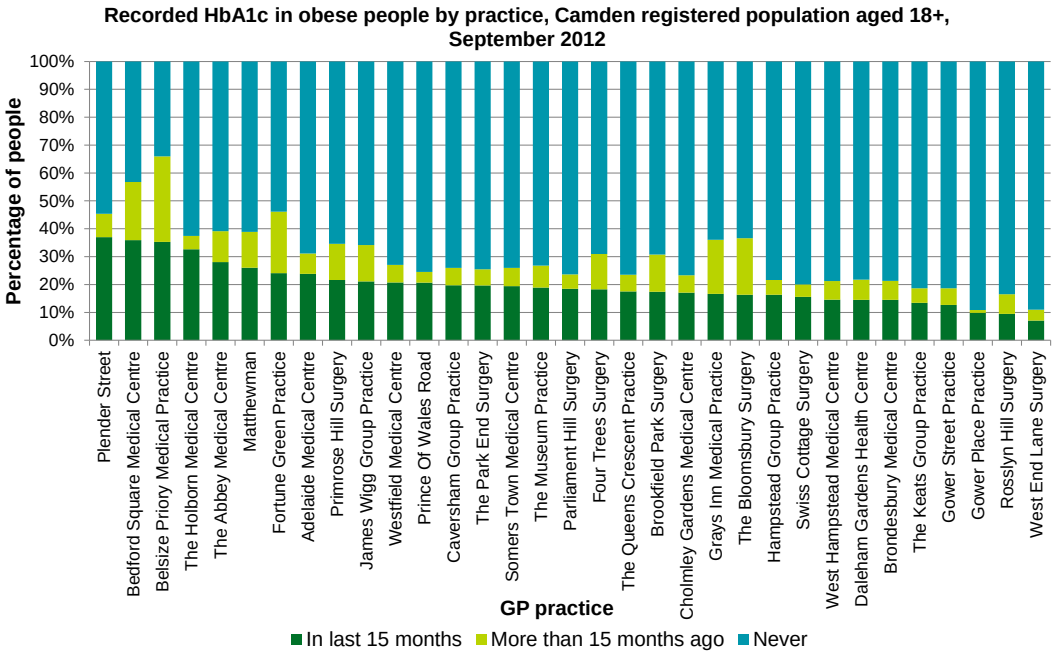
Recorded HbA1c level by BMI class



- Elevation in BMI is the dominant risk factor for diabetes.
- Over 65% of morbidly obese adults have never had their blood glucose (HbA1c) level recorded.
- Around 85% of overweight adults have never had their HbA1c level recorded.
- HbA1c is primarily used to monitor blood glucose in people with diabetes. Due to data availability it has not been possible to assess recording of different glucose measures that may be more commonly used for diagnosing diabetes.

Source: Camden's GP PH dataset, 2012

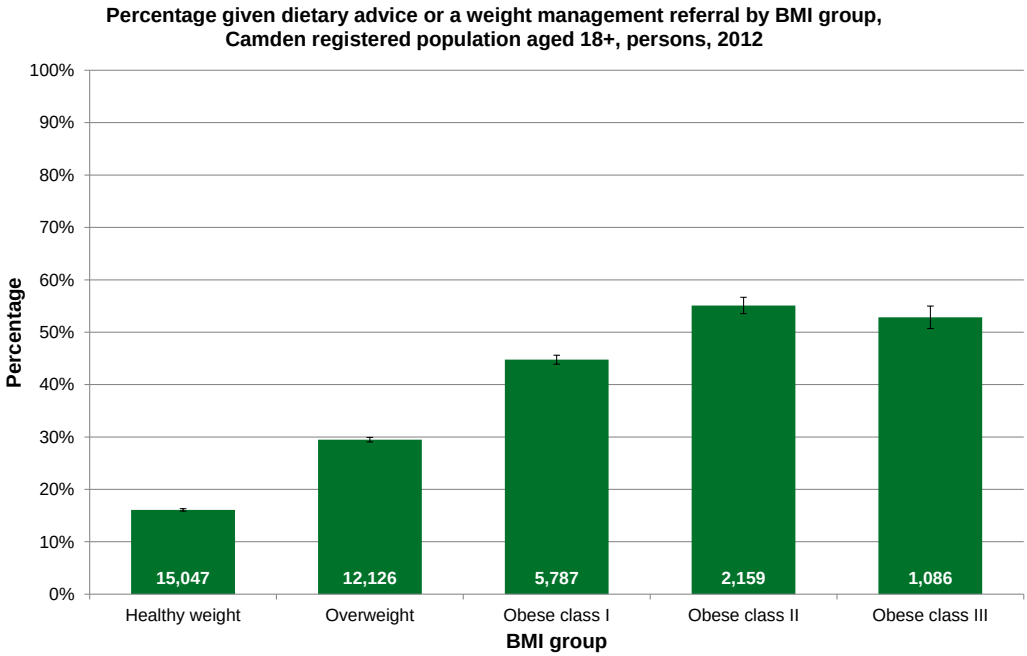
Recorded HbA1c in obese people by GP practice



- Recorded blood glucose (HbA1c) level in the past 15 months among obese adults by GP practice ranges from 7% to 37%.
- Obese adults who have never had their Hb1Ac recorded ranges from 34% to 89%.
- Four practices are not included, as there is no record of BMI status. This is likely to be due to data extraction issues.

Source: Camden's GP PH dataset, 2012

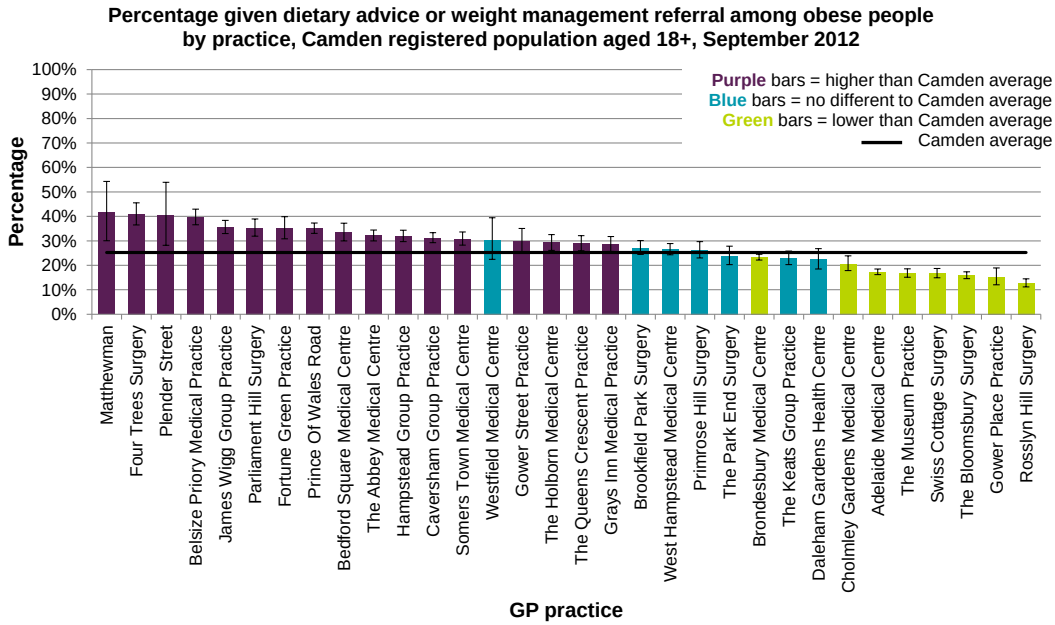
Dietary advice and weight management referral



- Overweight and obese people are more likely to have a record of having been offered dietary advice or weight management referral compared to people of healthy weight.
- Over half of people that are obese class II or obese class III have a record of having been offered dietary advice or weight management referral.

Source: Camden's GP PH dataset, 2012

Dietary advice and weight management referral by GP practice



Note: One practice with small disclosive numbers is not included. **Source:** Camden's GP PH dataset, 2012

- The percentage of obese people given dietary advice or weight management referral varies by GP practice from 42% to 13%.
- This percentage is higher than the Camden average for 17 practices, whereas it is lower than average for 8 practices.
- Four practices are not included, as there is no record of BMI status. This is likely to be due to data extraction issues.

About Public Health Intelligence

Public health intelligence is a specialist area of public health. Trained analysts use a variety of statistical and epidemiological methods to collate, analyse and interpret data to provide an evidence-base and inform decision-making at all levels. Camden and Islington's Public Health Intelligence team undertake epidemiological analysis on a wide range of data sources.

FURTHER INFORMATION & FEEDBACK

This profile has been created by Camden and Islington's Public Health Intelligence team. For further information please contact Tanya Khera-Butler

Email: publichealth.intelligence@islington.gov.uk, **Tel:** 020 7527 1251

We would also very much welcome your comments on these profiles and how they could better suit your individual or practice requirements, so please contact us with your ideas.