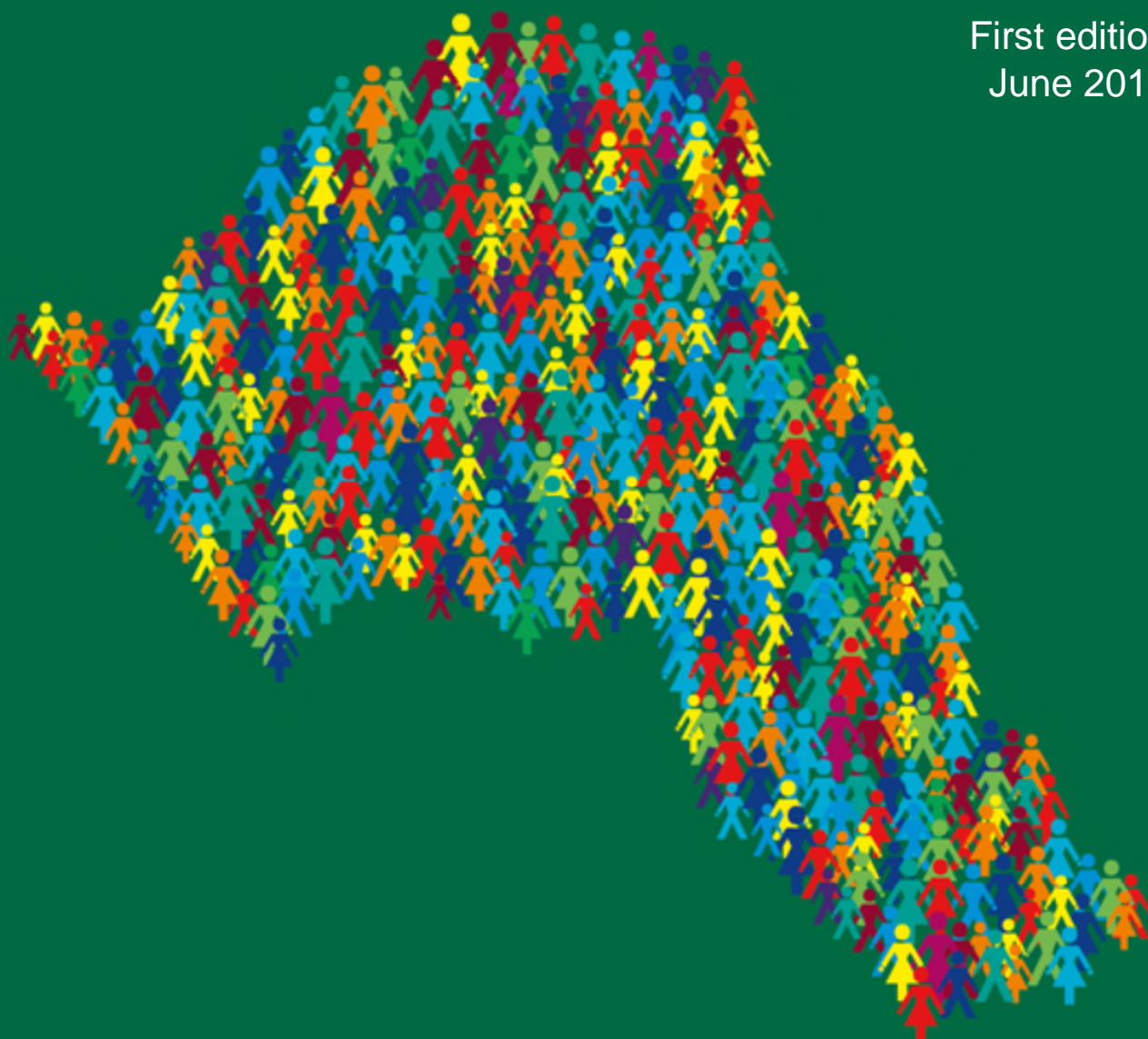


CAMDEN PROFILE PUBLIC HEALTH INTELLIGENCE

Camden Localities Profiles North locality

First edition
June 2014



About this profile

Purpose

This public health intelligence profile describes the patterns in demographics, risk factors and burden of ill health due to long term conditions for people registered with a GP in the North locality. This is one of three profiles for Camden localities, which have been produced to identify inequalities between boroughs.

This work will support and inform:

- London Borough of Camden Councillors and public health teams;
- Camden's Clinical Commissioning Group;
- Camden's Pharmaceutical Needs Assessment;
- Individual general practices in Camden.

This profile can be found on the Camden Data website at:

<http://www.camdendata.info/Pages/public-health.aspx>

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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.

Overview & recommendations

1. Patterns of disease prevalence and identifying groups with higher need.

Patterns in the distribution of the burden of ill health by demographic factors are similar in each locality. Prevalence of long term conditions is higher in older people, Black and minority ethnic (BME) groups and people in more deprived areas.

However, the prevalence of individual long term conditions does vary by locality, even after the age structure of the population is taken into account, meaning that the differences are not due to differences in the population age structure. The North locality has significantly higher rates of diagnosed cancer and chronic depression than the Camden average. Rates of diagnosed chronic kidney disease (CKD), chronic liver disease (CLD), chronic obstructive pulmonary disease (COPD), diabetes, high blood pressure and stroke & TIA are significantly lower than the Camden average. Camden should continue to address inequalities in health at a borough and CCG level, but localities should examine how their rates of diagnosed long term conditions vary from the Camden average and continue current work on case finding.

2. Higher prevalence of long term conditions in areas of high deprivation.

The prevalence of long term conditions by level of deprivation varies across localities and it is generally lower in less deprived areas. However, individual localities vary considerably in the distribution of levels of socio-economic deprivation. The South locality has a significantly higher proportion (56%) of people living in the most deprived areas among all localities, while the North locality has the lowest proportion with 28% of people living in the most deprived areas. This is despite the fact that there are no significant differences across localities in terms of social housing: people registered with a GP in the three localities live in LSOAs where the proportion of social housing ranges between 32% and 34% within the localities. This is not significantly different to the proportion in Camden (33%). Localities could use this information to inform where and how services are offered in the community. Focusing on the wider determinants of health is a priority for Public Health.

3. Mental health.

There are over 10,500 people registered with a GP in Camden who have a mental health condition (6%). More than one in four people living with a long term condition have a mental health condition. Furthermore, 39% of those with a mental health condition are also living with another long term condition. This pattern varies between Camden localities with the West locality having the highest proportion of people with another long term condition among those with a mental health condition (43%), and the South locality the lowest at 36%. Care for complex individuals must routinely integrate mental health care with care for other long term conditions.

4. Risk factors and recording.

One in five adults registered with a Camden GP do not have a record of alcohol consumption status. This varies by locality, with the highest non-recording in the South locality (23%) and the lowest in the West locality (15%). Working to improve recording of alcohol consumption would allow more accurate risk stratification of the population and could improve the identification of high risk patients.

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 localities and 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 localities and GP practices, not an expectation of 100% achievement.

- 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, a locality 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 by GP practice 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 localities think there are other problems with coding or data extraction, we will investigate and will amend publications as appropriate: publichealth.intelligence@islington.gov.uk

GP PH dataset

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 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.

Case definitions for long term conditions (LTCs)

- There is no standard definition for “long term conditions”; this report included conditions that have been identified as major causes of early death and key causes of ill-health.
- The following conditions are analysed in this profile, for Camden's registered population:

– Atrial fibrillation (AF)	– Dementia
– Cancer	– Diabetes
– Chronic depression	– Heart failure
– Chronic kidney disease (CKD)	– High blood pressure (hypertension)
– Chronic liver disease (CLD)	– Psychotic disorders
– Chronic obstructive pulmonary disease (COPD)	– Stroke / TIA
– Coronary heart disease (CHD)	
- The definition for most long term conditions matched those published for the QOF. The only exceptions were cancer, chronic liver disease and chronic depression. Clinical advice was sought in determining case definitions for these conditions:
 - **Chronic liver disease:** advice was sought from clinical leads before determining which Read Codes to include in analysis. These were: J6, J61*, J62y, J62z, J6353, J6355, J6356, J63B.
 - **Cancer:** malignant melanoma and skin cancers were not included.
 - **Chronic depression** was based on two factors:
 1. A diagnosis of depression, as defined by the QOF.
 2. And prescribing of antidepressant medication for 2 years or more.

Prevalence Modelling

Why is it used?

- Expected (total or estimated) prevalence is a statistical estimate of the percentage of people who might be living with a long term condition, regardless of whether the condition has been diagnosed or not. This can be used to give an indication of how many people (aged 16+) are living with undiagnosed conditions.
- The ratio of diagnosed prevalence to expected prevalence of long term conditions can be used to give an indication of the completeness of GP practice disease registers. A ratio of 1.0 suggests that everyone with a long term condition has been diagnosed, while a ratio of 0.5 implies that only half the number of expected cases have been diagnosed (and the other half have not).

How do the models work?

- The Association of Public Health Observatories (APHO) uses Bayesian statistical techniques (ie. modelling taking into account different probabilities, based on Bayes' Theorem) to estimate the number of people in given populations with particular conditions. This includes six of the long term conditions that are considered within this profile. Data from a variety of sources are used for each condition, including population statistics and epidemiological research, and adjusted for key factors (see table below).

Variables used for adjustment in the APHO prevalence models for registered populations

Variables	PREVALENCE MODEL					
	High blood pressure	Diabetes	CHD	CKD (stage 3+)	COPD	Stroke/TIA
Age range	16+	16+	16+	18+	16+	16+
Age specific	✓	✓	✓	✓	✓	✓
Gender	✓	✓	✓	✓	✓	✓
Ethnicity	✓	✓	✓		✓	
Deprivation	✓	✓	✓		✓	✓
Smoking			✓		✓	✓
Obesity		✓				
Urban-rural classification					✓	

- For full details see APHO Technical Briefing 8: Prevalence Modelling <http://www.apho.org.uk/resource/item.aspx?RID=100181>

Prevalence Modelling

Limitations

While prevalence models provide estimates of the levels of under-diagnosis, they have a number of limitations which should be considered when interpreting the data. These include:

- Some of the variables used in the models are themselves estimates, which may reduce accuracy. For example, due to the lack of good lifestyle data at a local level, smoking and obesity prevalences are estimated using national survey data.
- The definition used in the modelling for some of the conditions may not be the same as in clinical practice because of data availability. For example, the Health Survey for England definition of high blood pressure which is used in the high blood pressure model, is based on one reading, whereas NICE recommends using three readings at monthly intervals for a clinical diagnosis. The high blood pressure model may therefore, overestimate the prevalence of high blood pressure within a clinical setting.

Interpreting the values

- There is always uncertainty around models so the outputs should be used as an indication of the size of the prevalence gap (i.e.. are there 10s or 1,000s of undiagnosed patients).
- To capture the uncertainty around the modelling we have used the 95% confidence intervals to determine whether or not the prevalence gap is statistically significant. It is only a gap where there is a statistically significant difference.

Measuring social housing density

- Information on housing tenure was retrieved from the census data at LSOAs level.
- LSOAs were extracted from the GP dataset and linked to the census data to have an indication of social tenure in LSOAs where patients live.
- This information is not individual but describes a geographical area.
- As it not possible to determine whether any given individual lives in social housing or not, the area each individual lives in is looked at, to see whether that area contains a lot of social housing, only a little, or none at all.

Understanding the data

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.

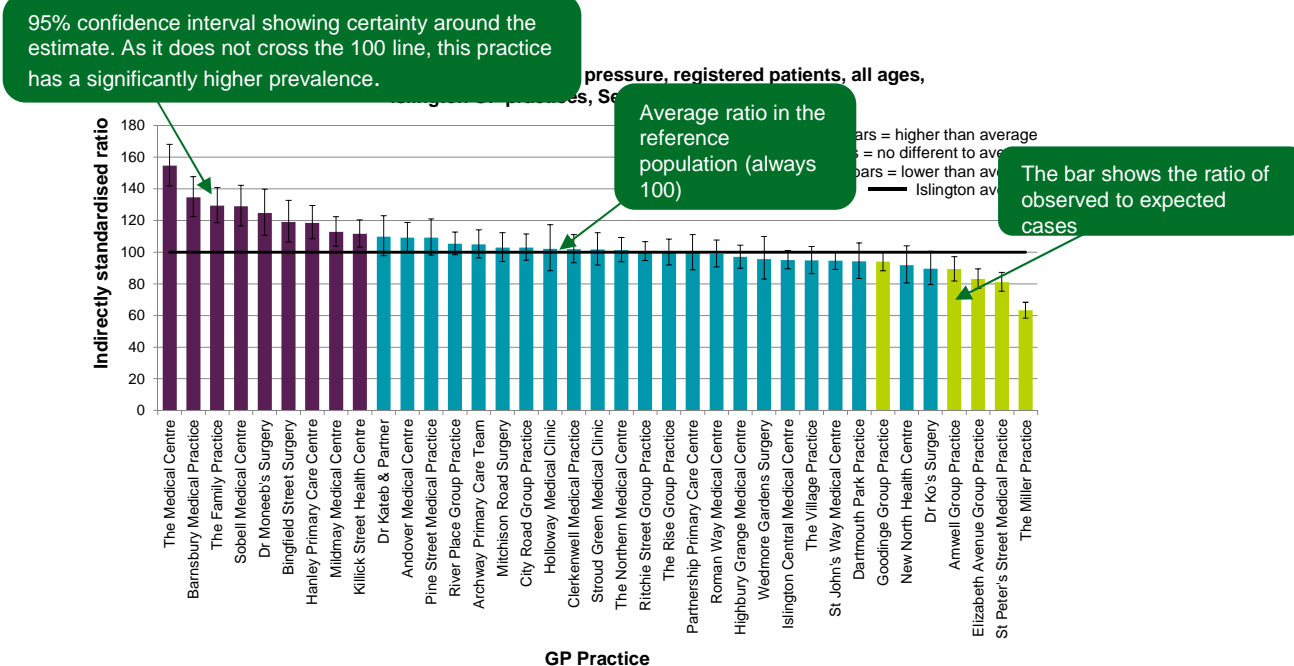
Indirectly standardised prevalence ratios (IDSR)

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 or locality 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 or localities 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 or locality had a higher than expected prevalence of the condition compared to Camden (and this was not due to the practice/locality having an older population, for example). If the IDSR is less than 100, it means the practice or locality had a lower than expected prevalence.
- The size of the IDSR tells how different a practice or locality is from Camden. In the example below, 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.



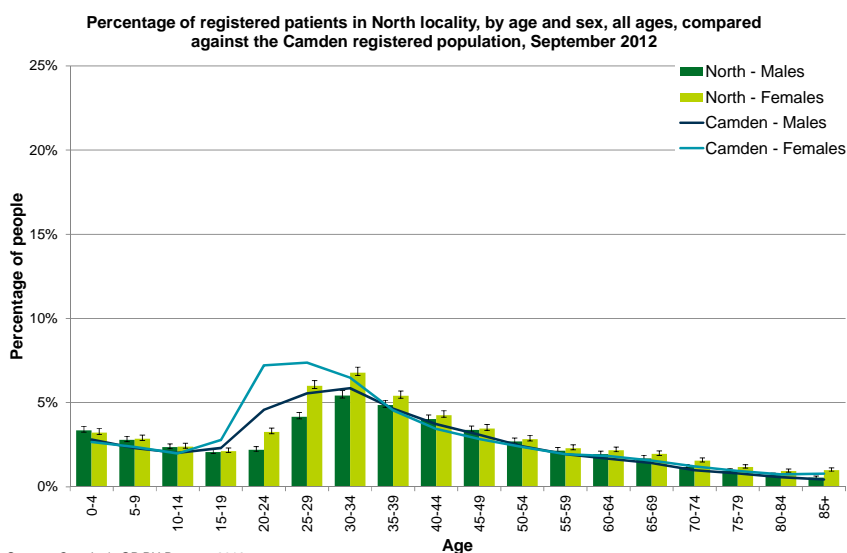
Source: Islington's GP PH Dataset, 2012

DEMOGRAPHICS

This section describes the demographics of the locality's population, compared against the Camden average.

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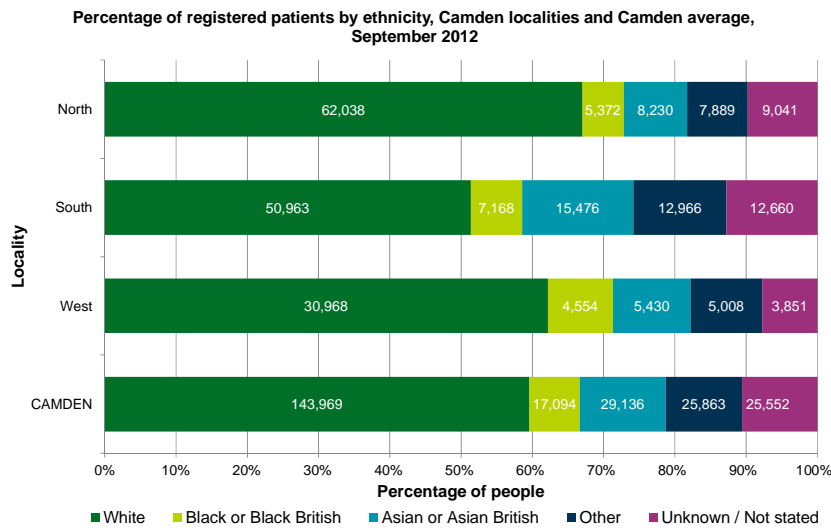
Demographics: age & sex



- A total of 92,570 people are registered with a GP practice in the North locality.
- The population structure of the locality is not significantly different to the Camden population in terms of age and sex for people younger than 20 and older than 30.
- People in the age group 20-30 represent a smaller proportion than in Camden with a significant smaller proportion of women.

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Demographics: ethnicity

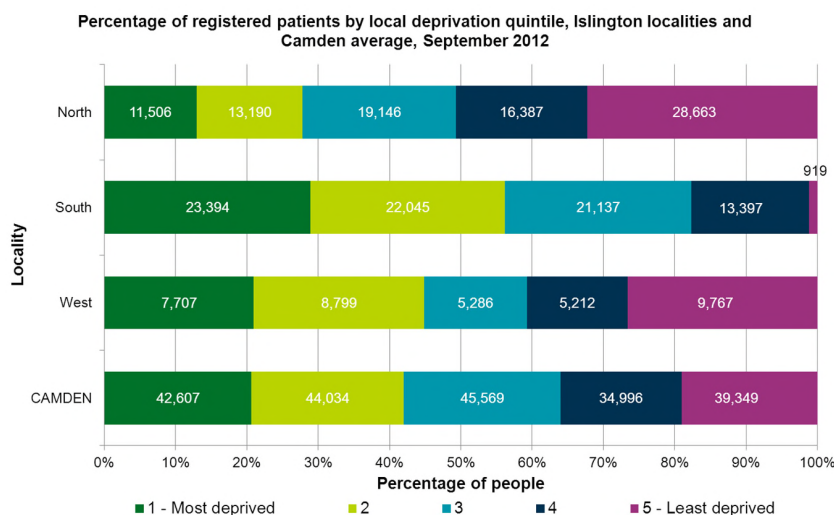


Source: Camden's GP PH Dataset, 2012

- The ethnic mix of the population varies between Camden's localities.
- The North has significantly more White people than in Camden overall (67% and 60% respectively).
- The percentage of the Asian population ranges from 9% in the North to 16% in the South.
- The proportion of Black or Black British is similar between the localities and Camden and ranges between 6% in the North and 9% in the West with Camden proportion being 7%.

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Demographics: deprivation



Source: Camden's GP PH Dataset, 2012

Note: 35,059 patients are resident outside of the borough, and are not included in this graph.

- Socioeconomic deprivation varies considerably between localities.
- The North locality has more than half of its patients population living in the least deprived areas.
- The proportion of registered population living in the most deprived areas is significantly lower in the North than in any other Camden location.

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Demographics: social housing

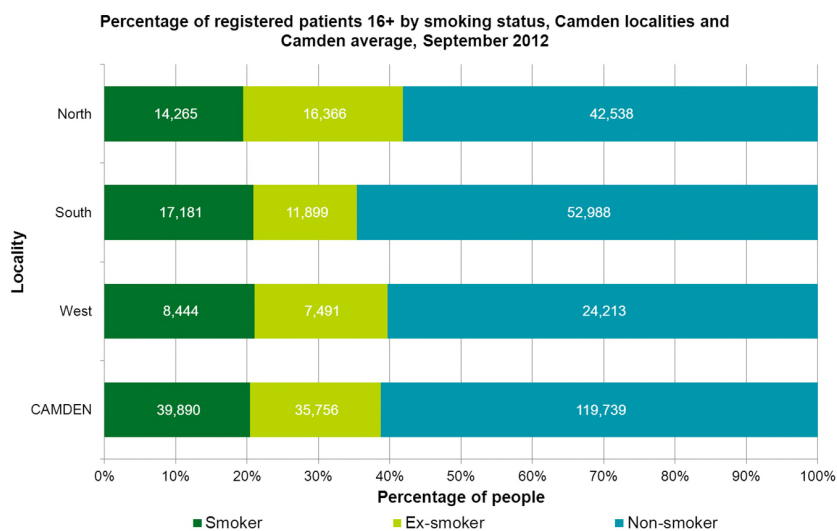
- People registered with a GP in the three localities live in LSOAs where the proportion of social housing ranges between 32% and 34% within the localities. This is not significantly different to the proportion in Camden (33%).

RISK FACTORS

This section looks at the prevalence of smoking, BMI categories, and alcohol consumption in the locality compared with other localities and the Camden average.

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Risk factors: smoking

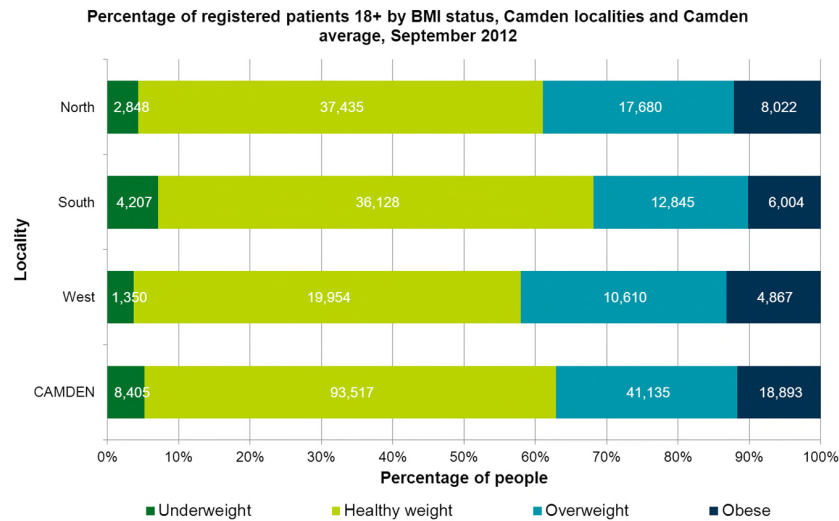


Source: Camden's GP PH Dataset, 2012
Note: 10,487 people had no recorded smoking status

- Smoking prevalence is similar overall ranging between 19% in the North and 21% in the South and West, compared with 20% in Camden overall.
- The North has the highest prevalence of ex-smokers at 22% and in the South the lowest at 15%.

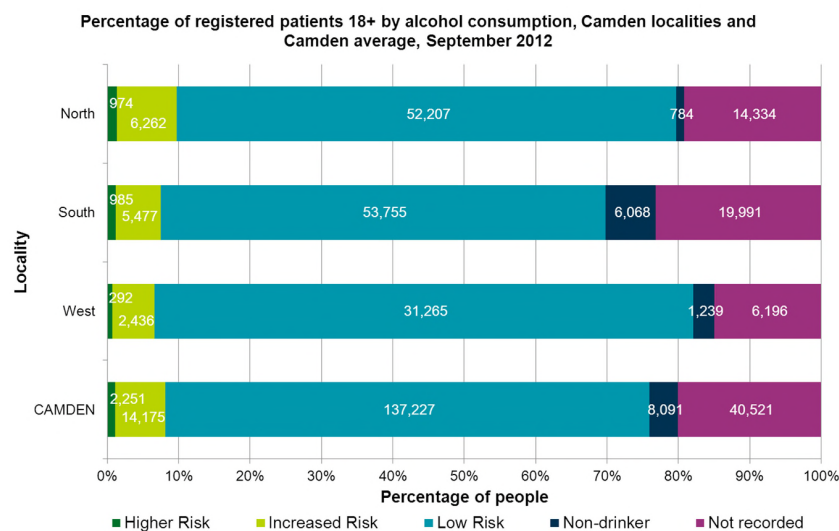
15

Risk factors: Body Mass Index (BMI)



- The West locality has a higher percentage of obese and overweight people (13% and 29%, respectively) than the Camden average (12% and 25%).
- The North has a lower proportion of healthy weight people (56%) than the Camden average (58%)
- The overall BMI distribution in the North locality is similar to the Camden average.

Risk factors: alcohol



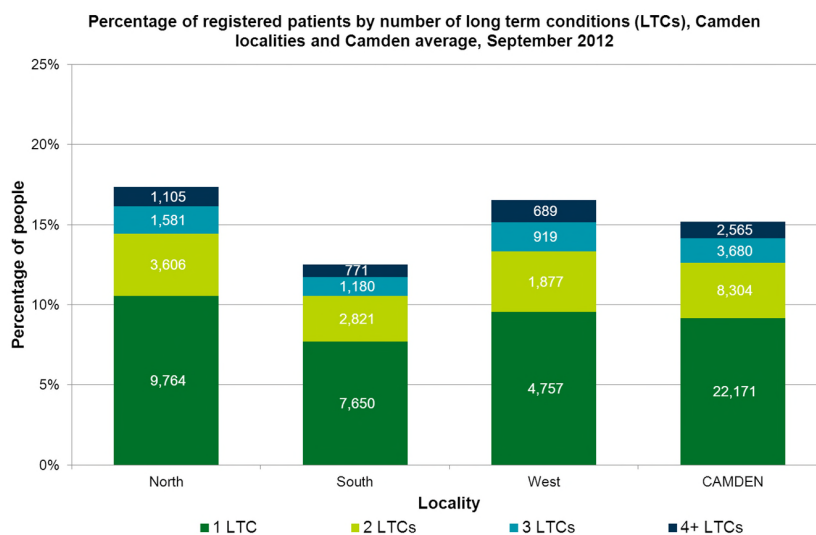
- High levels of non-recording means that this data should be interpreted with caution.
- The proportion of non-recording of alcohol consumption in the North locality is similar to Camden, 19% and 20% respectively.

BURDEN OF ILL HEALTH

This section looks at the burden of ill health in the locality, by equalities characteristics, as well as among patients with more complex needs.

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Prevalence of long term conditions

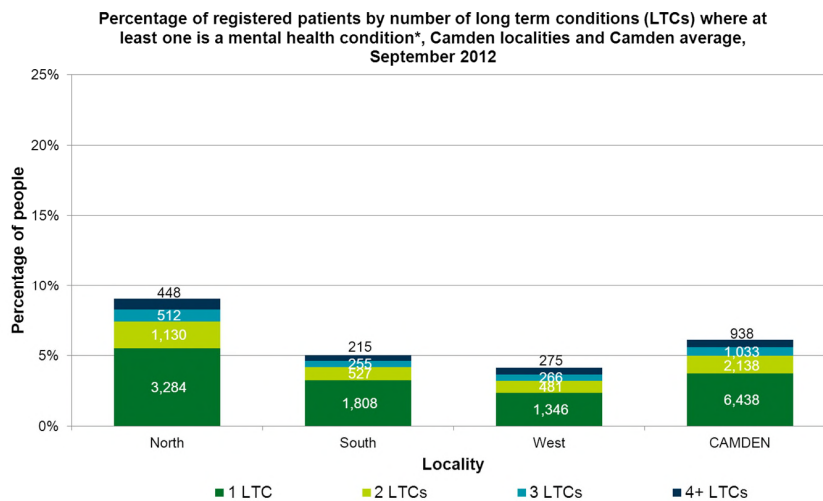


Source: Camden's GP PH Dataset, 2012

- Overall, 15% of people (36,720 people) in Camden have at least one long term condition.
- There is a higher percentage of people with at least one long term condition in the North locality (11%), and a lower percentage in the South locality (8%).
- In Camden, about 6% of people have more than one long term condition and in the North locality about 7%.

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Prevalence of long term conditions among people with mental health conditions



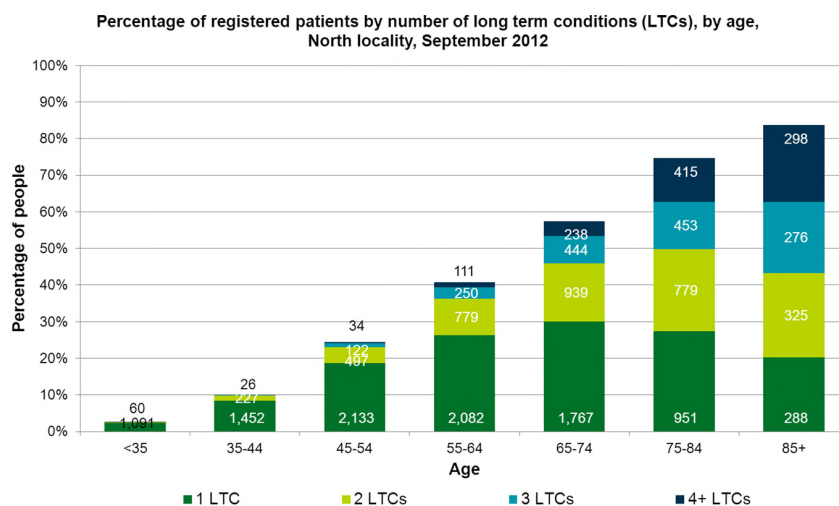
Source: Camden's GP PH Dataset, 2012

Note: Mental health conditions include chronic depression, dementia, and psychotic disorders. 26,173 people have at least one long term condition, but no mental health condition.

- 10,547 patients (6%) in Camden are diagnosed with a mental health condition with the North locality with the highest proportion, 4,926 patients (9%).
- 39% of people with a mental health condition have also been diagnosed with another long term condition.
- The distribution of comorbidities in people with a mental health condition across each of the localities is similar to the Camden average.

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Prevalence of long term conditions by age



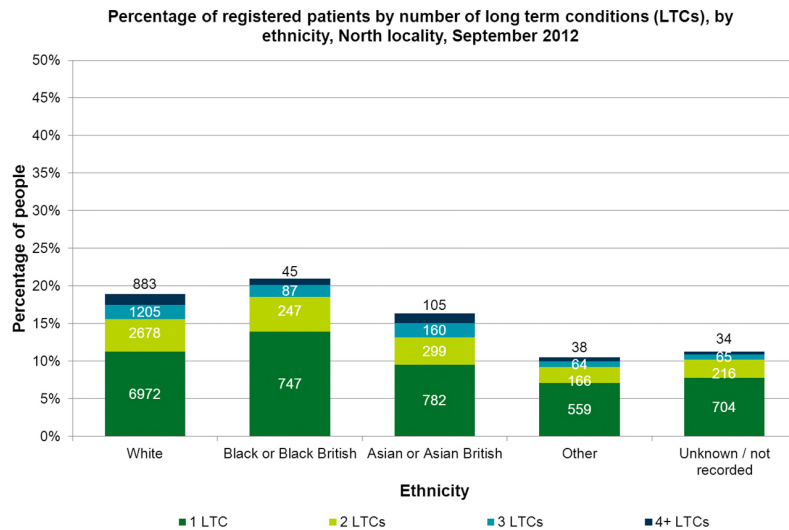
Source: Camden's GP PH Dataset, 2012

Note: Due to small numbers of cases, the bars for 3 and 4+ LTCs among people aged <35, and 4+ LTCs among people aged 35-44 have been suppressed.

- The prevalence of long term conditions increases with age – 65% of people in the North locality with a long term condition are aged 55 and over (10,395 people).
- Older people are also more likely to suffer from more than one long term condition. In the North locality 4,167 people aged 65 and over have more than one long term condition.
- This picture is similar to the Camden average.

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Prevalence of long term conditions by ethnicity

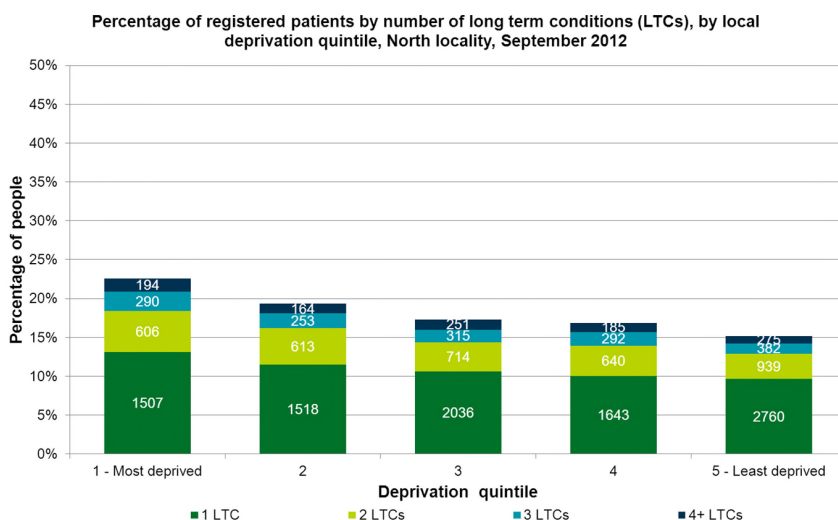


Source: Camden's GP PH Dataset, 2012

- The prevalence of long term conditions by ethnic group in the North locality is similar to the Camden pattern. Among the unknown/not recorded ethnicity the prevalence of long term conditions is lower in the North (21%) compared to the Camden average (18%).
- Prevalence of long term conditions is highest among the Black and Black British population (21%), significantly higher than the locality average (18%).
- People with 'Other' ethnicities are less likely to have any long term conditions.

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Prevalence of long term conditions by deprivation



Source: Camden's GP PH Dataset, 2012

Note: 3,678 patients are resident outside the borough, and are excluded from this graph.

- There is a significant difference in prevalence of long term conditions between the most and least deprived quintiles in the North locality (23% compared to 15%).
- In Camden this difference is smaller: 19% vs 15% respectively.

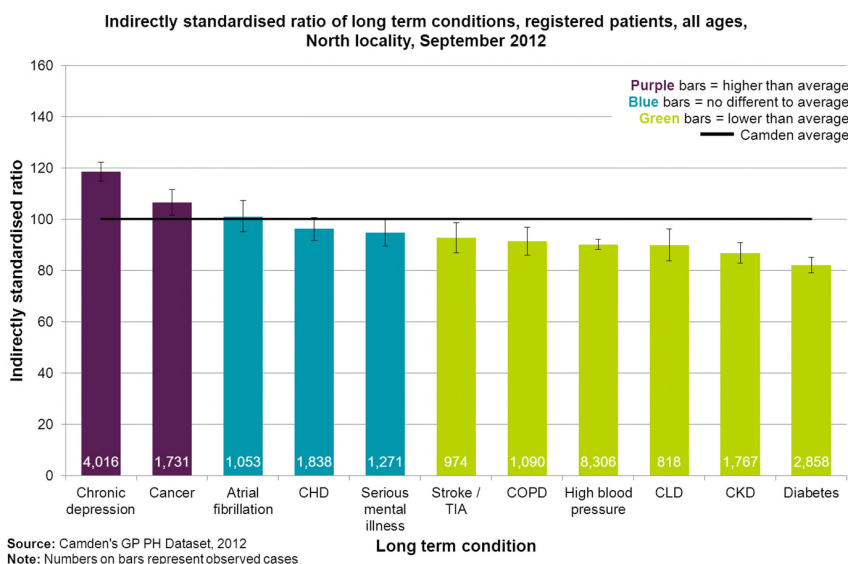
23

BURDEN OF ILL HEALTH – INDIVIDUAL CONDITIONS

This section looks at the prevalence of long term conditions, including age-standardised rates, and the estimated number of undiagnosed cases.

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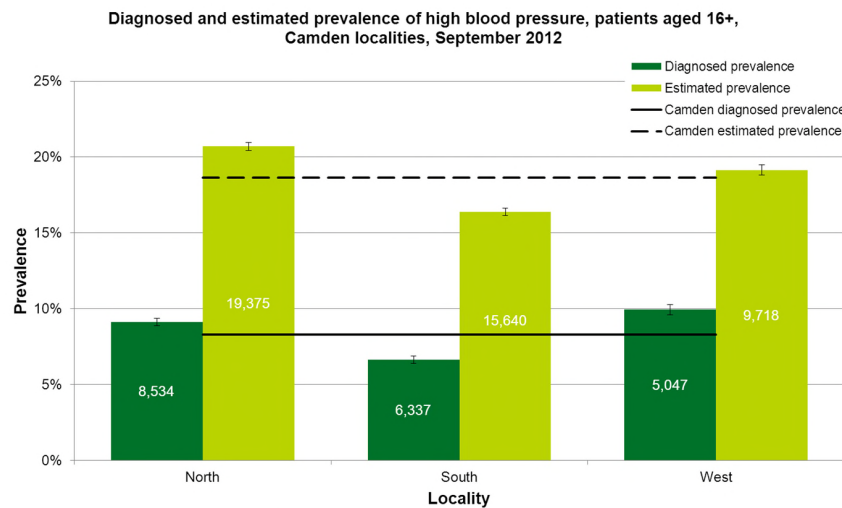
Indirectly standardised ratio of long term conditions



- The prevalence of atrial fibrillation, coronary heart disease and serious mental illness in the North locality is similar to the Camden average, after adjusting for differences in age between the two populations.
- The standardised ratio in the North locality of chronic depression and cancer is higher than the Camden average.
- The standardised ratio of all the other long term conditions is lower than the Camden average.

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Diagnosed and estimated prevalence of high blood pressure

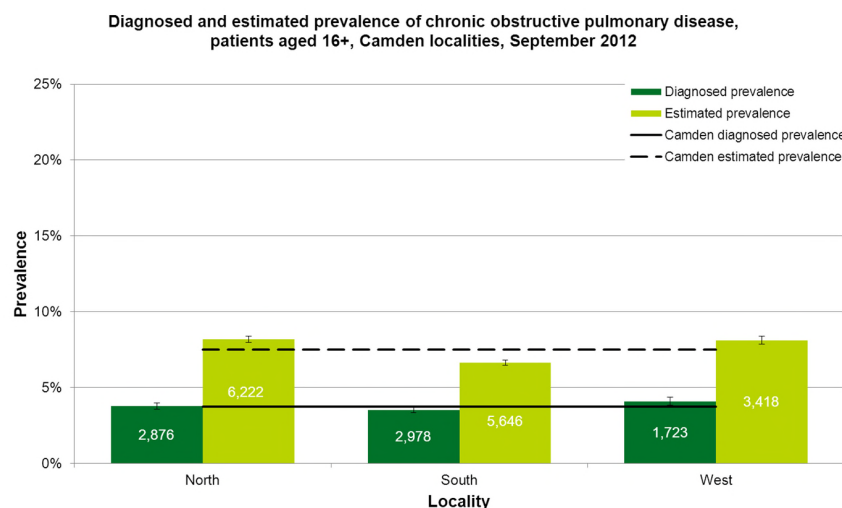


Source: APHO Prevalence Model, 2012; Camden's GP PH dataset, 2012

Note: Camden Road Surgery, St Phillips Medical Centre and Camden Health Improvement Centre are not included in the modelled estimates of prevalence and therefore do not appear on this graph

- It is estimated that just over 19% of patients in Camden have high blood pressure, but only 8% of patients have been diagnosed.
- There is a large gap between the estimated and diagnosed prevalence in each of the localities, with about 25,200 patients living with undiagnosed high blood pressure.
- The biggest gap is in the North locality with 11.6% of undiagnosed people.

Diagnosed and estimated prevalence of diabetes

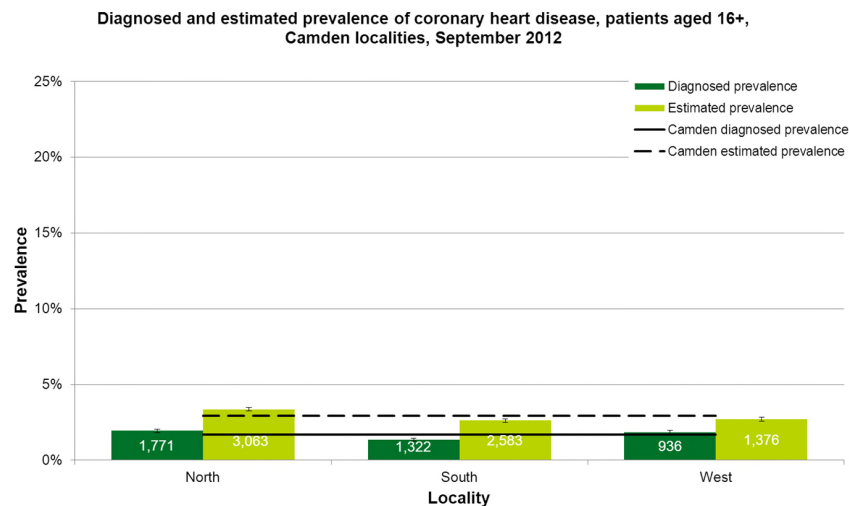


Source: APHO Prevalence Model, 2012; Camden's GP PH dataset, 2012

Note: Camden Road Surgery, St Phillips Medical Centre and Camden Health Improvement Centre are not included in the modelled estimates of prevalence and therefore do not appear on this graph

- It is estimated that 8% of people in Camden have diabetes, with 4% of patients already diagnosed. This suggests that 50% of people with diabetes have not been diagnosed.
- In the North locality the prevalence gap is 54% and it is the biggest among all the other localities and Camden (50%).

Diagnosed and estimated prevalence of CHD

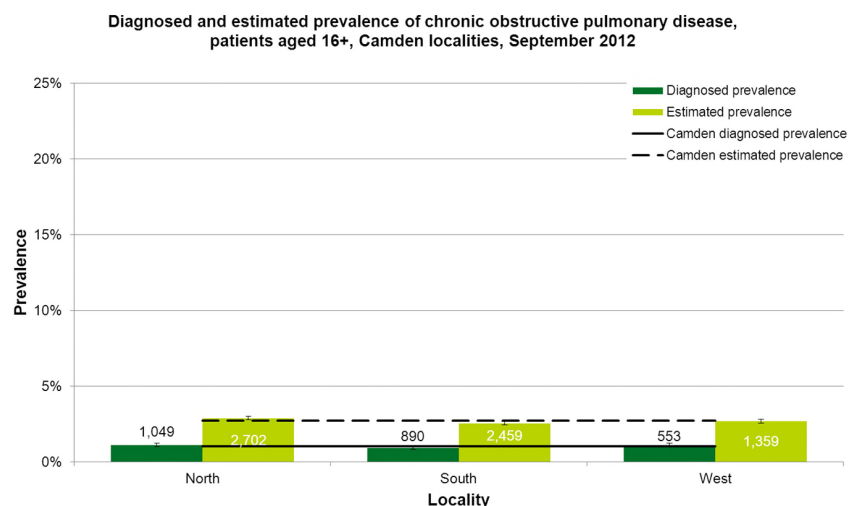


Source: APHO Prevalence Model, 2012; Camden's GP PH dataset, 2012

Note: Camden Road Surgery, St Phillips Medical Centre and Camden Health Improvement Centre are not included in the modelled estimates of prevalence and therefore do not appear on this graph

- Just above 4,000 people in Camden have been diagnosed with CHD, but it is estimated that there are an additional 3,000 undiagnosed cases in the borough's registered population.
- These undiagnosed cases vary across the localities – 58% of the estimated cases in the North have been diagnosed and this is similar to Camden (57%).

Diagnosed and estimated prevalence of COPD

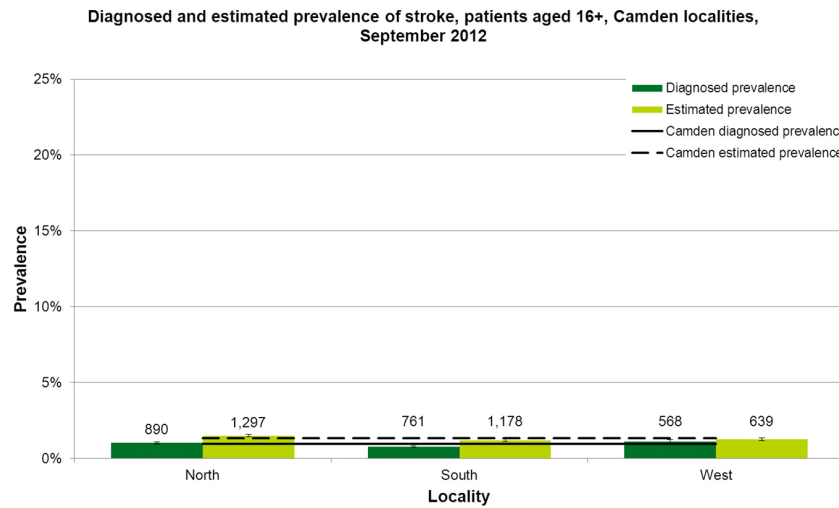


Source: APHO Prevalence Model, 2012; Camden's GP PH dataset, 2012

Note: Camden Road Surgery, St Phillips Medical Centre and Camden Health Improvement Centre are not included in the modelled estimates of prevalence and therefore do not appear on this graph

- There are an estimated 6,520 cases of COPD in Camden, with 2,492 diagnosed (38% of cases).
- The proportion of cases that have been diagnosed range from 36% in the South locality to 41% in the West.
- In the North the proportion of diagnosed cases is similar to Camden (39% and 38% respectively).

Diagnosed and estimated prevalence of stroke



Source: APHO Prevalence Model, 2012; Camden's GP PH dataset, 2012

Note: Camden Road Surgery, St Phillips Medical Centre and Camden Health Improvement Centre are not included in the modelled estimates of prevalence and therefore do not appear on this graph

- It is estimated that over 3,000 people in Camden have had a stroke, but only about 2,200 have been diagnosed.
- The proportion of cases that have been diagnosed ranges from 65% in the South to 89% in the West.
- In the North locality the proportion of diagnosed cases is similar to Camden (69% and 71% respectively).

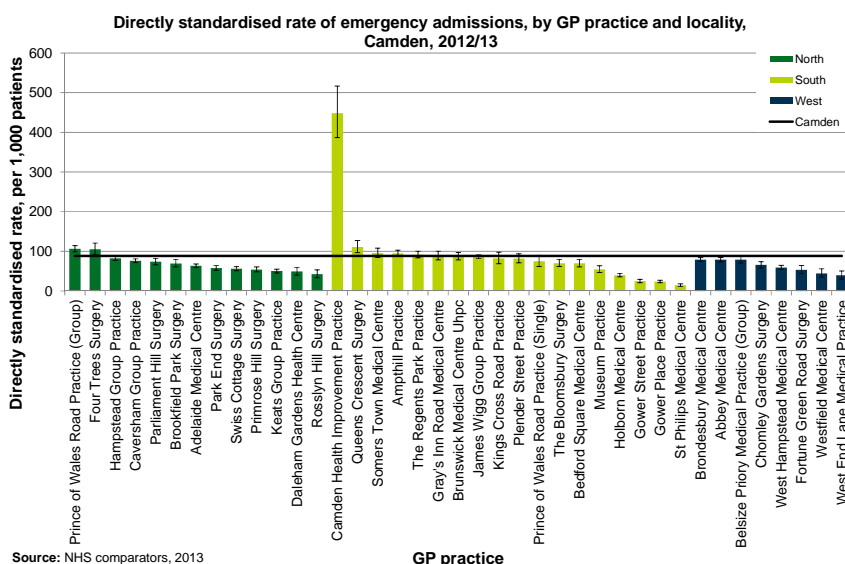
EMERGENCY HOSPITAL ADMISSIONS

This section looks at the number and rate of emergency hospital admissions, by practice, and the average length of stay for emergency admissions.

Note: Directly standardised ratios are not available by locality, so rates and numbers for GP practices are presented in this section.

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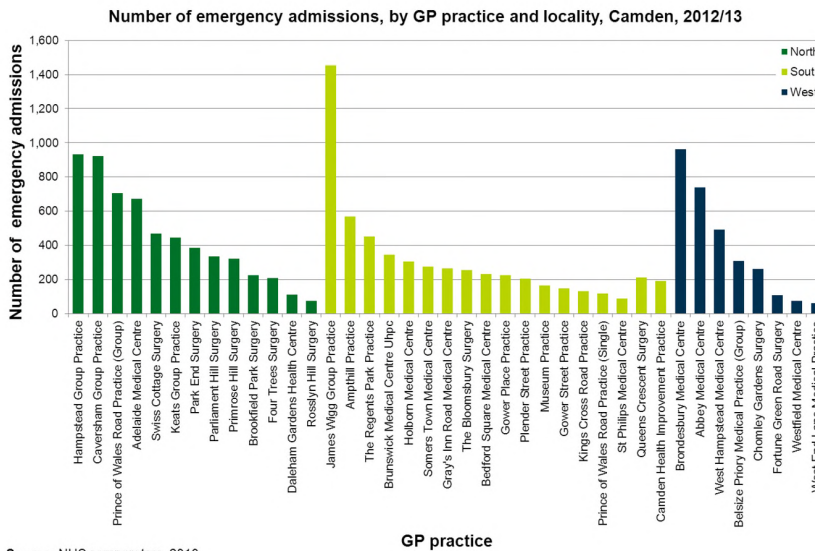
Emergency admissions: standardised rates



- All localities show variation in rates of emergency admissions by GP practices.
- In the North locality two practices have higher standardised rates of emergency admissions than Camden average while the rest of the practices have lower rates.
- Camden Health Improvement Practice has a high number of registered homeless people explaining the higher admissions rates.

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Emergency admissions: numbers

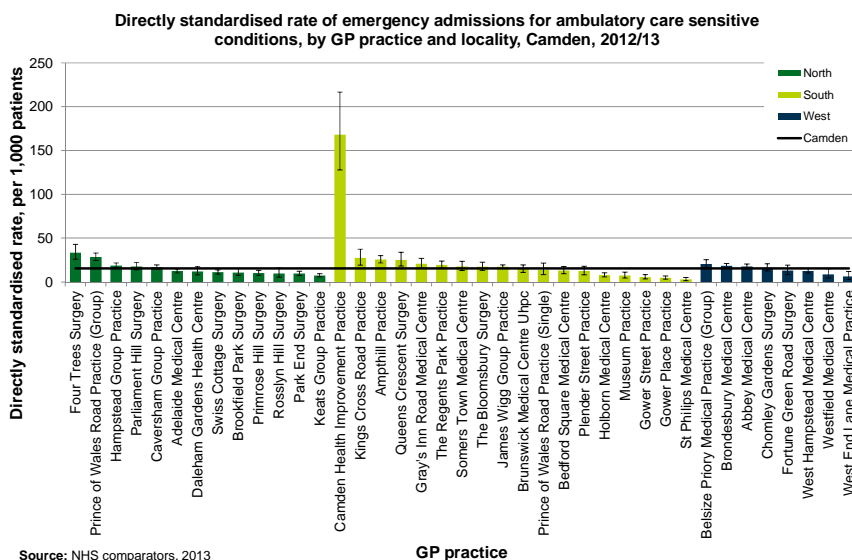


Source: NHS comparators, 2013

- There were 14,417 emergency admissions in Camden in 2012/13.
- The North locality had the highest number of emergency admissions (5,802).
- Camden Health Improvement Practice has the highest number of admissions. This can be explained by the fact that this practice has a high number of registered homeless people.

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Ambulatory care sensitive (ACS) admissions: standardised rates

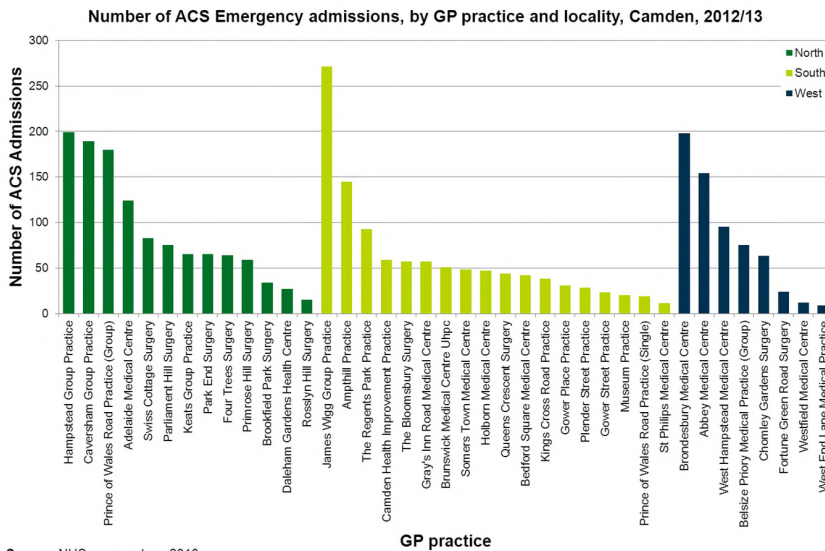


Source: NHS comparators, 2013

- All localities show variation in rates of ACS admissions by GP practices
- The practices that had significantly higher than average rates of ACS admissions were in the North and South localities.
- Camden Health Improvement Practice has a high number of registered homeless people explaining the higher admissions rates.

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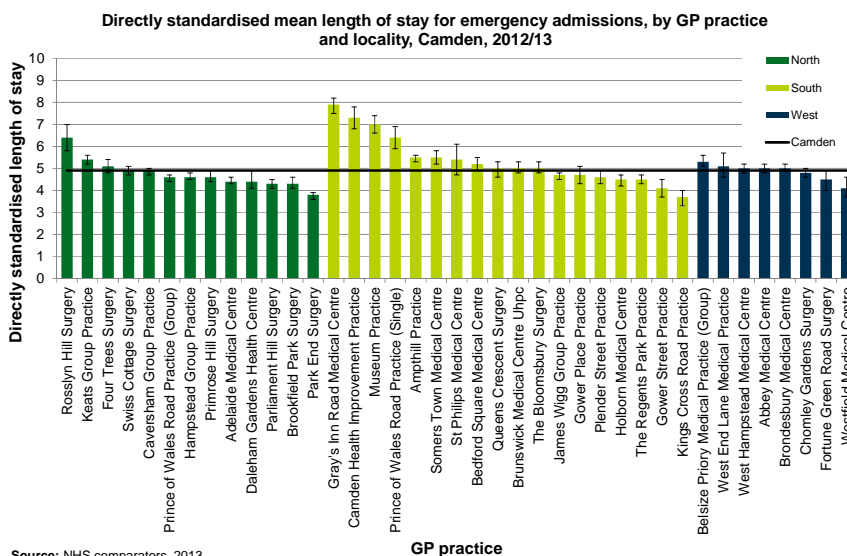
Ambulatory care sensitive (ACS) admissions: numbers



- There were 2,893 ACS admissions in Camden in 2012/13.
- The North had the highest number of ACS admissions (1,179).

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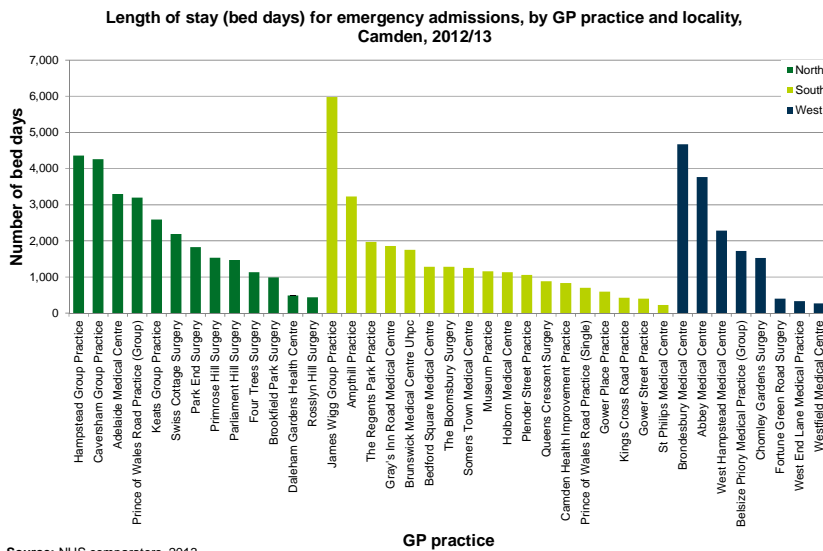
Length of stay for emergency admissions: standardised rates



- All localities show variation by GP practice in mean length of stay for emergency admissions.
- Shorter length of stay may mean a locality has a less complex case mix, or reflect good quality discharge planning and post discharge support in the community.
- 3 practices out of 9 with higher rates of mean length of stay are in the North locality.

36

Length of stay for emergency admissions: numbers



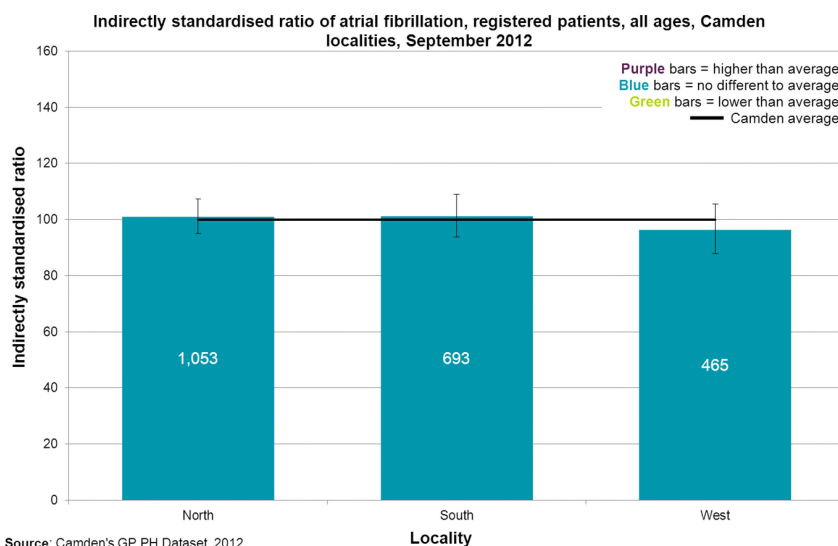
- There were 68,808 bed days in Camden in 2012/13.
- The North had the highest number of bed days (27,785).

APPENDIX: INDIRECTLY STANDARDISED RATES, BY CONDITION

This section shows graphs for each condition, showing the indirectly standardised rate across all three localities.

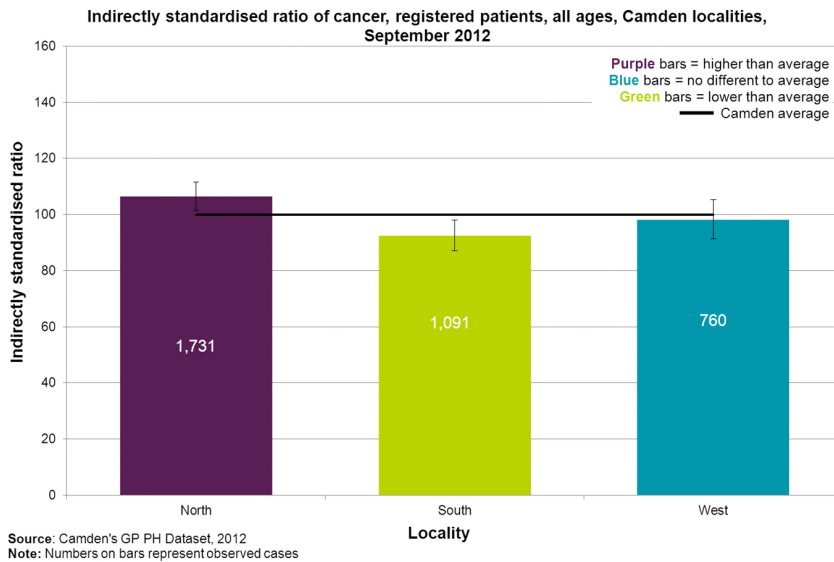
38

Indirectly standardised rates: atrial fibrillation



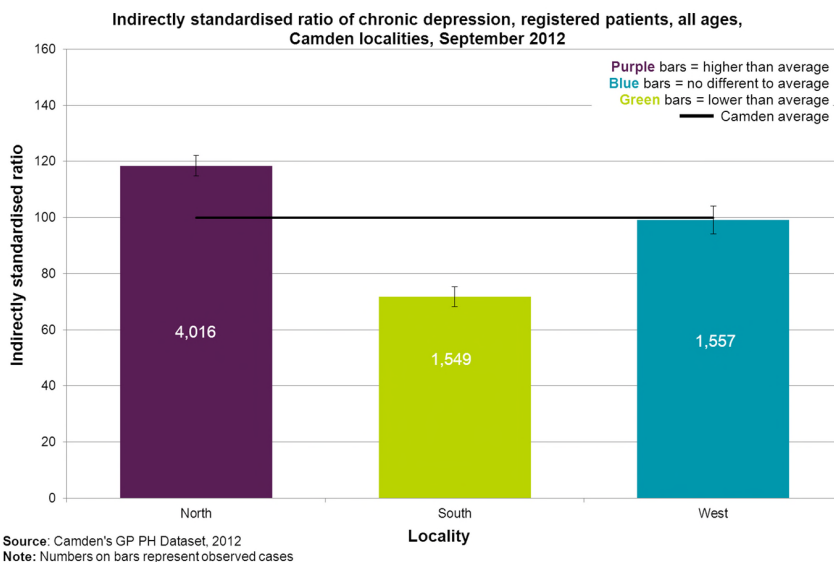
39

Indirectly standardised rates: cancer



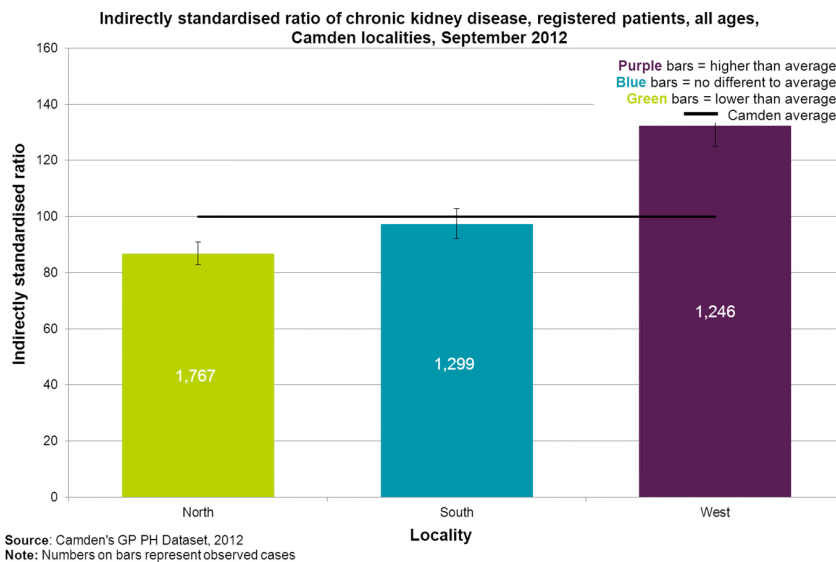
40

Indirectly standardised rates: chronic depression



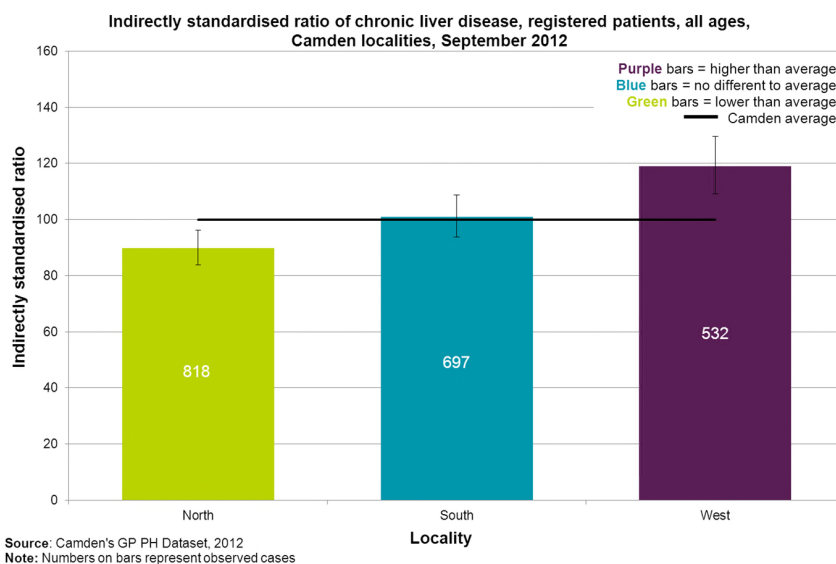
41

Indirectly standardised rates: chronic kidney disease



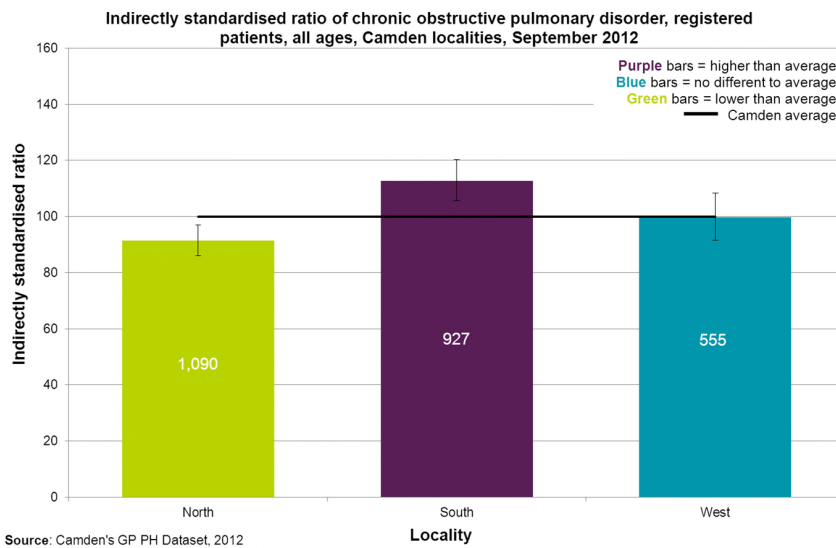
42

Indirectly standardised rates: chronic liver disease



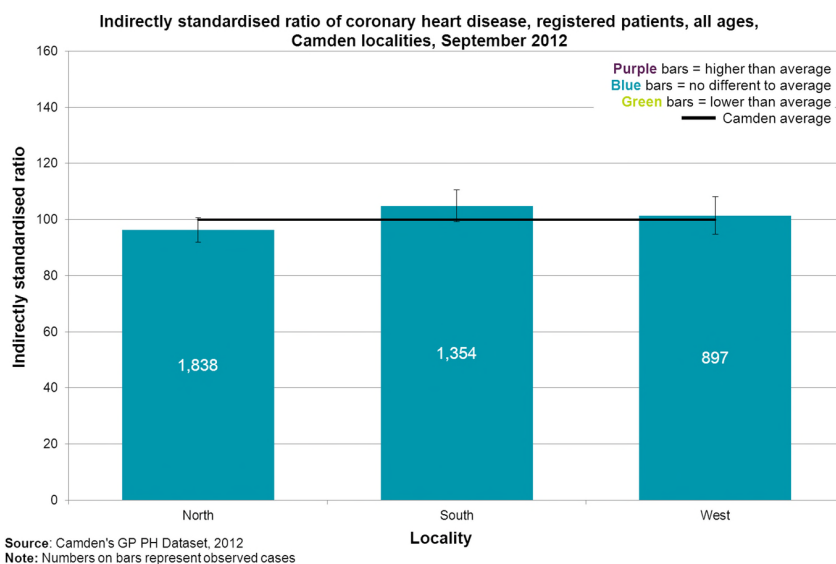
43

Indirectly standardised rates: chronic obstructive pulmonary disorder



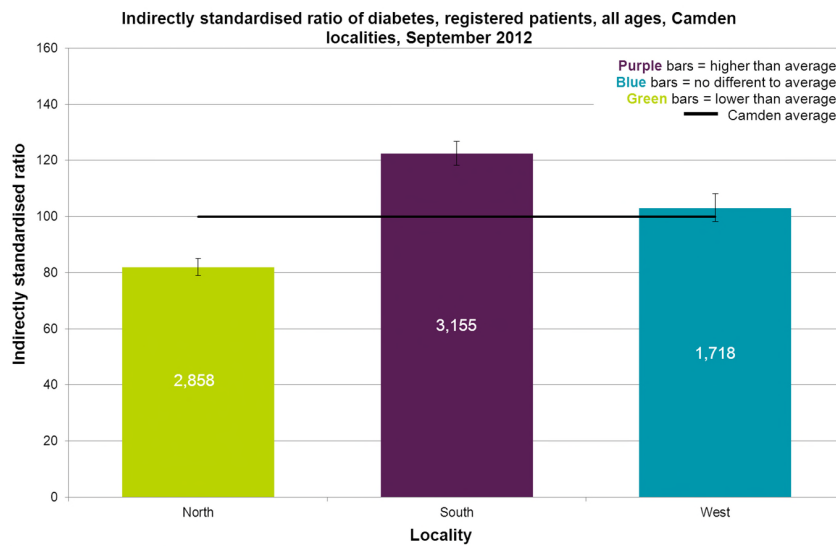
44

Indirectly standardised rates: coronary heart disease



45

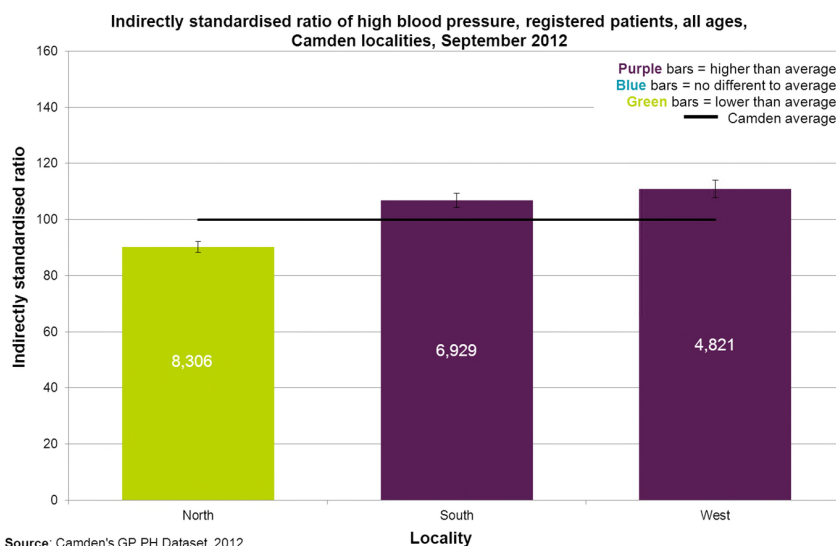
Indirectly standardised rates: diabetes



Source: Camden's GP PH Dataset, 2012

46

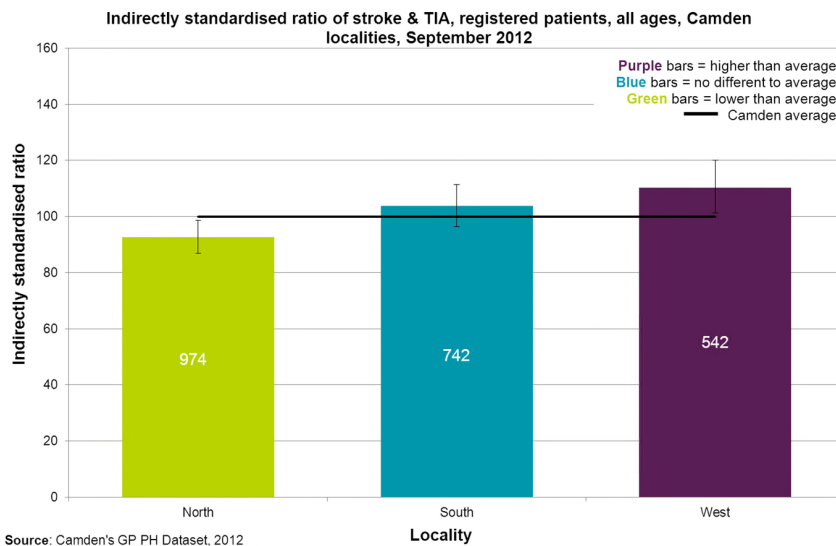
Indirectly standardised rates: high blood pressure



Source: Camden's GP PH Dataset, 2012
 Note: Numbers on bars represent observed cases

47

Indirectly standardised rates: stroke & TIA



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 Camden's Public Health Intelligence team undertake epidemiological analysis on a wide range of data sources.

All of our profiles, as well as other data and outputs can be accessed on the Camden Data website at: <http://www.camdendata.info/Pages/public-health.aspx>

FURTHER INFORMATION & FEEDBACK

This profile has been created by Camden and Islington's Public Health Intelligence team. For further information please contact Maria Verdecchia, Public Health Information Analyst.

Email: publichealth.intelligence@islington.gov.uk, **Tel:** 020 7527 1258

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.

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