

7.17 Cardiovascular disease: case finding and treatment

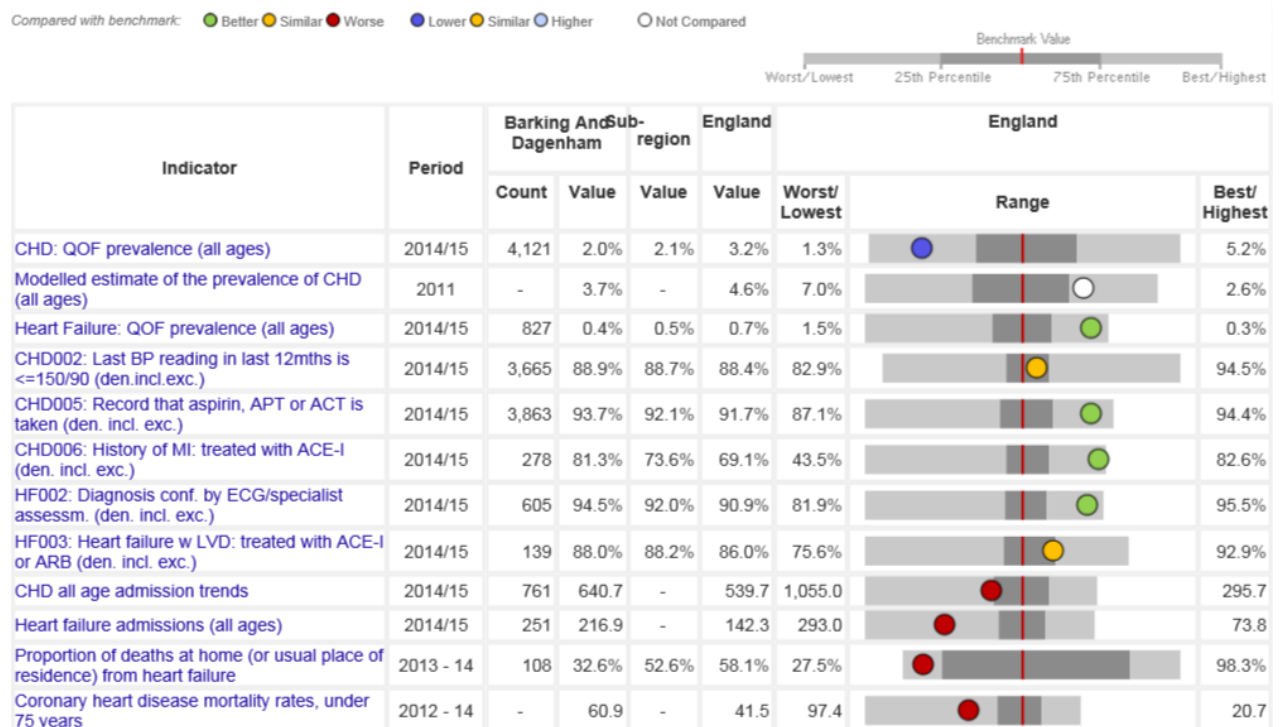
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Cardiovascular Disease (CVD) is a collective term for a range of circulatory diseases including coronary heart disease (heart attack and angina), stroke, atrial fibrillation, heart failure and, in a wider sense, diabetes. CVD is the biggest preventable cause of death in the UK, with particularly high levels of mortality in Barking and Dagenham.

Cardiovascular Disease Local Profile

Barking and Dagenham indicators for cardiovascular disease are compared in Figure 7.17.1¹.

Figure 7.17.1: Cardiovascular Disease Profile, Barking & Dagenham, 2014/15



Source: Public Health England, Cardiovascular Disease Profiles

The data from Figure 7.17.1 shows that LBBB has lower percentage of patients with coronary heart disease, as recorded on practice disease register (2%) than London and England at 2.1% and 3.2% respectively. The figure also shows that LBBB has poor outcomes in relation to the following indicators:

- i). Hospital admission rate (directly standardised, per 100,000 populations) for CHD in 2014/15 at 640.7 was higher than the England average of 539.7.

¹ PUBLIC HEALTH ENGLAND (2014) Cardiovascular disease profiles. [Online] Available from: <http://fingertips.phe.org.uk/profile/cardiovascular/data#gid/1938132736/pat/44/ati/19/page/1/par/E40000003/are/E38000004>. [Accessed 8th October 2014].

- ii). Hospital admission rate (directly standardised, per 100,000 populations) for heart failure in 2014/15 (all ages) at 216.9 is higher than England rate of 142.3 per 100,000 population.
- iii). A very low proportion of heart failure patients in Barking and Dagenham (32.6%) died in their usual place of residence in 2013-14, compared with 52.6% and 58.1% for London and England in that order. This means that most heart failure patients die in hospital rather in their home or in the nursing home where they live. End of Life Care data shows that only one person died in a hospice with heart disease, despite heart failure being known to have a worse prognosis than most of the common cancers.
- iv). Coronary heart disease mortality three year average (2012-14) rates per 100,000 population of under 75 years (age standardised) at 60.9 is higher than the England rate of 41.5.

Based on recorded cardiovascular disease by QOF in 2014/15 for the borough of Barking and Dagenham 1304 people (raw recorded prevalence of 1.25% of the population) have cardiovascular disease, compared to 1.08 and 1.07 for London and England respectively².

The essential steps in decreasing disease, death and hospital admissions for heart and circulatory disease are the following:

- 1) Decreasing and managing risk factors (primary prevention). The most important factor here is the borough smoking rate. Physical inactivity, obesity and poor diet also contribute.
- 2) Decreasing and managing medical risk factors (secondary prevention). This includes effective management of high blood pressure, atrial fibrillation and high cholesterol. The NHS Health Check helps detect high blood pressure, irregular pulse rates and high cardiovascular risk.
- 3) Early and effective treatment of diagnosed disease (tertiary prevention). This includes treating the diseases optimally and this needs to improve in Barking and Dagenham. For example, using the correct drugs, controlling blood pressure, and giving annual influenza vaccination has substantial benefit in heart failure and are primary care treatments.

7.17.1 Cardiovascular risk factors

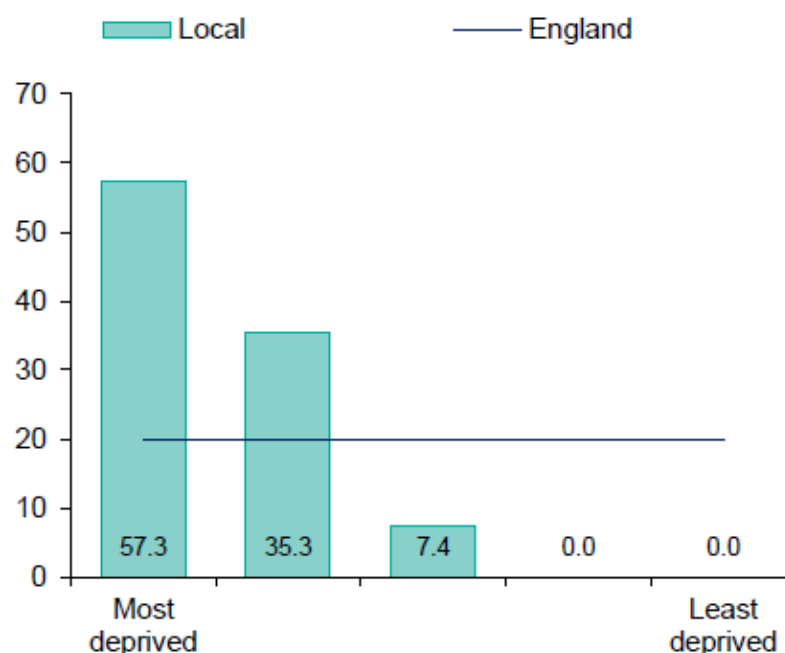
The estimated resident population of NHS Barking and Dagenham CCG in 2015 was around 202,000 and 20,000 of these people are aged 65 and over, a lower proportion than across England as a whole. In NHS Barking and Dagenham CCG:

- 57.3% of people live in the most deprived fifth of areas in England (Figure 7.17.2).

² HSCIC – QOF 2014-15, England, October 2015. 'Recorded disease prevalence, achievements and exceptions' [online] available from: [http://www.hscic.gov.uk/article/2021/Website-Search?productid=19196&q=Quality+and+Outcomes+Framework+\(QOF\)+--+2015-16&sort=Relevance&size=10&page=1&area=both#top](http://www.hscic.gov.uk/article/2021/Website-Search?productid=19196&q=Quality+and+Outcomes+Framework+(QOF)+--+2015-16&sort=Relevance&size=10&page=1&area=both#top) [accessed 27 June 2016]

- In 2015 it was estimated that 21.1% of adults in NHS Barking and Dagenham CCG smoked (Table 17.7.1).
- Between 2012 and 2014 it was estimated that 68.4% of adults in NHS Barking and Dagenham CCG were classified as overweight or obese.
- In 2015 there were 24,641 (11.9% of the population registered with a GP) in NHS Barking and Dagenham CCG with diagnosed hypertension (Table 17.7.1). This was lower than the expected number and 8.5% of adults (around 18,000) could have hypertension that has not been diagnosed.
- In 2014/15 the NHS Health Check was offered to 22.0% of the eligible population of NHS Barking and Dagenham CCG and 12.2% of the eligible population received a NHS Health Check³.

Figure 7.17.2 LBB population deprivation (parentage) by national quintile, IMD 2015



Source: IMD 2015

Table 7.17.1 CVD related Key facts comparison B&D with England, a group of similar CCGs and the London strategic clinical network (SCN).

Key Facts	B&D	Comparator CCG	SCN	England
Population aged 65 and over (per cent)	9.9	9.9	11.5	17.6
Estimated smoking prevalence (per cent)	21.1	20.0	17.8	18.4
Current smokers offered support and treatment (per cent)	93.8	86.4	86.5	85.8
Observed prevalence of hypertension (per cent)	11.9	12.2	11.1	13.8
Expected prevalence of hypertension(per cent)	20.3	21.9	21.2	24.7

Source: Produced by the National Cardiovascular Intelligence Network (NCVIN)

³ National Cardiovascular Intelligence Network (NCVIN), 2016 "Cardiovascular disease profile – Cardiovascular risk factors" [Online] Available from: <http://www.yhpho.org.uk/ncvincvd/default.aspx> [Last accessed: 28 Jun. 16]

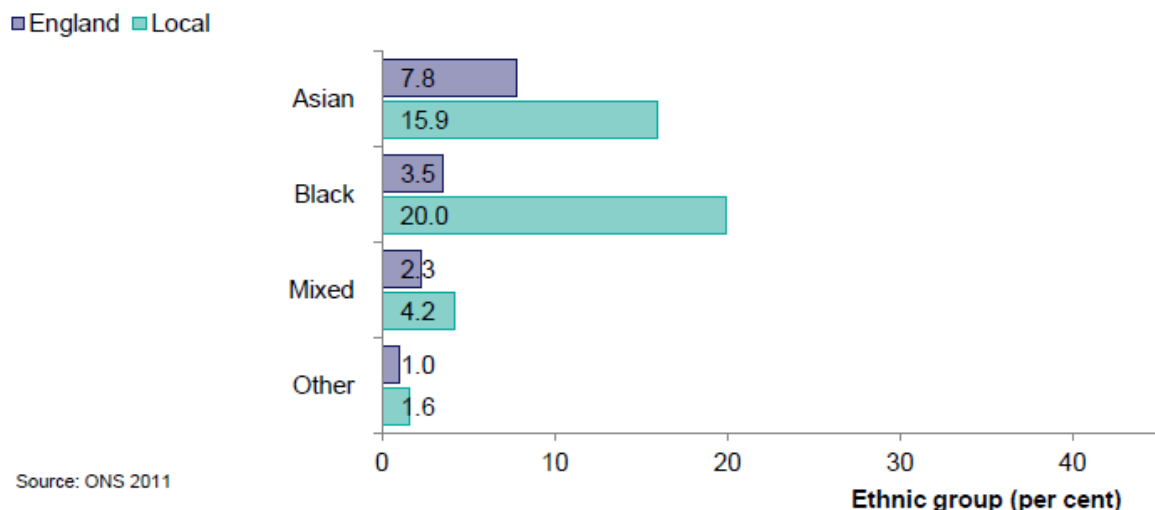
Quantifying non-behavioural risk factors

The prevalence of CVD increases with age, which is important in the light of an ageing population. In 2013 the proportion of people aged 65 and over in NHS Barking and Dagenham CCG was 9.9% which is lower than across England as a whole, where 17.6% of the population were aged 65 and over.

People from a more deprived background are at greater risk of CVD than the general population. In NHS Barking and Dagenham CCG, 57.3% of the population are in the most deprived national quintile and less than 1% of the population in the least deprived⁴.

England has become more ethnically diverse with rising numbers of people identifying with minority ethnic groups in the 2011 Census. The relationship between ethnic group and CVD prevalence is complex. For example, the risk of stroke is higher in south Asian, African or Caribbean populations living in England. In NHS Barking and Dagenham CCG an estimated 41.7% of the population are from Black, Asian, mixed or other groups, compared to 14.6% across England⁵. Figure 7.17.3 compares the percentage of ethnic minorities in Barking and Dagenham with England.

Figure 7.17.3 Minority ethnic group, LBBD and England, 2011 (per cent)



Behavioural risk factors - prevalence⁶

A number of common risk factors are recognised as increasing the likelihood of individuals developing CVD. These include smoking, obesity, physical inactivity, poor nutrition and drinking too much alcohol. Figure 17.7.4 compares the prevalence of: a) smoking, b) Excess weight in adults, c) physical inactivity, d) healthy eating and e) Alcohol related CVD in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England.

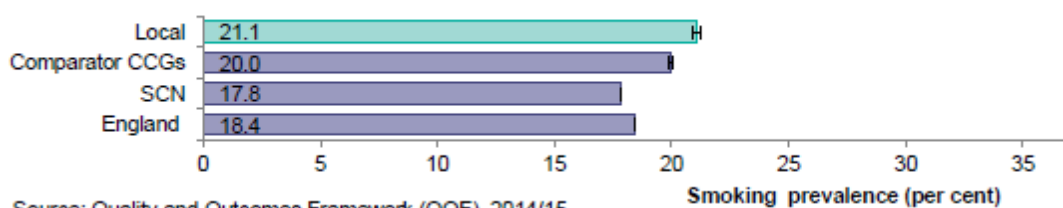
⁴ Ibid

⁵ Ibid

⁶ Ibid

Figure 17.7.4 Prevalence of: a) smoking, b) Excess weight in adults, c) physical inactivity, d) healthy eating and e) alcohol drinking in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England, 2012 to 2014/15

Smoking prevalence, 2014/15 (per cent)

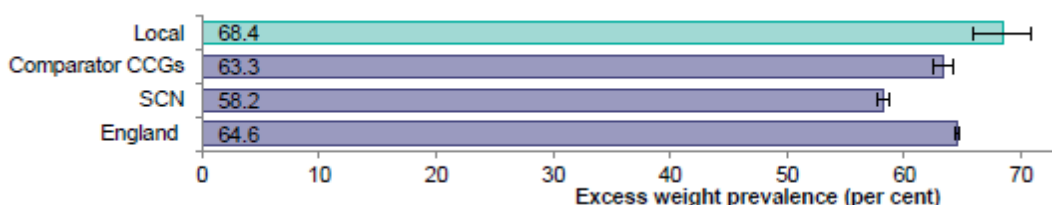


Source: Quality and Outcomes Framework (QOF), 2014/15

(a)

Between 2012 and 2014 it was estimated that 68.4% of adults in NHS Barking and Dagenham CCG were classified as overweight or obese.

Excess weight in adults, 2012 to 2014 (per cent)

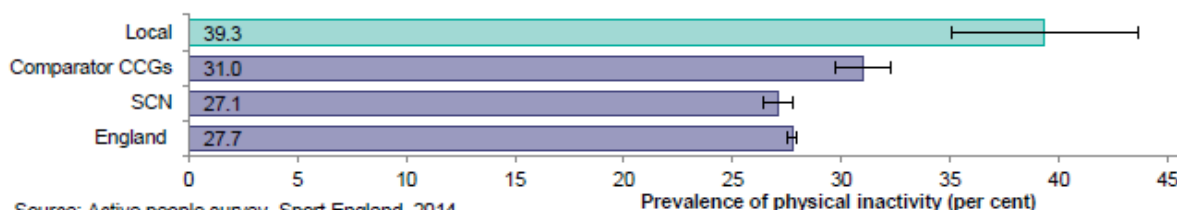


Source: Active people survey, Sport England, 2014

(b)

In 2014 it was estimated that 39.3% of adults in NHS Barking and Dagenham CCG were classified as 'inactive'.

Physical inactivity, 2014 (per cent)

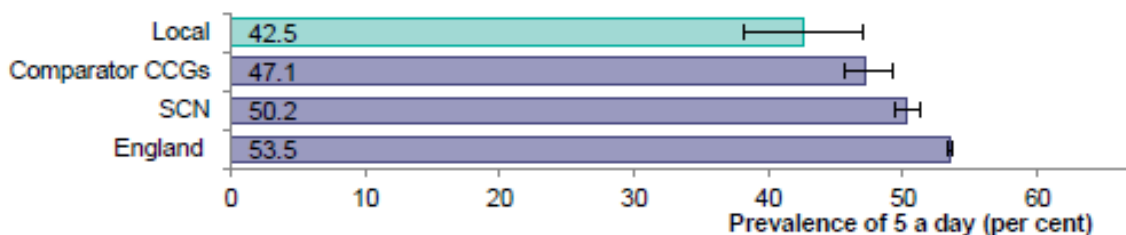


Source: Active people survey, Sport England, 2014

(c)

In 2014 it was estimated that 42.5% of adults in NHS Barking and Dagenham CCG ate five or more portions of fruit and vegetables a day.

Healthy eating (estimated proportion of adults who consume five or more portions of fruit or veg per day), 2014(per cent)

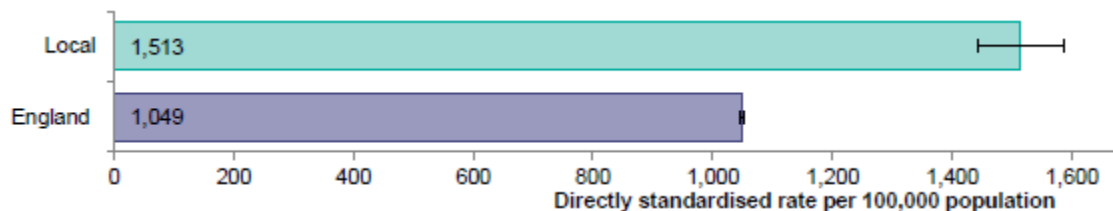


Source: Active People Survey, Sport England 2014

(d)

In 2014 there were 1,513 episodes for alcohol-related cardiovascular disease conditions in NHS Barking and Dagenham CCG.

e) Admission episodes for alcohol-related cardiovascular disease conditions rate per 100,000 population, 2014 (per cent)



Source: Public Health England 2014

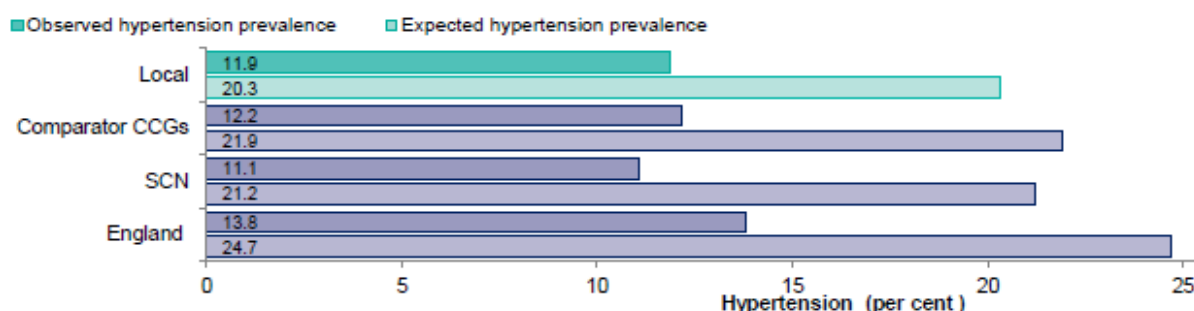
(e)

7.17.2 Hypertension - prevalence

Blood pressure measurements indicate the pressure which the circulating blood puts on the walls of blood vessels. Blood pressure is measured in millimetres of mercury (mmHg) and is usually written as the systolic blood pressure/diastolic blood pressure. Blood pressure measurements are on a continuous scale and therefore there is no specific point at which normotension (normal blood pressure) becomes hypertension (high blood pressure). However, a blood pressure of 140/90 mmHg or greater is usually used to indicate hypertension because persistent levels of blood pressure above this start to be associated with increased risks of cardiovascular events. For the purpose of the Quality and Outcomes Framework (QOF), hypertension is defined as a blood pressure measurement of 150/90. Hypertension is important because when uncontrolled it is a major risk factor for stroke, heart attack, heart failure, aneurysms and chronic kidney disease.

Figure 17.7.5 illustrates the diagnosed and estimated prevalence of hypertension in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England in 2014/15.

Figure 17.7.5 Diagnosed and estimated prevalence (per cent) of hypertension in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England, 2014/15

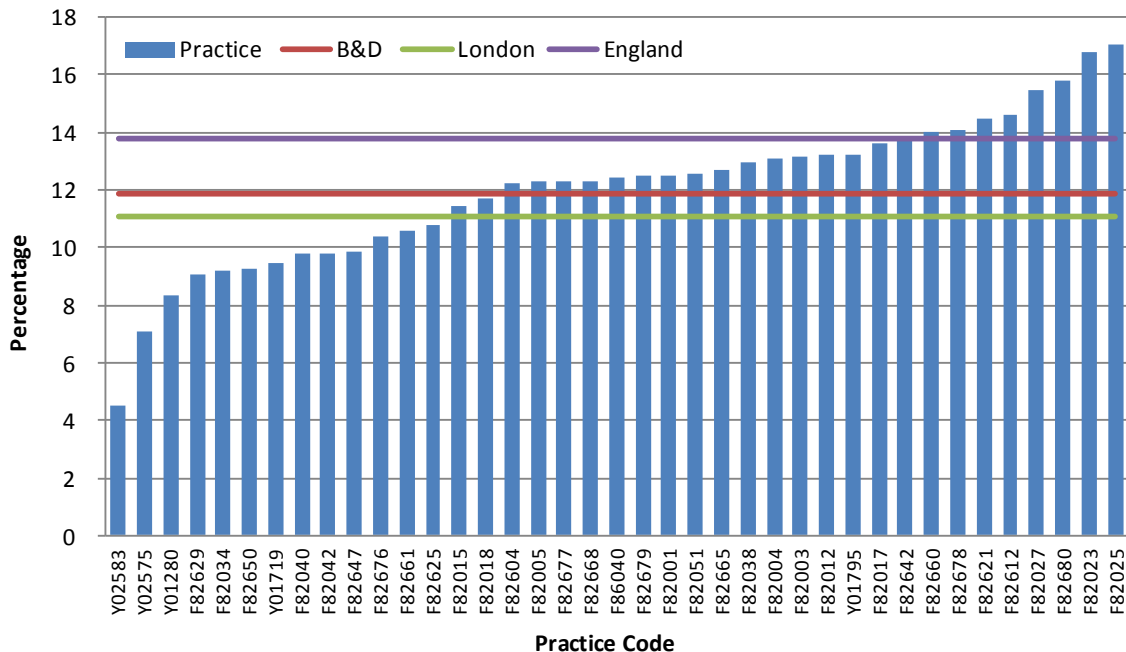


Source: QOF, 2014/15

In 2014/15 there were 24,641 people on GP lists in NHS Barking and Dagenham CCG with diagnosed hypertension. This equated to 11.9% of the population registered with a GP, however, it was estimated the expected prevalence of hypertension in the CCG was 20.3%, meaning that 8.5% or 18,000 adults could have hypertension that has not been

diagnosed. Figure 17.7.6 shows the variation of diagnosed hypertension prevalence (per cent) by LBBB general practice, LBBB, London and England in 2014/15.

Figure 17.7.6 Variation by general practice of diagnosed hypertension prevalence (per cent), 2014/15



Source: QOF 2014/15

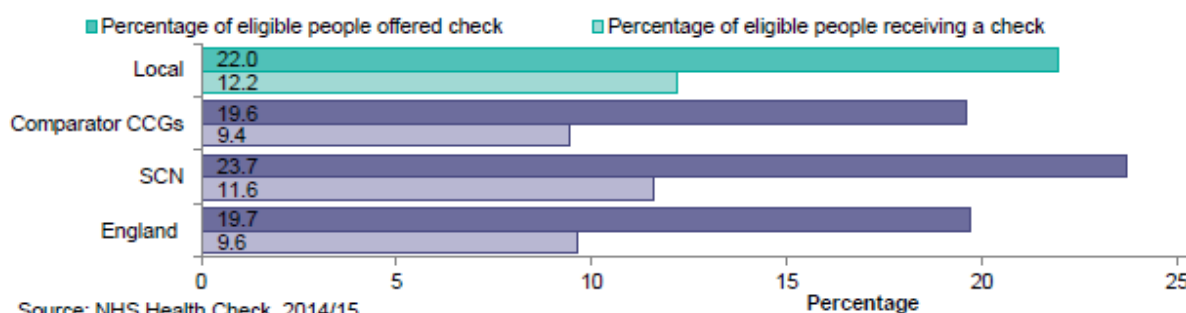
Care processes and treatment indicators

The Quality and Outcomes Framework (QOF) rewards practices for the provision of quality care and helps to standardise improvements in the delivery of clinical care. The risk of developing cardiovascular disease can be reduced in patients with hypertension by careful management of blood pressure and other cardiovascular risk factors such as physical inactivity and smoking.

NHS Health Check Programme

The NHS Health Check programme aims to help prevent heart disease, stroke, diabetes, kidney disease and certain types of dementia. Everyone between the ages of 40 and 74, who has not already been diagnosed with one of these conditions, will be invited once every five years to assess their risk of developing these conditions. They are given support and advice to help them reduce or manage that risk. In NHS Barking and Dagenham CCG in 2014/15 an estimated 43,000 residents were eligible to be offered a Health Check. Local authorities offer the programme to all the eligible population over a five year period. During 2014/15, 22.0% of eligible residents were offered a Health Check and 12.2% of eligible residents received a Health Check. Figure 17.7.7 shows the percentage of eligible people who were offered and received a Health Check in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England in 2014/15.

Figure 17.7.7 Percentage of eligible people who were offered and received a Health Check in Barking and Dagenham (local), comparator CCGs, the London strategic clinical network and England, 2014/15



Quality of care indicators for hypertension

For assessing hypertension care the following eleven Quality Outcomes Framework (QOF) indicators are used. These are all indicators where higher rates indicate better care.

1. Blood pressure control $\leq 140/90$ mmHg in people under 80 with hypertension
2. Blood pressure control $\leq 150/90$ mmHg in all people with hypertension
3. People newly diagnosed with hypertension and at high CV risk who are treated with statins
4. GP lifestyle advice for people newly diagnosed with hypertension
5. GP physical activity assessment in people with hypertension
6. Blood pressure control to $\leq 140/80$ in people with diabetes
7. Blood pressure control to $\leq 150/90$ in people with coronary heart disease
8. Blood pressure control to $\leq 150/90$ in people with a history of stroke/TIA
9. Blood pressure control to $\leq 140/85$ in people with chronic kidney disease
10. % of patients aged 40+ with record of blood pressure in last 5 years
11. GP record of blood pressure reading in previous 9 months in people with hypertension

Practices that are 95% likely to be lower than the England benchmark are referred to as outliers. It is apparent that outliers tend to be clustered in relatively few practices. Six of the 40 practices in the CCG are outliers on three or more hypertensive care indicators. In terms of indicators showing the highest number of outliers practices, worst are 1 (8 practices significantly worse than England rates) and 6 (7 practices significantly worse than England rates).

Quality of care indicators for hypertension – relationship to ambulatory sensitive admissions

The emergency admission rates correlate quite strongly (0.46) with the number of QOF outliers.

Effective management of chronic conditions in primary care is important in reducing complications or avoidable (ambulatory sensitive) hospital admissions.

7.17.3 Heart disease

In 2014/15 there were 4,121 people who had been diagnosed with CHD in NHS Barking and Dagenham CCG. Based upon Health Survey for England results applied to this CCG, the total number of expected CHD cases is likely to be around 7,650.

Early mortality (under 75 years) rates from coronary heart disease are significantly higher than the national rate and they have decreased by 33% since 2004-06.

Getting treatment quickly is important for serious heart attack, where the coronary artery is blocked. In 2014/15, the London ambulance service recorded 94.3% of these patients receiving primary angioplasty treatment within 150 minutes from the time a call for help was made. This is higher than England (87.2%). Primary coronary angioplasty is a procedure used to treat the narrowed or obstructed coronary arteries of the heart.⁷

Heart disease prevalence

The diagnosed prevalence of CHD and heart failure is calculated from the returns submitted to the Health and Social Care Information Centre (HSCIC) as part of the Quality and Outcomes Framework (QOF) by each GP practice. Diagnosed prevalence is the number of all patients who are on a practice's CHD or heart failure register on 31 March in a given financial year. Practice returns are combined to calculate a prevalence rate for the local CCG. The estimated prevalence of CHD is taken from the East of England Public Health Observatory modelled estimates in 2011 for people aged 16 and older, based on diagnosed CHD estimates of the general population. The model was developed using data from the 2003 and 2004 Health Surveys for England and takes into account age, sex, ethnicity, smoking status and deprivation⁸.

Table 7.17.2 and Figure 7.17.8 show the rate of key facts on CHD and heart failure in Barking and Dagenham, England, a group of similar CCGs and the London strategic clinical network in 2014/15.

Table 7.17.2 Key facts, CHD and heart failure, B&D, England, a group of similar CCGs and the London strategic clinical network, 2014/15

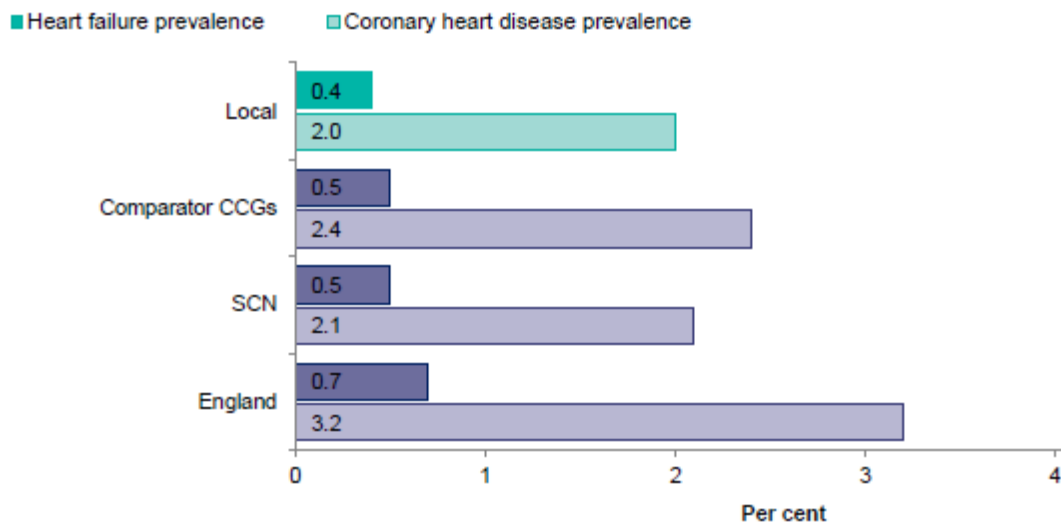
Key Facts	B&D	Comparator CCG	SCN	England
CHD prevalence (per cent)	2.0	2.4	2.1	3.2
Heart failure prevalence (per cent)	0.4	0.5	0.5	0.7
Estimated prevalence of CHD (per cent)	3.7	4.0	3.4	4.6
CHD early mortality(rate per 100,000)	60.9	-	42.9	41.5

Source: HSE, NCVIN

⁷ PHE, London strategic clinical network, 2016 "Cardiovascular disease profile - Heart disease", [online] Available from: <http://www.yhpho.org.uk/ncvincvd/default.aspx> [Last accessed: 28 Jun. 16]

⁸ Ibid

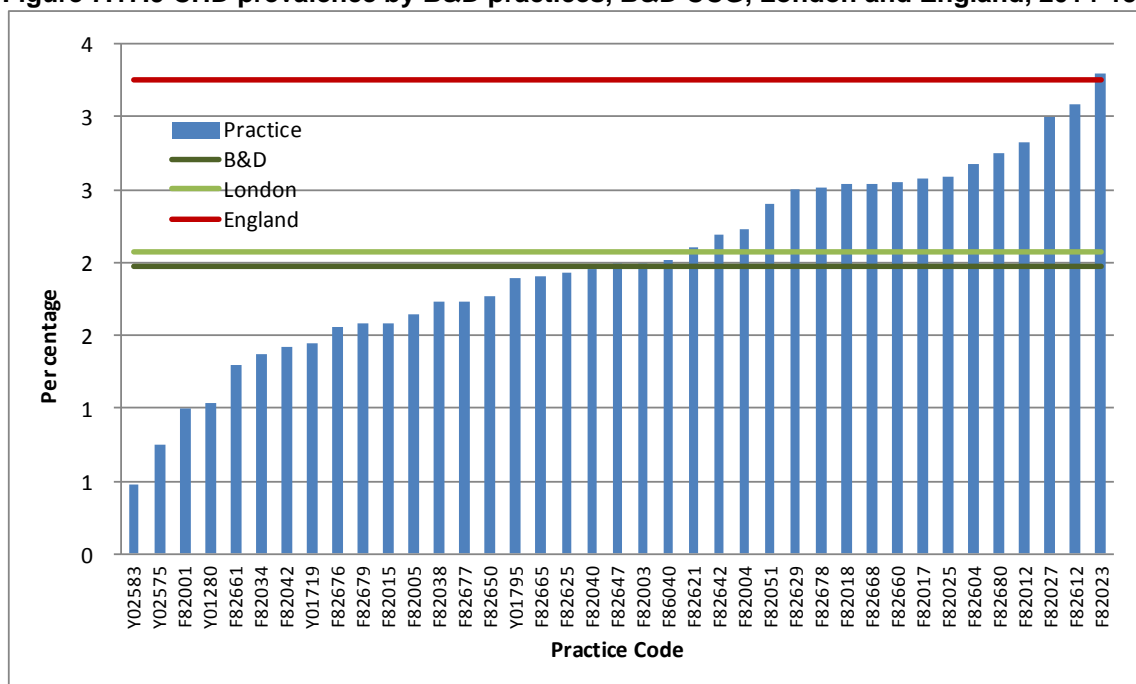
Figure 17.7.8 Coronary heart disease and heart failure prevalence, B&D, England, a group of similar CCGs and the London strategic clinical network, 2014/15



Source: QOF 2014/15

Figure 7.17.9 shows the CHD prevalence by all practices in Barking and Dagenham, Barking and Dagenham CCG, London and England in 2014-15. CHD prevalence between GP practices varies from under 1% to over 3.5%. However, overall the CCG rate is lower than London and national level.

Figure 7.17.9 CHD prevalence by B&D practices, B&D CCG, London and England, 2014-15



Source: HSCIC-QOF

Primary management of heart attack

Specialist treatment, combined with cardiac rehabilitation, leads to better outcomes and optimal quality of life. Heart attack, or myocardial infarction, is part of the spectrum of conditions known as acute coronary syndromes (ACS). This term

includes serious heart attack - referred to as ST Elevated Myocardial Infarction (STEMI) - where the coronary artery is blocked, for which emergency treatment is required to restore blood flow through the arteries quickly. Primary percutaneous coronary intervention (primary PCI), also referred to as coronary angioplasty, if performed in a timely fashion is the recommended treatment for these patients. The London ambulance service recorded 1,157 patients with a first ECG diagnosis in the ambulances that were directly transferred to a specialist centre to receive primary PCI in 2014/15. 94.3% of these patients received primary PCI within 150 minutes of calling for help (call-to-balloon).

Management–hospital admissions

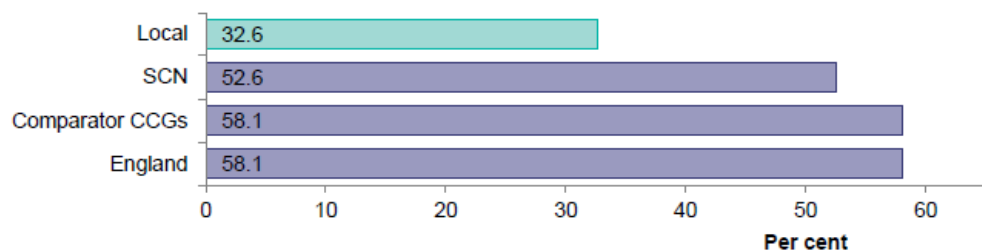
In 2014/15 the admission rate for CHD, in NHS Barking and Dagenham CCG was 640.7 for every 100,000 people in the population (761 admissions). This is significantly higher than England (539.7 per 100,000).

In 2014/15 the admission rate for heart failure for all persons, in NHS Barking and Dagenham CCG was 216.9 per 100,000 (251 admissions)⁹.

Heart failure–deaths at home

The National Institute for Health and Care Excellence (NICE) has identified the need for palliative care in heart failure. Around 40% will die within a year of diagnosis and the quality of life may well be poorer than with other illnesses. Most people would prefer to die at home if there is sufficient support. Figure 7.17.10 compares the percentage of deaths from heart failure that occur at home or place of residence in B&D, England, a group of similar CCGs and the London strategic clinical network during 2013-2014. Figure 7.17.10 shows a very low proportion of heart failure patients in Barking and Dagenham (32.6%) died in their usual place of residence in 2013-14, compared with 52.6% and 58.1% for London and England in that order.

Figure 7.17.10 Percentage of deaths from heart failure that occur at home or place of residence, B&D, England, a group of similar CCGs and the London strategic clinical network, 2013-2014



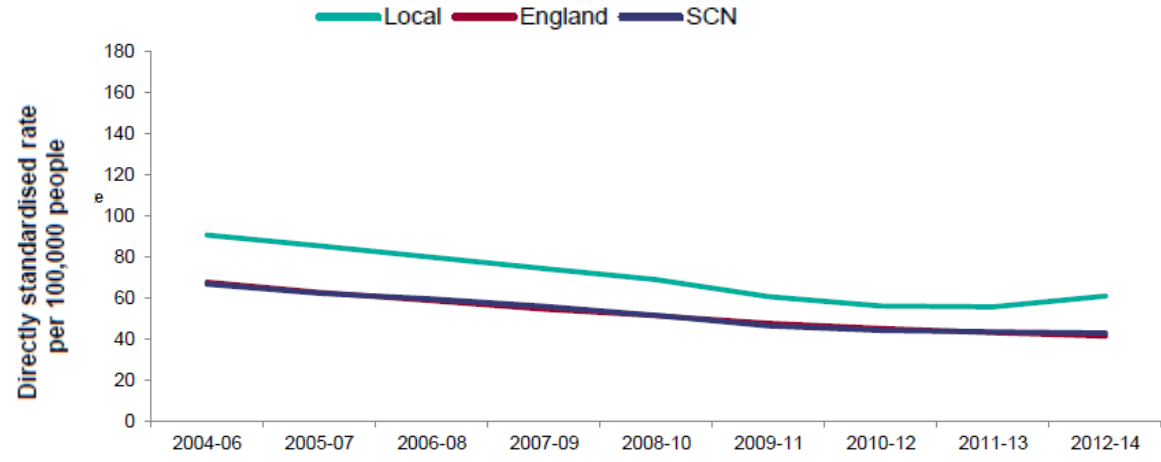
Source: Office for National Statistics (ONS) mortality data 2013, 2014

The Public Health Outcomes Framework includes an objective for reducing numbers of people dying prematurely. One of the indicators for this objective is mortality under 75 from cardiovascular disease and CHD is the largest contributor for cardiovascular disease (45%). Figure 7.17.11 shows in the three year period 2012-14, the early mortality rate for CHD in NHS Barking and Dagenham CCG was 60.9 per 100,000. This is a decrease of 33% since 2004-06. In England, the mortality rate has decreased by 39% over this time period and the rate in the London strategic clinical

⁹ Source: Hospital Episode Statistics (HES), 2004- 2015, Copyright © 2016, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved

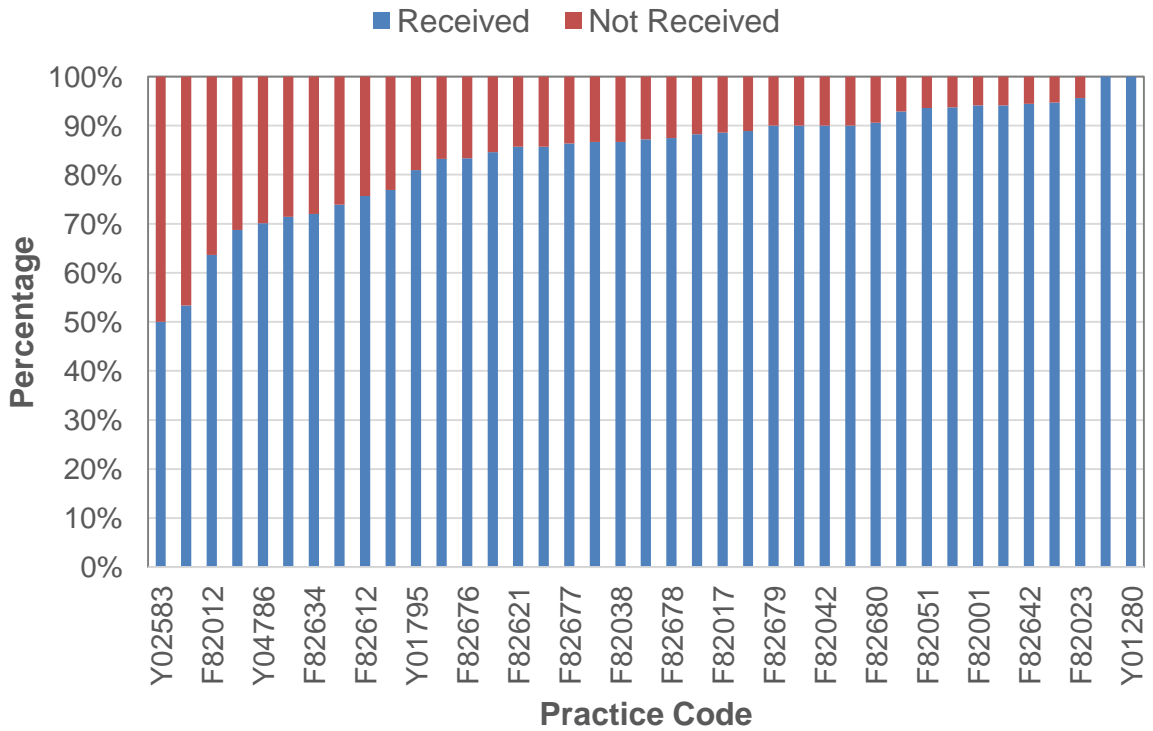
network has decreased by 36%. The gap in mortality rate from CHD between B&D and England and SCN was reduced during 2009-11 to 2010-12 but it has been widened again.

Figure 7.17.11 Early mortality from CHD, B&D, England and Strategic Clinical Network (SCN), 2004-06 to 2012-14 (rate per 100,000 people)



The clinical pathway for management of heart failure involves a number of key drugs; this includes the use of beta blockers. Figure 7.17.12 shows that this highly effective treatment is used in 83.3% of all known people with heart failure.

Figure 7.17.12 – the percentage of those diagnosed with Heart Failure that are being treated with beta blockers, Barking and Dagenham GP Practices, October 2016

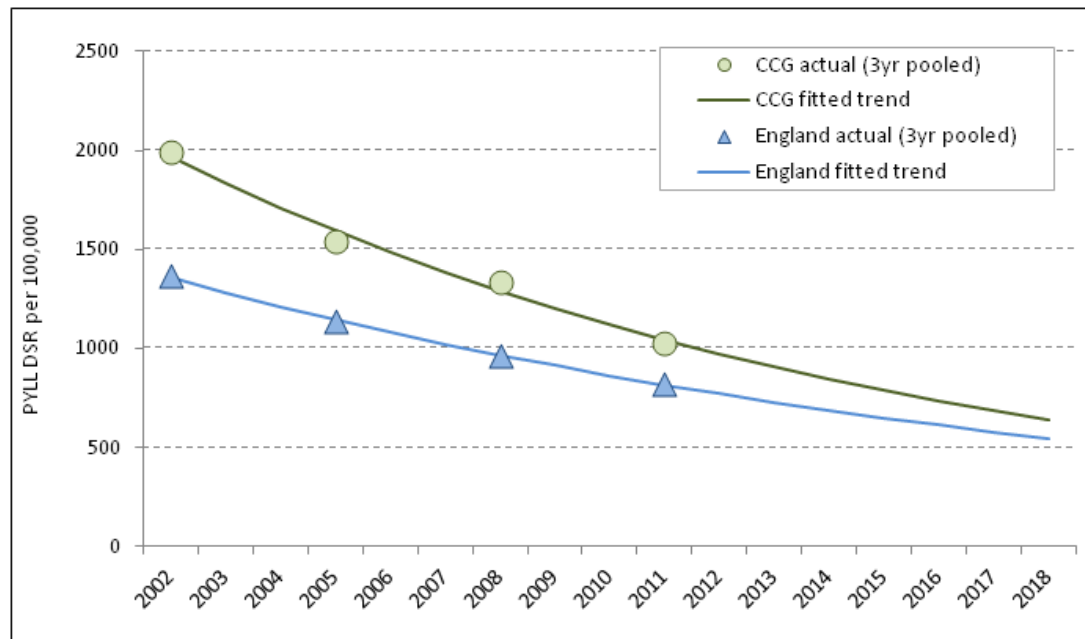


Source: Health Analytics

Potential Years of Life Lost from CHD

Trend in Potential Years of Life Lost (PYLL) from CHD (one of the causes considered amenable to healthcare) per 100,000 of population in Barking and Dagenham and England from 2002 to 2012 and projection of PYLL from 2013 to 2018 is presented in Figure 7.17.13. The graph of 'fitted' PYLL rate for B&D and England below reveals how the local level and trajectory compares to national level.

Figure 7.17.13 NHS Barking and Dagenham CCG (resident population) Coronary Heart Disease - Potential Years of Life Lost DSR



7.17.4 Kidney disease

Chronic Kidney Disease (CKD) is now classified into six stages based on Glomerular Filtration Rate GFR (roughly percentage function) and three levels of proteinuria (protein in the urine). This profile describes the prevalence and management of moderate to severe CKD (ie CKD stages G3–G5 as defined by the National Institute for Health and Care Excellence) and consistent with the Quality and Outcomes Framework (QOF). Stage 3 CKD can be sub classified into 3a and 3b with stage 3b experiencing a higher risk of CVD and end stage renal disease (ESRD) than those in 3a. Presence of proteinuria is associated with a higher risk of ESRD and death independent of CKD stage. The degree of proteinuria (A1 to A3) is recorded alongside the “G” stage and may lead to further treatment options being considered. For further information on classification see the NICE website. Patients diagnosed with CKD benefit from early treatment which can reduce mortality and slow progressive decline in kidney function. Diagnosis also highlights patients at risk of greater harm due to medication side effects and acute kidney injury. The figure

below compares diagnosed (observed) CKD to an estimate of total levels of CKD (diagnosed and undiagnosed) in the population¹⁰.

In 2014/15 there were 3,796 people aged 18 years and over who had been diagnosed with chronic kidney disease (CKD) in NHS Barking and Dagenham CCG. This represents 2.6% of the registered population aged 18 and over. There was wide variation in achievement of the CKD QOF indicators at practice level within the CCG in 2014/15. There were 211 NHS Barking and Dagenham CCG residents receiving renal replacement therapy (RRT) in 2014. The number of residents receiving RRT between 2009 and 2014 has increased by 49.6%. In NHS Barking and Dagenham CCG in 2014 the percentage of people receiving RRT who have had a renal transplant was 44.5%, a further 14.7% received home dialysis and 40.8% received hospital dialysis¹¹.

Table 7.17.3 CKD key facts, B&D, Comparator CCGs, SCN and England, 2014/15

Key facts	B&D	Comparator CCGs	SCN	England
Observed prevalence of CKD (%)	2.6	3.1	2.5	4.1
Estimated prevalence of CKD (%)	4.7	4.8	4.6	6.1
Patients diagnosed with CKD whom the last BP reading is 140/85 or less (%)	76.9	75.1	75.6	74.4
Number of people on RRT	211	-	9,804	49,842
Proportion of people on RRT with transplants (%)	44.5	44.2	47.5	52.4

Acute kidney injury (AKI)

Acute Kidney Injury is now the preferred term for acute renal failure. It is a condition where there is a rapid reduction in kidney function. AKI is normally secondary to another illness, the most common being infection/sepsis or dehydration. There are multiple risk factors for AKI including CKD and long term vascular conditions and AKI may also be responsible for long term progression in the case of CKD. Think Kidneys is a national programme led by NHS England in partnership with the UK Renal Registry, it is the NHS campaign to improve the care of people at risk of, or with AKI (www.thinkkidneys.nhs.uk/aki).

Despite AKI representing a significant cause of preventable patient harm, the exact incidence of AKI is unclear. It is estimated that in the UK up to 100,000 deaths each year in hospital are associated with AKI. Up to 30% could be prevented with the right care and treatment. One in five people admitted to hospital each year as an emergency has AKI, and about 65% of AKI starts in the community.

NHS England issued a Patient Safety Alert 'Standardising the Early Identification of AKI' to all NHS acute trusts with pathology services in June 2014. The alert detailed a nationally endorsed automated algorithm that provides labs with the ability to apply a consistent approach to the detection of AKI. The algorithm is based on changes in serum creatinine concentration and all trusts were expected to comply before April 2015. All positive AKI results are submitted centrally to the UK Renal Registry for collation and analysis. These are fed back to Trusts to drive better outcomes and

¹⁰ PHE, London strategic clinical network, 2016 "Cardiovascular disease profile - Kidney disease", [online] Available from: <http://www.yhpho.org.uk/ncvincvd/default.aspx> [Last accessed: 28 Jun. 16]

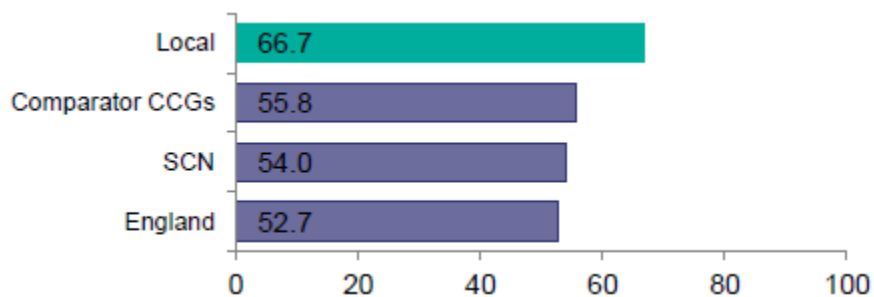
¹¹ Ibid

improved care for patients with AKI, as well as to aid the planning of healthcare services to prevent AKI¹².

Preparation for renal replacement therapy (RRT)

It is clinically advantageous for people with End Stage Renal Disease (ESRD) to be referred to kidney services early to allow consideration of treatment options and for kidney disease and complications such as anaemia to be managed. Renal Association guidelines recommend that haemoglobin (Hb) levels should be 100g/l or higher six months after being seen by a kidney doctor (Hb at start of dialysis is used to estimate these levels). Figure 7.17.14 shows the percentage of RRT patients with haemoglobin greater than 100 g/l in Barking and Dagenham, England, a group of similar CCGs and the London strategic clinical network in 2014. It is estimated that 90 days is sufficient time to receive optimum preparation by the kidney team prior to starting RRT. There are several reasons why Hb levels and 90 days of specialist care may not be achieved, due to clinical or service provision issues. For some CCGs (including B&D) the number of patients is low or the data incomplete and information on late presentation, Hb and home dialysis has been suppressed¹³.

Figure 7.17.14 Percentage of RRT patients with haemoglobin greater than 100 g/l, local (B&D), England, a group of similar CCGs and the London strategic clinical network, 2014



Source: UKRR 2014. The interpretation and reporting of these data are the responsibility of NCVIN and should not be seen as an official policy or interpretation of the UKRR or Renal Association.

Stroke and **Diabetes** will be discussed in separate sections.

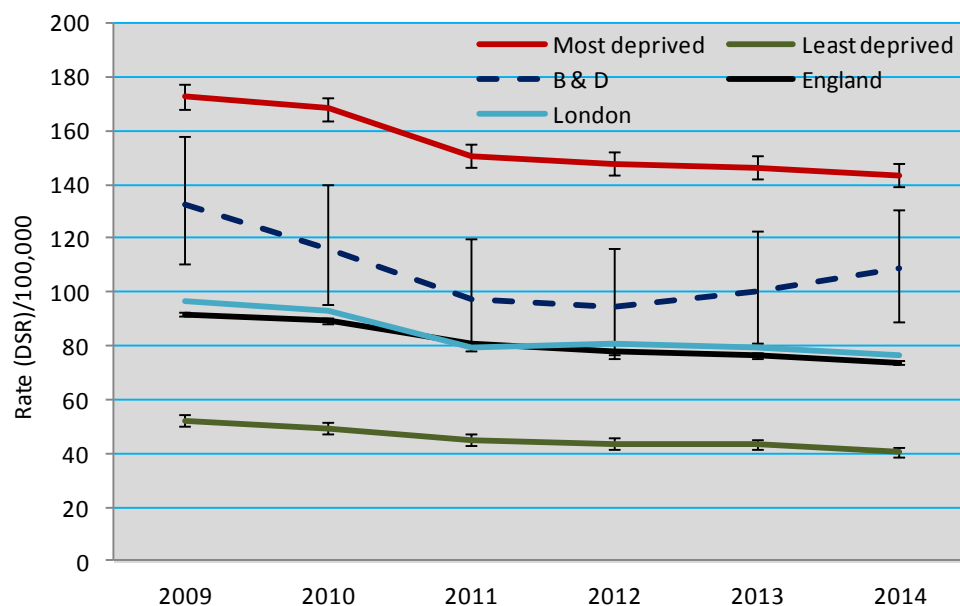
¹² Ibid

¹³ Ibid

Improving life expectancy and reducing mortality

Although life expectancy is increasing in Barking and Dagenham, the gap persists between the rate locally and the London and England average. Data shows the age standardised mortality rate from cardiovascular disease for Barking and Dagenham residents under the age of 75 years in 2014 was 108.6 per 100,000 population, compared with 76.4 for London, 73.8 for England and 40.9 for least deprived area in England. There were 119 deaths in Barking and Dagenham in that year¹⁴ (Figure 7.17.15).

Figure 7.17.15 Under 75 mortality rate (DSR/100,000) from cardiovascular disease (Person), B&D, Most and Least deprived area in England, London, England, 2009-2014



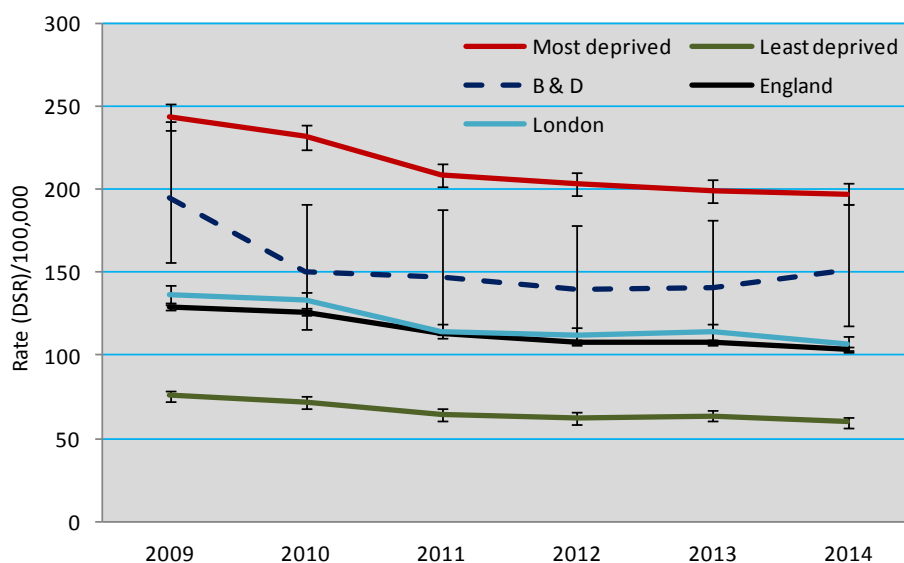
Source: HSCIC - NHS Outcome Framework

The rate remains higher in men (118 per 100,000) than women (49 per 100,000). Figures 7.17.16 and 7.17.17 show the under 75 years old mortality rate (DSR/100,000) trend (2009-2014) from cardiovascular disease for male and female in B&D, Most and Least deprived area in England, London and England.

Collectively, all circulatory diseases represent the greatest cause of premature (age under 75 years) death in the borough.

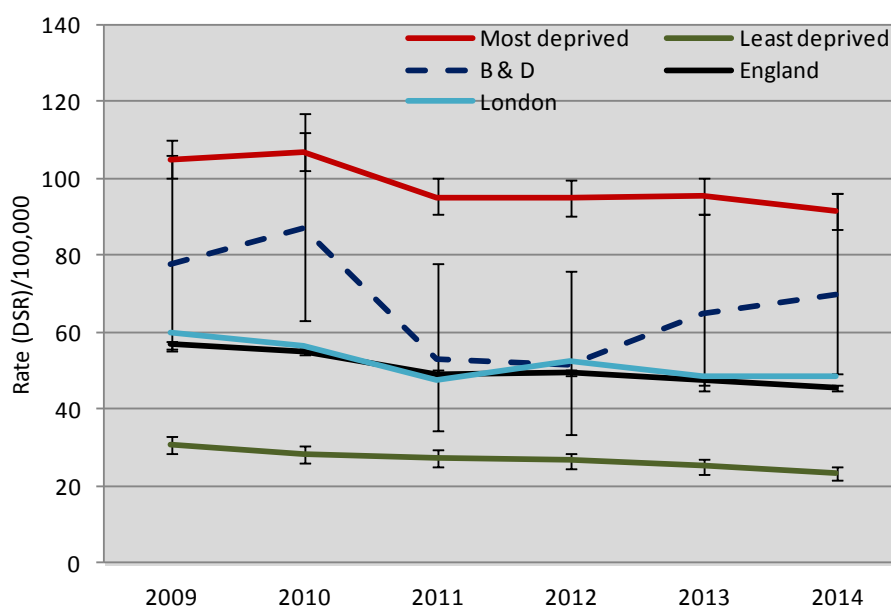
¹⁴ HSCIC-NHS Outcome Framework – Indicator 1.1, February 2016 “Under 75 mortality rate from cardiovascular disease” [Online] Available from: <https://indicators.hscic.gov.uk/webview/> [Last accessed: 6 July 2016].

Figure 7.17.5 Under 75 mortality rate (DSR/100,000) from cardiovascular disease (Male), B&D, Most and Least deprived area in England, London, England, 2009-2014



Source: HSCIC - NHS Outcome Framework

Figure 7.17.6 Under 75 mortality rate (DSR/100,000) from cardiovascular disease (Female), B&D, Most and Least deprived area in England, London, England, 2009-2014



Source: HSCIC - NHS Outcome Framework

In considering prevention, the NHS Health Check provides one of the most cost effective opportunities to improve early detection and intervention rates¹⁵. Addressing secondary prevention, a Department of Health modelling exercise carried out in Coventry in 2008 identified the most effective secondary prevention interventions suggested for reducing CVD related deaths (Table 7.17.4).

¹⁵ NHS (2012) *Health Check costs, benefits and savings*. [Online] Available from: www.healthcheck.nhs.uk/document.php?o=91 [Accessed 8th October 2014].

Note: The *lower* the ‘number needed to treat’ (in the right hand column) the more effective the treatment. These represent the **most effective** secondary prevention options; not the **only** options)

Table 7.17.4 Secondary cardiovascular prevention interventions, numbers needing to receive treatment to avert one death from cardiovascular disease

Assumed treatment coverage of eligible population	Intervention	Outcome	Number needed to treat
100%	Secondary CVD prevention (beta blockers, ACE inhibitors, statin)	One death averted: CHD stroke	65
100%	Anticoagulation therapy (Warfarin) over 65s	One stroke death averted	43
40%	Statins to reduce CVD risk in COPD patients	One CVD related death in a COPD patient	43

Source: Modelling the contribution of evidence-based interventions to achieving life expectancy targets 2010
http://www.lho.org.uk/LHO_Topics/Analytic_Tools/HealthInequalitiesInterventionToolkit.aspx

Inequalities in disease prevalence

The locality needs assessment highlighted that Valence ward has almost double the number of coronary heart disease and circulatory disease deaths compared to the other wards. Using this knowledge enables more targeted case finding and care management and would contribute to closing the health inequality gaps that exists within the borough.

Recommendations for Commissioners

The Clinical Commissioning Group needs to show commitment to the prevention and early detection agenda, and understand the cost benefit of good primary care disease management in reduction of unnecessary hospital admissions.

Commissioners need to consider the creation of a complete package of lifestyle intervention rather than a 'piecemeal' approach.

The Clinical Commissioning Group needs to continue to work toward comprehensive, proactive case finding to identify those at medium or high risk and those with single abnormal measures (for example blood pressure control, cholesterol lowering).

The Clinical Commissioning Group needs to continue to work toward the promotion of self-care and self-management.

All GPs should actively identify and manage atrial fibrillation using the Guidance on Risk Assessment and Stroke Prevention for Atrial Fibrillation Tool.¹⁶

GPs with the poorest QOF outcomes need to be actively encouraged to improve hypertension detection and control, heart failure detection and atrial fibrillation treatments.

Commissioners need to consider the value of a total CVD service review or evaluation to ensure services and cardiac and stroke rehabilitation are in line with best practice and achieving optimal outcomes.

Commissioners across the partnership need to identify how to integrate work on the wider long term conditions agenda to streamline pathways of care, with a focus on putting prevention first, reducing unnecessary hospital admissions, and ensuring early discharge from hospitals.

¹⁶ NHS (2009) *Guidance on Risk Assessment and Stroke Prevention for Atrial Fibrillation (GRASP-AF)*. [Online] Available from: <http://webarchive.nationalarchives.gov.uk/20130221101407/http://improvement.nhs.uk/graspaf/> [Accessed 8 October 2014].