

CAMDEN JSNA: FOCUS ON

HIGH BLOOD PRESSURE (HYPERTENSION)

JULY 2017

High blood pressure (known as **hypertension**) affects more than one in four adults in England, and is the second largest risk factor for premature death and disability. Improvements in tackling blood pressure in the last decade have prevented or postponed many thousands of deaths, but it is estimated that only four in ten of all adults with high blood pressure are both aware of their condition and managing it to recommended levels.¹

Blood pressure is recorded with two numbers. Systolic pressure (the higher number) is the force at which your heart pumps blood around your body. Diastolic pressure (the lower number) is the resistance to the blood flow in your blood vessels. High blood pressure (HBP) is usually defined as 140/90 mmHg or above and is a major risk factor for stroke, heart attack, heart failure, chronic kidney disease, cognitive decline and premature death.

Facts and figures

- High blood pressure is the most common long term condition in Camden: 9.15% (23,452 people) in Camden have been diagnosed with hypertension.
- It is estimated that there are a further 21,163 people with undiagnosed high blood pressure in Camden.
- 23% of people with diagnosed hypertension in Camden still have blood pressure that is too high. This is likely to be due to several factors.

Measures for reducing inequalities

- Population interventions and policies which encourage physical activity, reductions in alcohol consumption and promote healthy food options will lead to a reduction in the inequalities in high blood pressure by addressing risk factors.
- In Camden, community NHS Health Checks are targeted at the hardest-to-reach groups, in which high blood pressure is more prevalent, helping to reduce inequalities in the detection of hypertension.

Population groups

- The risk of developing high blood pressure increases with age.
- In the UK, high blood pressure is more common among: black Caribbean men and women; black African men and women; Chinese women; Irish men; Indian men and women; and Pakistani women.
- The burden of high blood pressure is greatest among people from low-income households and those living in areas of higher deprivation.

National & local strategies

- The Blood Pressure System Leadership Board published a national strategy 'Tackling high blood pressure: From evidence into action' in 2014.
- NICE have published several guidelines on hypertension, including CG127 on diagnosis and management in adults.
- The NHS Health Check is a health check-up for all adults in England aged 40-74, and includes a blood pressure measure.
- Locally, the Camden Health and Wellbeing Strategy (2016) addresses some of the key risk factors for high blood pressure.

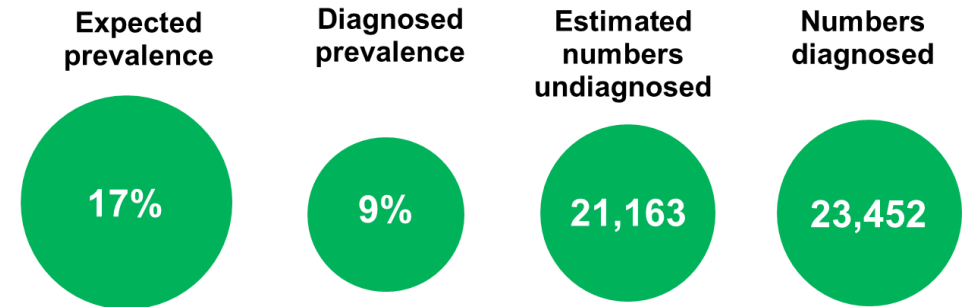
SETTING THE SCENE: THE CAMDEN PICTURE

How many people have high blood pressure?

9% of people (23,452 people) in Camden have been **diagnosed** with high blood pressure, slightly lower than London (11%) and England (14%).²

8% of people are estimated to have **undiagnosed** high blood pressure in Camden (21,163 people), slightly lower than London (11%) and England (12%).²

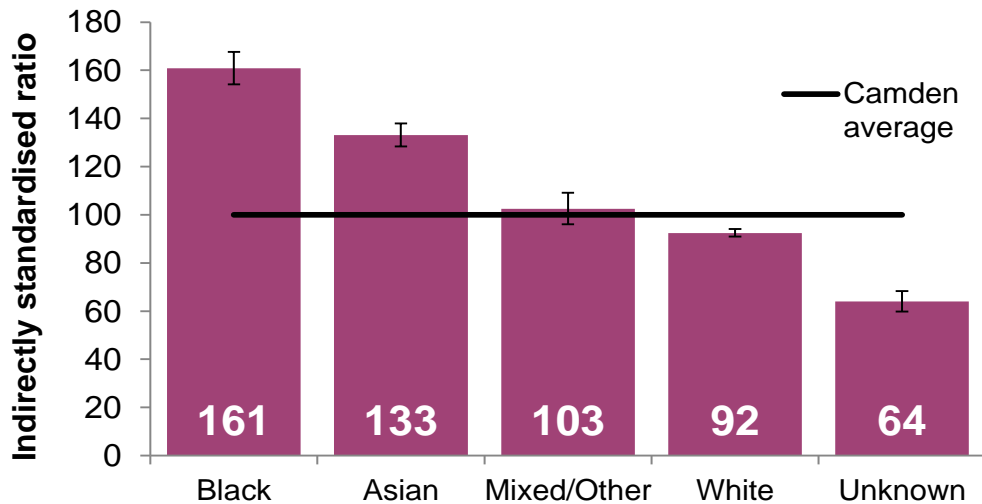
Expected vs. diagnosed high blood pressure in Camden (2016)



Source: Hypertension prevalence models ²

Who has high blood pressure?

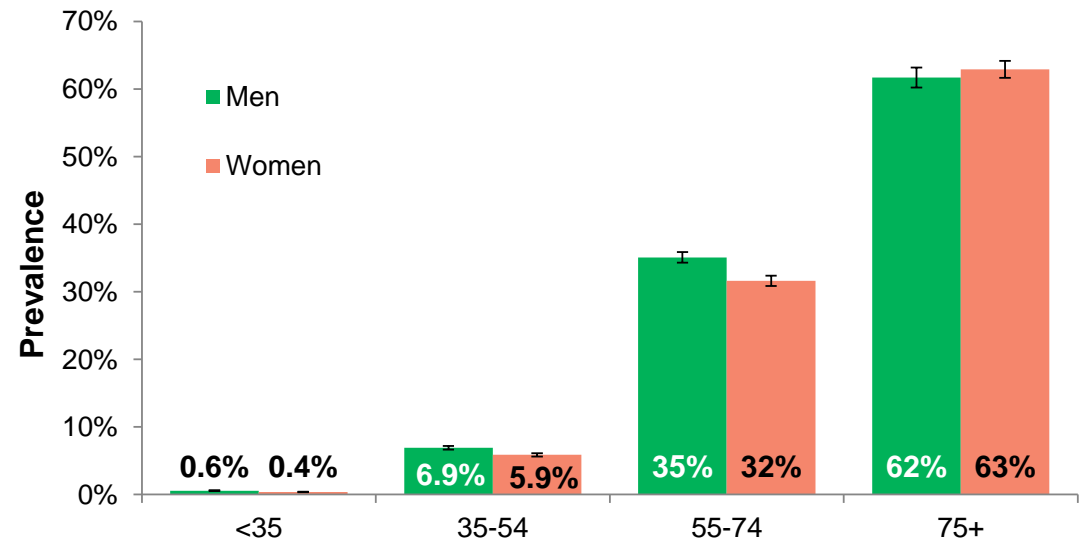
Hypertension prevalence by ethnicity, Camden (2015)



Source: GP Public Health Dataset, 2015

Black people in Camden have a hypertension prevalence that is 61% higher than the Camden average, while white people have a hypertension prevalence that is 8% lower than the Camden average.³

Hypertension prevalence by age and gender, Camden (2015)

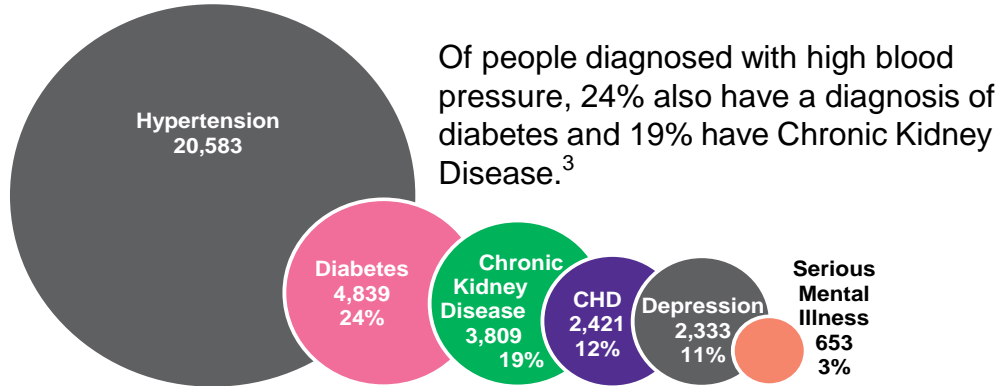


Source: GP Public Health Dataset, 2015

SETTING THE SCENE: THE CAMDEN PICTURE

What other conditions do people with high blood pressure have?

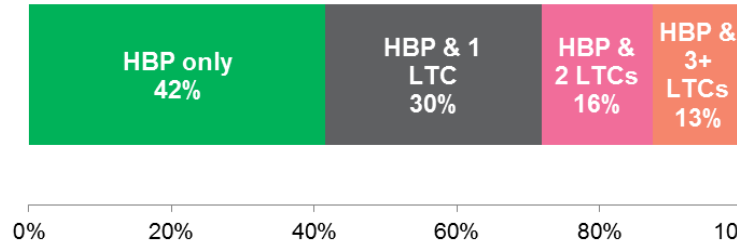
Additional long term conditions among the Camden population with diagnosed high blood pressure (2015)



Of people diagnosed with high blood pressure, 24% also have a diagnosis of diabetes and 19% have Chronic Kidney Disease.³

Source: GP Public Health Dataset, 2015

Number of long term conditions among the Camden population with high blood pressure (2015)



29% of people diagnosed with high blood pressure have two or more other diagnosed long term conditions (LTCs).³

Source: GP Public Health Dataset, 2015

How well is high blood pressure being managed?

70% of patients with diabetes had a blood pressure reading of 140/80 or less within the last 12 months in 2015/16, similar to the London and England percentages (both 70%).⁴

85% of patients with a history of stroke or TIA (transient ischaemic attack) had a blood pressure reading of 150/90 or less within the last 12 months in 2015/16, slightly higher than the London and England percentages (both 84%).⁴

Detecting high blood pressure

91% of patients aged 45+ have had a blood pressure reading in the past 5 years as of 2014/15, the same as the national percentage (91%).⁴

High blood pressure was the most common CVD (cardiovascular disease) diagnosis following a NHS Health Check from 2010-15.⁵

Inequalities in managing high blood pressure

18% of people with diagnosed hypertension of black ethnicity (with a blood pressure reading in the past year) in 2014/15 had blood pressure that was too high, compared to 13% of white people and 11% of Asian people.³ This is likely to be due to several factors.

26% of people aged 18-39 with diagnosed hypertension (with a blood pressure reading in the past year) in 2014/15 had blood pressure that was too high, compared to 18% of people aged 40-64 and 11% of people aged 65-79.³ This is likely to be due to several factors.

9 GP practices had a significantly higher percentage of patients with hypertension whose blood pressure was managed to an adequate level, compared with the Camden average (2015/16). These practices were primarily in the Kings Cross and Belsize wards.⁴

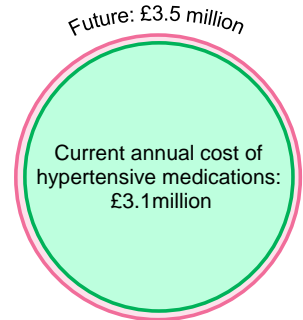
7 GP practices had a significantly lower percentage of patients with hypertension whose blood pressure was managed to an adequate level, compared with the Camden average (2015/16). These practices were primarily in the St Pancras and Somers Town and Kentish Town wards.⁴

FUTURE NEED

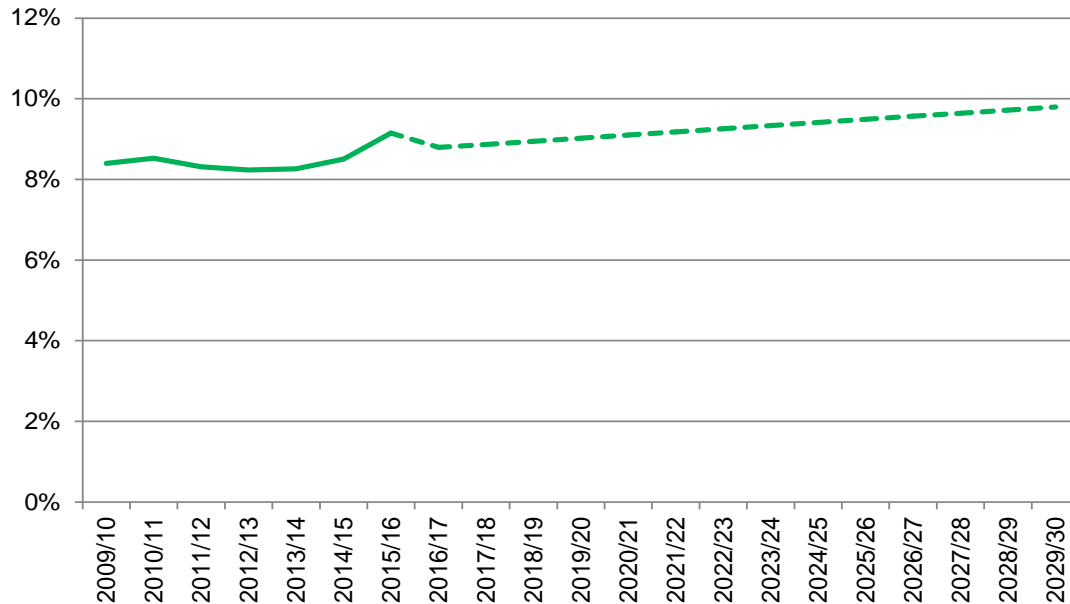
If the trend in hypertension prevalence continues, the recorded prevalence of those diagnosed with hypertension is predicted to increase from 9.15% in 2015/16 to 9.80% in 2029/2030, from 23,452 adults to a predicted 26,400 adults.⁴

Current and future costs of hypertensive medication

Based on current and predicted hypertension prevalence in Camden and the average annual cost of anti-hypertensive medications it is possible to model the current and future cost of hypertensive medications in Camden.⁶



Predicted trend in diagnosed hypertension prevalence 2009/10 to 2029/30, Camden



Source: Model using QOF indicators 2015/16

Achieving the Canadian model:

Canada has seen substantial improvements in their detection and management of hypertension with the successful implementation of a hypertension programme.^{7,8} Currently approximately 7 in 10 Canadian adults with high blood pressure are both diagnosed and controlled to recommended levels. This experience demonstrates that it is possible to achieve high levels of hypertension control with similar resource use to current levels in the United Kingdom.

Hypertension is associated with a higher risk of stroke and heart attack. Each stroke costs around £25,000 in combined health and social care costs. The average cost to treat one heart attack is around £4,000.⁹

If Camden matched the achievement of Canada in hypertension detection and control, nearly 15,000 more people would have their hypertension detected and their blood pressure controlled. This would prevent an estimated 160 strokes and 70 heart attacks over a five year period. This would yield over £4 million in savings over the course of five years.⁹

WHAT INFLUENCES THIS TOPIC?

High blood pressure is often preventable, and is worsened by poor lifestyle behaviours and other modifiable risk factors. There are also non-modifiable risk factors associated with blood pressure, such as age and ethnicity, described in the tables below.¹

Table 1. Key non-modifiable risk factors for high blood pressure ¹	
Older age	Increasing age is associated with increasing systolic blood pressure, thought to reflect the length of time people are exposed to modifiable risk factors
Family history	Research on twins suggest that up to 40% of variability in blood pressure may be explained by genetic factors
Ethnicity	High blood pressure is more common among: black Caribbean men and women; black African men and women; Chinese women; Irish men; Indian men and women; Pakistani women
Gender	For all ages up to 65 years, women tend to have a lower blood pressure than men. After 65 years, this relationship is reversed
Deprivation	The burden of high blood pressure is greatest among people from low-income households and those living in deprived areas. The Health Survey for England identified that the prevalence of high blood pressure increased from 26% of men and 23% of women in the least deprived quintile to 34% and 30% in the most deprived quintile

The following page describes the modifiable risk factors and lifestyle behaviours that are associated with high blood pressure, as well as the inequalities in how these risk factors are distributed across the population.

WHAT INFLUENCES THIS TOPIC?

Table 2. Key modifiable risk factors for high blood pressure¹

Risk factor	Evidence	Inequalities
Excess weight	There is a strong and direct relationship between excess weight and high blood pressure. Obesity multiplies the risk of developing high blood pressure about threefold in men and fourfold in women	Obesity is far more common in women in the lowest household income quintiles (24-26%) compared to the highest (13-17%). There is not a significant relationship of income to Body Mass Index (BMI) in men, though obesity decreases with educational attainment
Excess dietary salt	The Scientific Advisory Committee on Nutrition identified a strong association between salt intake and high blood pressure	Levels of salt consumption (relative to guidelines) are higher among younger people, ethnic minorities and people from lower socio-economic groups
Lack of physical activity	Large studies have shown a link between habitual physical inactivity and high blood pressure – one found a reduction in risk of developing high blood pressure of up to 52% in those who exercise regularly and maintain their cardiovascular fitness	People in least prosperous areas are twice as likely to be physically inactive as those living in more prosperous areas (38.5% compared to 17.2%)
Excessive alcohol	Heavy habitual consumption of alcohol is linked to raised blood pressure. Blood pressure rises, in some cases to dangerous levels, when large amounts of alcohol are consumed – particularly when binge drinking	Adults living in households in the highest income quintile were twice as likely to have drunk heavily (exceeding 8 units for men, 6 units for women, on one day) in the previous week – 23% versus 10% in the lowest income quintile
Psychosocial stress	Blood pressure may persistently increase over a longer period in relation to a wide range of stressful situations	Social and psychological circumstances can cause long-term stress, for example continuing anxiety, insecurity, low self-esteem, social isolation and lack of control over work and home life. In industrialised countries, those in lower socioeconomic groups are more likely to experience these stresses than those in higher groups

WHAT WORKS?

Public Health England has published evidence-based advice on how to effectively identify, treat and prevent hypertension in the report *Tackling high blood pressure: from evidence into action*.¹

Prevention

- reducing salt consumption and improving overall nutrition at population-level
- improving calorie balance to reduce excess body weight at population-level
- personal behaviour change on diet, physical activity, alcohol and smoking, particularly prompted through individuals' regular contacts with healthcare and other institutions

NICE carried out a meta-analysis of randomised trials on the impact of various lifestyle changes to reduce blood pressure.¹⁰ The three interventions with the greatest and most certain reductions in high blood pressure were:

- dietary change to achieve weight loss (principally calorie reduction)
- multiple intervention (principally combining physical activity with dietary change)
- salt reduction (which showed the greatest certainty of impact of any change)

Detection

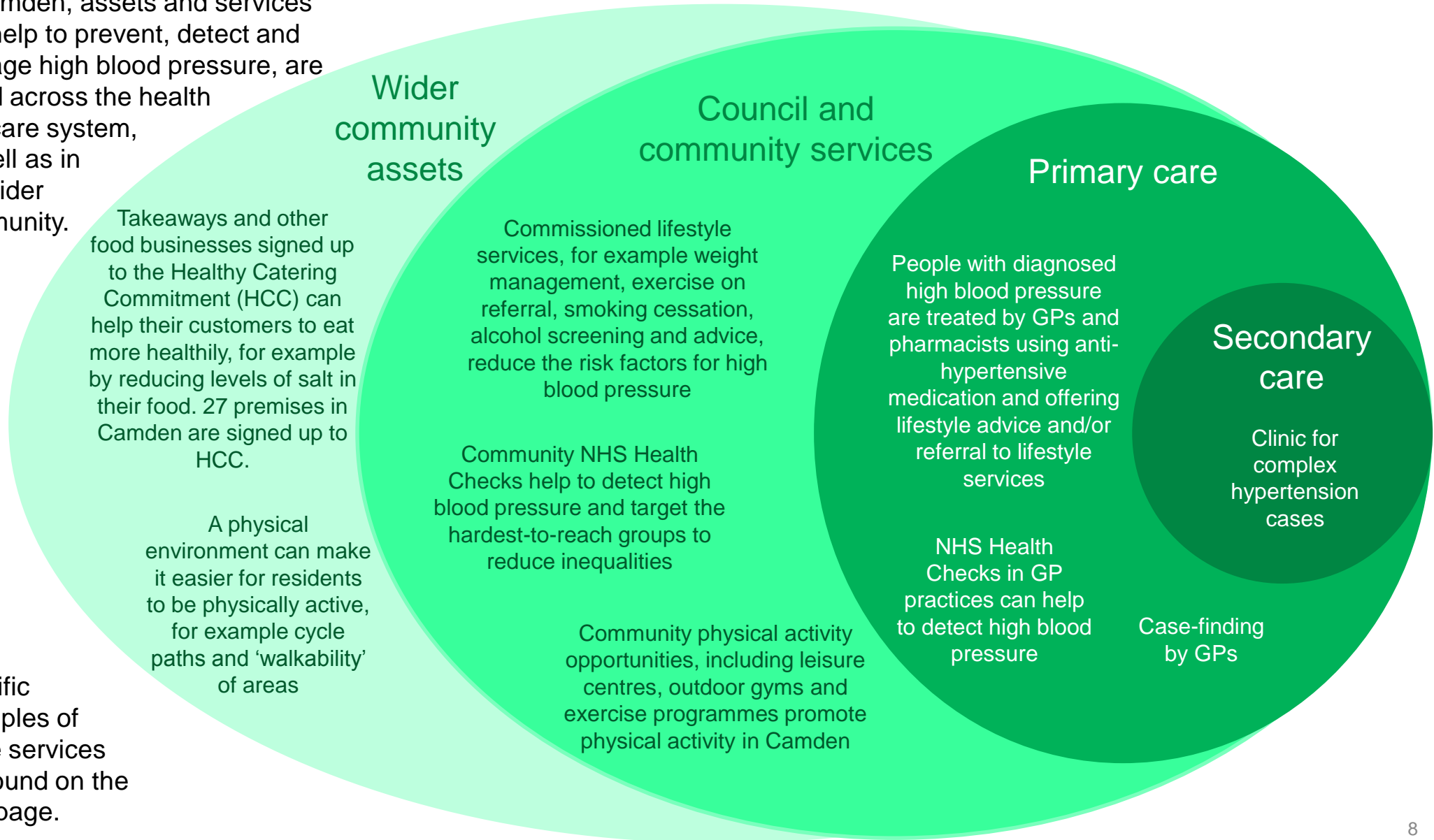
- more frequent opportunistic testing in primary care, achieved through using a broader range of health care professionals (nurses, pharmacy etc.), and integrating testing into the management of long term conditions
- improving take-up of the NHS Health Check, a systematic testing and risk assessment offer for 40-74 year olds
- targeting high-risk and deprived groups, particularly through general practice records audit and outreach testing

Management

- local leadership and action planning for system change, to tackle particular areas of local variation, and achieve models of person-centric care
- health professional support (communication, tools and incentives) to bring practice nearer to treatment guidelines where this falls short
- support adherence to drug therapy and lifestyle change, particularly through self-monitoring of blood pressure and pharmacy medicine support

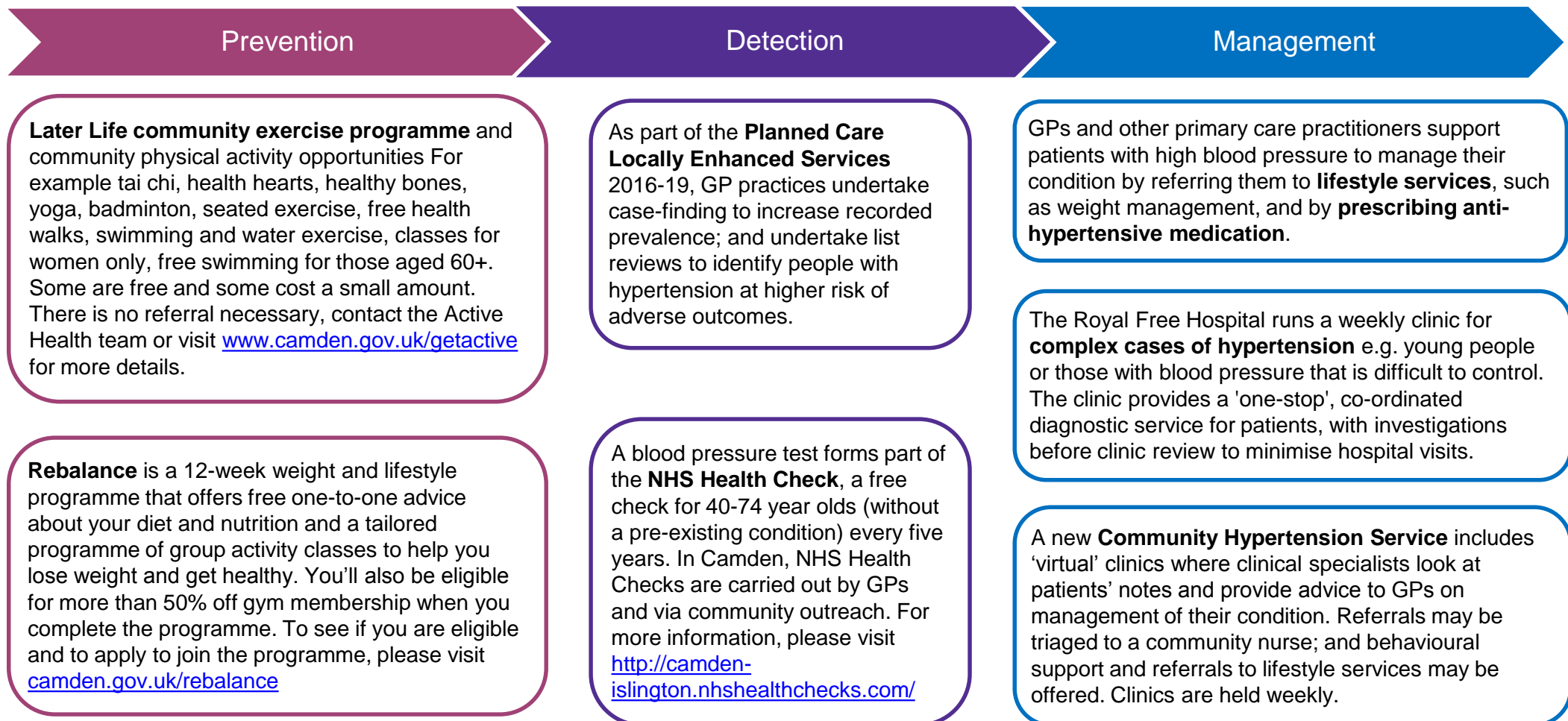
In Camden, assets and services that help to prevent, detect and manage high blood pressure, are found across the health and care system, as well as in the wider community.

Specific examples of these services are found on the next page.



ASSETS AND SERVICES

Assets and services across Camden focus on the detection and management of high blood pressure, as well as interventions to reduce risk factors such as excess weight, lack of exercise and smoking. Below are some examples of services in Camden.



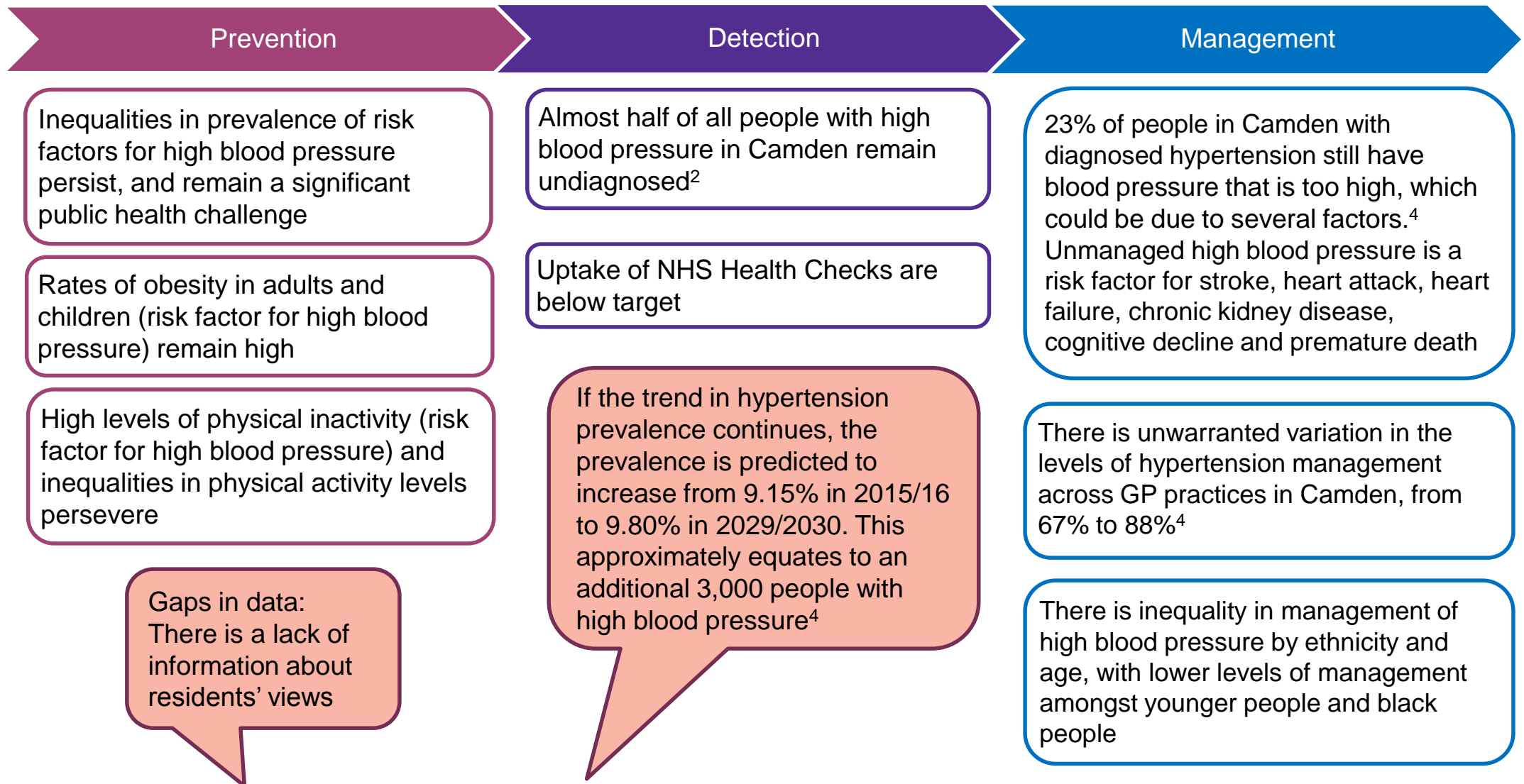
TARGETS & OUTCOMES

- High blood pressure, as the leading risk factor for cardiovascular disease and CVD mortality, is a local and national priority. Actions to identify high blood pressure earlier and offer timely treatment are included in key national and local strategies and programmes.
- Alongside the targets below, which explicitly focus on the detection and management of high blood pressure, the Camden Health and Wellbeing Strategy 2016-18¹¹ prioritises several areas likely to have an important impact on the prevention of high blood pressure:
 - **Healthy weight, healthy lives.** In the short term, Camden aims to at least double the number of Camden businesses signed up to the Healthy Catering Commitment, from 24 to 50; and to reduce the proportion of Camden residents who are physically inactive by 5%. In the longer-term, we aim to increase to 70% the proportion of Camden residents achieving recommended physical activity levels; to halve the proportion of children aged 10-11 who are obese; and to halt the trend of rising rates of overweight in this age group.
 - **Reducing alcohol-related harm.** In the short term, Camden aims to increase the number of dependent drinkers accessing treatment by 19% - this would be equivalent to 200 additional residents accessing treatment each year; and to increase the number of residents receiving evidence-based interventions for their alcohol use in primary care, so that at least 370 people each year receive enhance brief interventions within primary care. In the longer-term, we are aiming for a 5% reduction in hospital admissions directly related to alcohol.

Table 3. Targets for high blood pressure		
Target	Related document or strategy	Timeframe
45-80% of patients with hypertension in whom the last blood pressure reading (measured within the preceding 9 months) is 150/90 mmHg or less	Quality and Outcomes Framework ¹²	Annual
100% of GP practices establish and maintain a register of patients with diagnosed hypertension	Quality and Outcomes Framework ¹²	Annual
Increase the prevalence of hypertension as measured by practice registers and completing ambulatory blood pressure monitoring/home monitoring testing. A prevalence target is set for each group of neighbourhood GP practices.	Camden CCG service level agreement - Primary Care Universal Offer ¹³	2017/18 to 2018/19
20% of the eligible population offered an NHS Health Check every year	NHS Health Check programme	Annual
66% of people received an NHS Health Check of those offered	NHS Health Check programme	Annual

GAPS: UNMET NEEDS

Challenges remain in meeting the needs (and potential needs) of people with high blood pressure in Camden.



FURTHER INFORMATION

REFERENCES

1. Public Health England (2014) [Tackling high blood pressure: From evidence into action.](#)
2. Camden and Islington Public Health Intelligence. Hypertension Prevalence models, 2015/16, using Public Health England/National Cardiovascular Intelligence Network (2016) Hypertension profiles for Camden [clinical commissioning group](#) (CCG) and [local authority](#)
3. Camden Public Health GP Dataset 2015
4. NHS Digital. Quality and Outcomes Framework 2015-16 (2016). Available from: <http://content.digital.nhs.uk/pubs/qof1516>
5. Camden and Islington Public Health. Health Checks report (2016).
6. Kerr et al. Estimating the financial cost of chronic kidney disease to the NHS in England. *Nephrology Dialysis Transplantation*. October 2012: 27,3. Available from: https://academic.oup.com/ndt/article/27/suppl_3/iii73/1822662/Estimating-the-financial-cost-of-chronic-kidney.
7. Campbell NRC et al. The Canadian effort to prevent and control hypertension: can other countries adopt Canadian strategies? *Curr Opin Cardiol*. 2010 Jul; 25(4):366-72
8. Bolli P et al. Do recommendations for the management of hypertension improve cardiovascular outcome? The Canadian experience. *Int J Hypertens*. 2011: 410754
9. London Hypertension Leadership Group. Hypertension dashboard tool v1.0.
10. NICE Clinical guideline CG127 [Clinical management of hypertension in adults](#). Published date: August 2011, Last updated: November 2016
11. [Camden's Joint Health and Wellbeing Strategy 2016-2018: Living well, working together.](#) January 2016
12. NHS Digital. [Quality and Outcomes Framework](#)
13. [Camden CCG service level agreement - Primary Care Universal Offer](#)
14. [NHS Health Check programme](#)

About Camden's JSNA

[Open Data Camden](#) brings together information held across the organisations into one accessible place. It provides access to evidence, intelligence and data on the current and anticipated needs of Camden's population and is designed to be used by a broad range of audiences including practitioners, researchers, commissioners, policy makers, Councillors, students and the general public.

This factsheet was produced by Laura Stoll, Assistant Public Health Strategist and approved for publication by Sarah Addiman in July 2017.

Contact: JSNA@camden.gov.uk