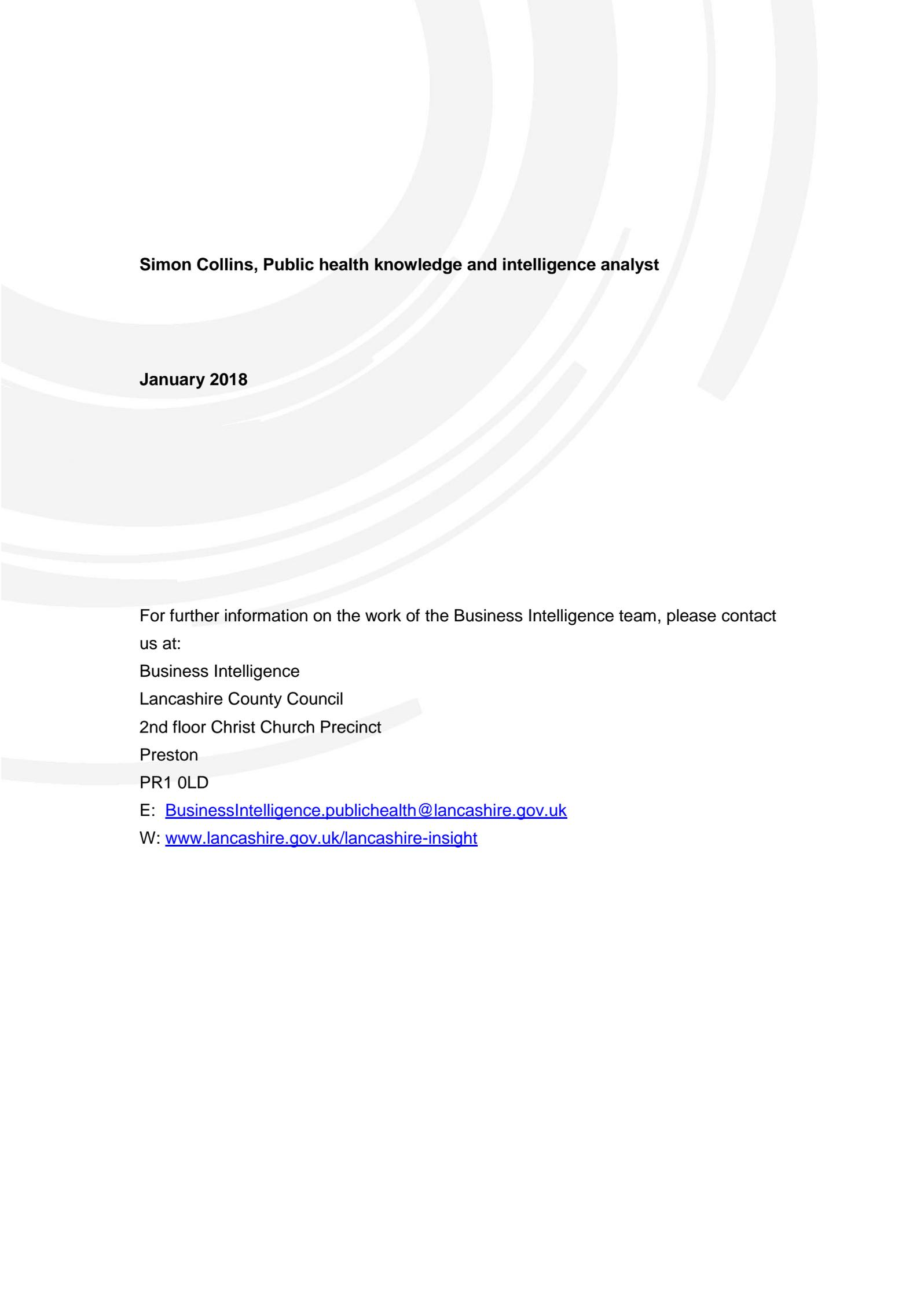




# Cardiovascular disease

Key data findings for the Lancashire-14

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## 1. Overview

Cardiovascular disease (CVD), also known as circulatory disease, refers to diseases of the heart and blood vessels, including angina, coronary heart disease (CHD), heart attack, high blood pressure (Hypertension), peripheral arterial disease (PAD) and stroke. Such diseases are caused by reduced blood flow to the heart, brain or body caused by atheroma or thrombosis and is common in people aged over 60. CVD is one of the biggest causes of death and disability in the UK and is largely preventable with a healthy lifestyle.

The main causes of CVD include [tobacco use](#), [physical inactivity](#), an [unhealthy diet](#) and [harmful alcohol use](#).

### Main CVD diseases and their causes

#### Atrial fibrillation

Atrial fibrillation is a heart condition that causes an irregular and often abnormally fast heart rate. When the heart beats normally, its muscular walls contract (tighten and squeeze) to force blood out and around the body. They then relax, so the heart can fill with blood again. This process is repeated every time the heart beats. The cause isn't fully understood, but it tends to occur in certain age groups (65+) and may be triggered by certain situations, such as excessive drinking of alcohol or smoking.

#### Coronary heart disease (CHD), also known as Ischaemic heart disease

Coronary heart disease is the term that describes what happens when your heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries. Over time, the walls of your arteries can become clogged up with fatty deposits in a process known as atherosclerosis.

Atherosclerosis can be caused by lifestyle factors and other conditions, such as:

- smoking
- being physically inactive
- high cholesterol
- high blood pressure (hypertension)
- diabetes

Atherosclerosis is known to cause angina and heart attacks.

#### Heart failure

Heart failure means that the heart is unable to pump blood around the body properly. It usually occurs because the heart has become too weak or stiff. It is often the result of a number of problems affecting the heart at the same time. For example having coronary heart disease, high blood pressure or heart rhythm problems.

### Hypertension (high blood pressure)

Persistent high blood pressure can increase your risk of a number of serious and potentially life-threatening conditions, such as heart disease, heart attack, heart failure, stroke, kidney disease and vascular dementia.

An Individual is at an increased risk of high blood pressure if they:

- are over the age of 65
- are overweight or obese
- are of African or Caribbean descent
- have a relative with high blood pressure
- eat too much salt and don't eat enough fruit and vegetables
- don't do enough exercise
- drink too much alcohol or coffee (or other caffeine-based drinks)
- smoke
- don't get much sleep or have disturbed sleep

### Peripheral arterial disease

Peripheral arterial disease (PAD) is a common condition, in which a build-up of fatty deposits in the arteries restricts blood supply to leg muscles. A person's chances of developing PAD can be increased if they smoke, have high blood pressure, have high cholesterol or have diabetes.

### Stroke

Ischaemic strokes are the most common type of stroke. They occur when a blood clot blocks the flow of blood and oxygen to the brain. These blood clots typically form in areas where the arteries have been narrowed or blocked over time by fatty deposits known as plaques. Whilst arteries can narrow naturally as a person ages, things that can accelerate the process include:

- smoking
- high blood pressure (hypertension)
- obesity
- high cholesterol
- diabetes
- excess alcohol intake

Haemorrhagic strokes (also known as cerebral haemorrhages or intracranial haemorrhages) are less common than ischaemic strokes. They occur when a blood vessel within the skull bursts and bleeds into and around the brain. The main cause of haemorrhagic stroke is high blood pressure.

Things that increase the risk of high blood pressure include:

- being overweight or obese
- drinking excessive amounts of alcohol
- smoking
- a lack of exercise
- stress

## 1.1 Key findings

The latest recorded prevalence figures (QoF 2016/17) show that the Lancashire & South Cumbria STP has significantly higher levels of recorded atrial fibrillation (AF), coronary heart disease (CHD), heart failure, hypertension, peripheral arterial disease (PAD) and stroke compared to the England national average. With many of the CCGs that operate across the STP also recording significantly high prevalence for these conditions.

Whilst a number of CCGs have recorded significantly high admission rates for CHD, the rates have declined over time. However, admission rates for heart failure have gradually increased (2015/16).

Prescribing figures for 2016/17, based on the original 8 Lancashire-14 based CCGs, show that just over £31m was spent on prescribing over 10 million CVD items, with an average net ingredient cost (NIC) of £3.00 per item. At an individual CCG level, NIC per item ranged from £2.57 in Blackpool to £3.50 in West Lancashire.

Whilst CVD mortality is declining, it has still accounted for around 27% of all deaths over the past five years (2012-16), making it the second biggest killer across the Lancashire-12. With further analysis finding that males and persons aged 75+ account for the majority of such deaths. The main underlying causes of CVD mortality death is Ischaemic heart diseases which accounted for almost half (47%, 7,725) of all CVD deaths, followed by Cerebrovascular diseases which accounted for a quarter (25%, 4,002) of all CVD deaths.

The latest directly standardised three-year (2014-16) mortality rates (DSR), show that Lancashire-12 as whole and number of the districts within it, have significantly higher all-age and premature (<75) CVD mortality than the England average. At a district level, the following areas were all found to have significantly high levels of all-age CVD mortality compared to England; Blackburn with Darwen (331.6), Blackpool (339.1), Burnley (284.8), Hyndburn (302.4), Lancaster (271.1), Pendle (286.6), Preston (297.8) and Rossendale (294.6).

## 2. Analysis of the latest figures

### 2.1 Prevalence

Prevalence refers to the number of cases of a particular disease, which are present in a population at a given time. It can be presented as a modelled estimate and as recorded prevalence. With the latter of these referring to the number of known (recorded) cases of a particular disease within a population group. In the case of CVD, the recorded prevalence comes from the Quality and Outcomes Framework (QOF) GP registered population disease register and is divided up over following conditions; atrial fibrillation (AF), coronary heart disease (CHD), heart failure, hypertension, peripheral arterial disease (PAD) and stroke & transient Ischaemic attack. Patients may be present on more than of these CVD registers, making it difficult to determine the total recorded CVD prevalence.

In addition to QOF, some areas also have modelled estimates of prevalence. This is due to the disparity that can exist between survey estimates and disease registers, and to take into account incidents where an individual may be unaware of their condition (e.g. high blood pressure).

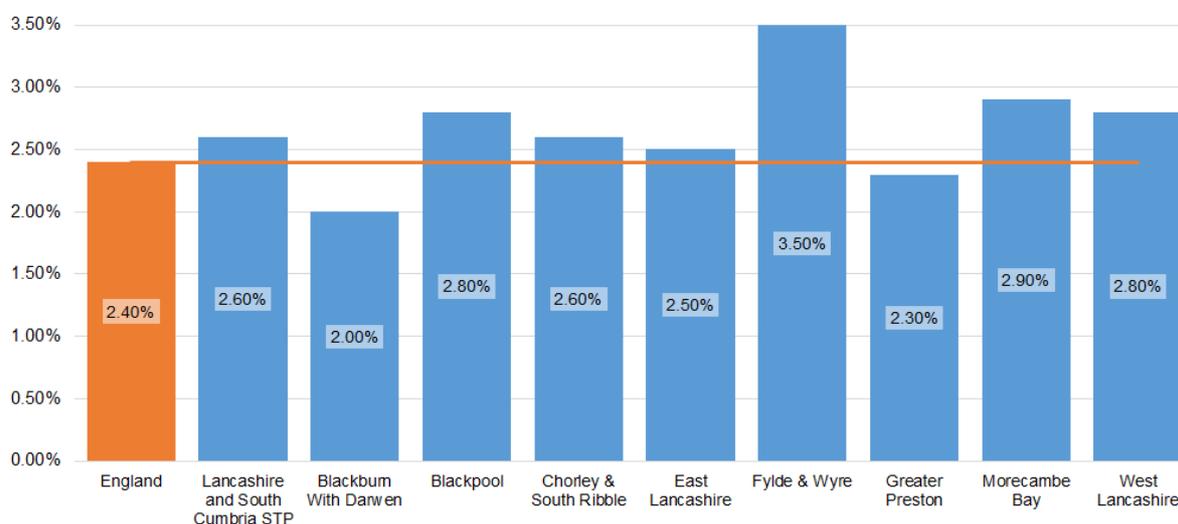
The QOF prevalence figures used in this report are based on the 2016/17 period. Where the recorded prevalence is found to be significantly above the national prevalence, it is important to note that this can also be interpreted as a positive finding, indicating that effective screening and diagnosis practices are in place.

#### Atrial Fibrillation (AF)

2.11% (36,695) of the registered population of the Lancashire and South Cumbria STP have a known diagnoses of AF, significantly above the national average of 1.84%. At an individual CCG level Blackpool (2.36%) Chorley & South Ribble (2.14%), Fylde & Wyre (2.77%), Morecambe Bay (2.36%) and West Lancashire (2.20%) all recorded rates that are significantly above the national average. Whilst Blackburn with Darwen (1.49%) has a prevalence significantly below it.

Estimated prevalence figures for the 2015/16 period suggest that AF levels are higher than recorded figures, suggesting that 2.6% (40,151) of the STP registered population has AF. A difference of 0.49 percentage points, with CCG level estimates ranging from 3.5% in Fylde & Wyre to 2.0% in Blackburn with Darwen.

**Figure 1 : All-age, CCG level, estimated prevalence of atrial fibrillation, 2015/16**



Source : Public Health England

### Coronary heart disease (CHD) also known as Ischaemic heart disease

There are 70,427 persons on the CHD registers of the Lancashire & South Cumbria STP accounting for 4.04% of the total registered population. Giving the area a recorded prevalence that is significantly above the national figure of 3.15%.

All eight STP CCGs recorded a prevalence that was significantly above the England average, with prevalence levels ranging from 5.13% in Fylde & Wyre to 3.39% in Greater Preston. Trend line analysis found that both locally and nationally, recorded CHD prevalence is coming down.

District level estimates of CHD prevalence amongst persons aged 55-79, suggests that it ranges from 9.4% in Blackpool (highest in the North West) to 7.1% in Ribble Valley (second lowest in the North West).

### Heart Failure

18,674 patients from across the Lancashire & South Cumbria STP have a confirmed diagnoses of heart failure, accounting for 1.07% of the population. This gives the area a significantly higher prevalence than the England average of 0.79%.

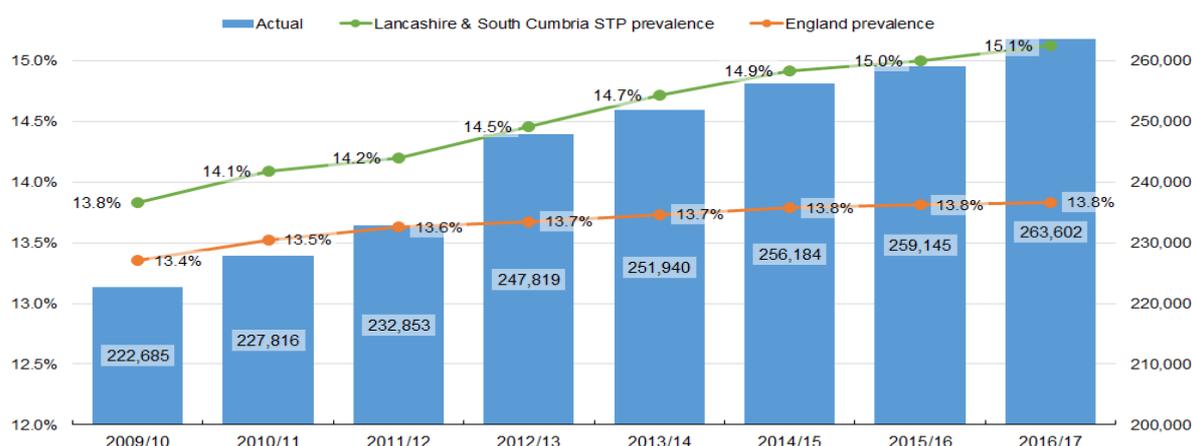
At a CCG level, all eight CCGs from across the STP have significantly higher levels of heart failure prevalence compared to England, with the figures ranging from 1.55% in Fylde & Wyre to 0.84% in Blackburn with Darwen.

### Hypertension (high blood pressure)

Hypertension has the largest prevalence of all the CVD disease areas, with 15.13% (263,602) of the STP registered population having a confirmed diagnosis, significantly above the national prevalence of 13.83%. At an individual CCG level, the prevalence ranges from 18.02% in Fylde & Wyre to 12.94% in Blackburn with Darwen, a difference of 5.08%. Benchmarking the CCG values against England shows that all but two have a prevalence that is significantly above the national average. With Blackburn with Darwen and Greater Preston being the exceptions, both of which have a prevalence significantly below England.

Trend analysis shows that since 2009/10 the number of people on the STPs hypertension disease register has increased by 18.4% (40,917), whilst the population has increased by 8.2%. Over this same period, England as a whole has also seen an increase in its hypertension register of 9.7% and its registered population (5.8%). Suggesting the STP's disease register and registered population are both growing at a faster rate than England's.

**Figure 2 : Lancashire & South Cumbria hypertension QOF prevalence and recorded actuals 2009/10 – 2016/17**



At a CCG level, Blackpool CCG recorded the largest increase in its hypertension register (23.2%, 5,772) and whilst Greater Preston (14.6%, 3,602) recorded the smallest.

**Peripheral arterial disease (PAD)**

All eight CCGs of the Lancashire & South Cumbria STP have significantly high levels of PAD prevalence compared to England, with a total of 16,102 persons on the combined disease accounting for just under 1% of the total registered population.

Between the different CCGs, prevalence ranges from 1.22% in Blackpool to 0.74% in West Lancashire a difference of 0.48% percentage points.

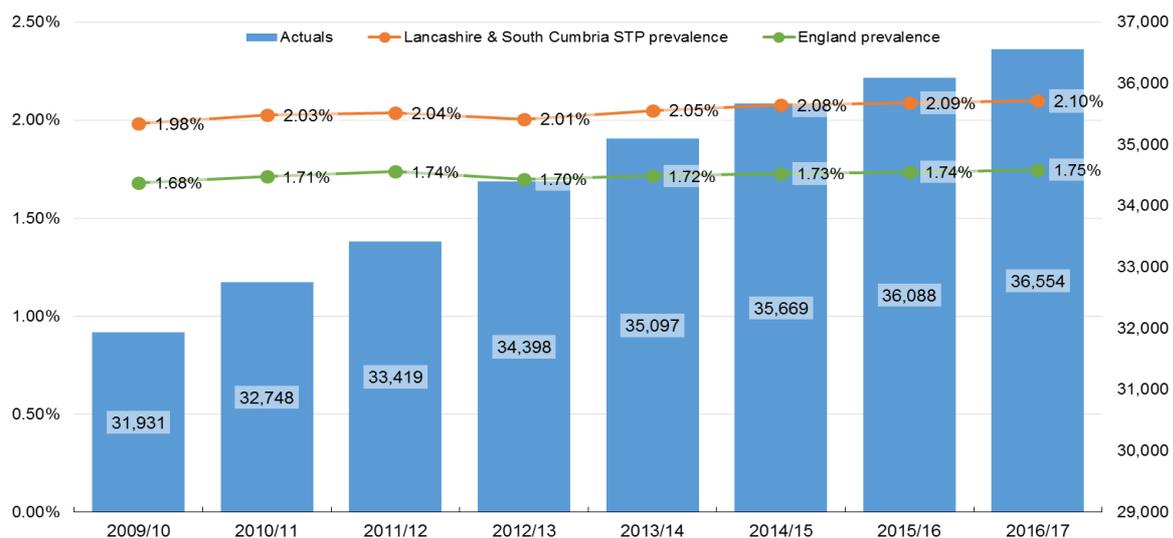
**Stroke**

There are 36,554 persons on the GP registers, who are recorded as having had a stroke, giving the STP a stroke and transient ischaemic attack prevalence of 2.10% significantly above the England prevalence (1.75%). At a CCG level, Blackburn with Darwen is the only area not to record a prevalence significantly above the national average, with figures ranging from 1.72% for Blackburn with Darwen to 2.58% in Fylde & Wyre.

District level estimated stroke prevalence, amongst persons aged 55-79, suggest that Blackpool (4.33%), Wyre (4.28%) and Blackburn (3.95%) all fall within the top 10 in the North West for stroke prevalence amongst this cohort.

Trend line analysis shows that the number of patients on the STPs stroke register has increased by 14.48% since the 2009/10 period, whilst the national register has increased by 9.94%. At an individual CCG level Chorley & South Ribble recorded the biggest increase (21.60%, 655) and Fylde & Wyre the smallest (8.88%, 318).

**Figure 3 : Lancashire & South Cumbria stroke and transient ischaemic attack QOF prevalence and recorded actuals, 2009/10 – 2016/17**



Appendix A provides a CCG level breakdown of the CVD patient registers for 2016/17.

## 2.2 Hospital activity

The [Public Health England cardiovascular disease profiles](#) provide nationally benchmarked all-age directly standardised rates (DSR) per 100,000 of hospital admission rates for coronary heart disease (CHD), heart failure and stroke at a CCG level. The latest figures are for the 2015/16 period and show that for CHD five of the eight CCGs were found to have significantly higher DSRs per 100,000 than England (527.9) these being; Blackburn with Darwen (811.6), Blackpool (648.6), Chorley & South Ribble (601.9), East Lancashire (688.9) and Greater Preston (703.1). In total, 10,886 CHD admissions were recorded over this one year period, however trend line analysis indicates that most of CCGs in the STP are seeing a gradual decrease in admission rates.

Analysis of the heart failure admissions (2015/16) show that just two of the CCGs have recorded rates that were significantly above the national average (153.8) these being; Blackpool (216.2) and Chorley & South Ribble (197.1). Whilst East Lancashire (127.8) and West Lancashire (129.7) both recorded rates that were significantly below the England rate. Trend line analysis shows that five of the CCGs are seeing gradual increases in their heart failure admission rates. These being; Blackpool, South Ribble, Fylde & Wyre, Greater Preston and Morecambe Bay.

Unfortunately, the latest stroke admission rates do not include the new Morecambe Bay CCG and are still based upon the old CCG geographies which include Lancashire North CCG. They do tell us, that all eight CCGs recorded admission rates that were either in line or significantly better than the England rate and that in total there were 2,282 admissions during the 2015/16 period.

Analysis of locally held hospital activity, extracted from the Secondary Uses Service (SUS) datasets and based on the old CCG geographies which exclude Morecambe Bay CCG. Revealed that over the course of 2015/16, there were 27,324 admissions with a cardiovascular disease primary diagnosis involving patients registered to the six Lancashire-12 CCGs. With further analysis, finding that 50% (13,687) of these admissions were unplanned/emergency admissions, 84% (22,986) involved patients aged 50 or over, 56% (15,288) were male patients and 27% (7,502) related coronary heart disease.

## 2.3 Prescribing

Based on the old CCG footprint, which includes Lancashire North CCG, the eight CCGs of Lancashire-14 prescribed a total 10,366,059 items at a total net ingredient cost (NIC) of £31,146,931 over the 2016/17 period. This works out at around £3.00 (NIC) per item prescribed, although this figure varies between the CCGs from £3.50 (NIC) per item in West Lancashire to £2.57 in Blackpool.

Almost three fifths (59.3%, 6,142,864), of all items prescribed, were coded under just three sub-sections these being Lipid-Regulating drugs (22.0%) which tend to be statin based cholesterol lowering drugs, used to prevent major cardiovascular events, drugs for hypertension and heart failure (21.6%) and Nitrates, calcium-channel blockers, and other antianginal drugs (15.7%), which are used for treating patients with angina. The most expensive item prescribed was sympathomimetics with 1,786 prescribed at cost (NIC) of £55.75 per item. These are drugs that are used to treat cardiac arrest and low blood pressure and are sometimes used as an emergency measure.

**Figure 4 : Total cardiovascular prescriptions by the eight Lancashire-14 CCGs in 2016/17<sup>1</sup>**

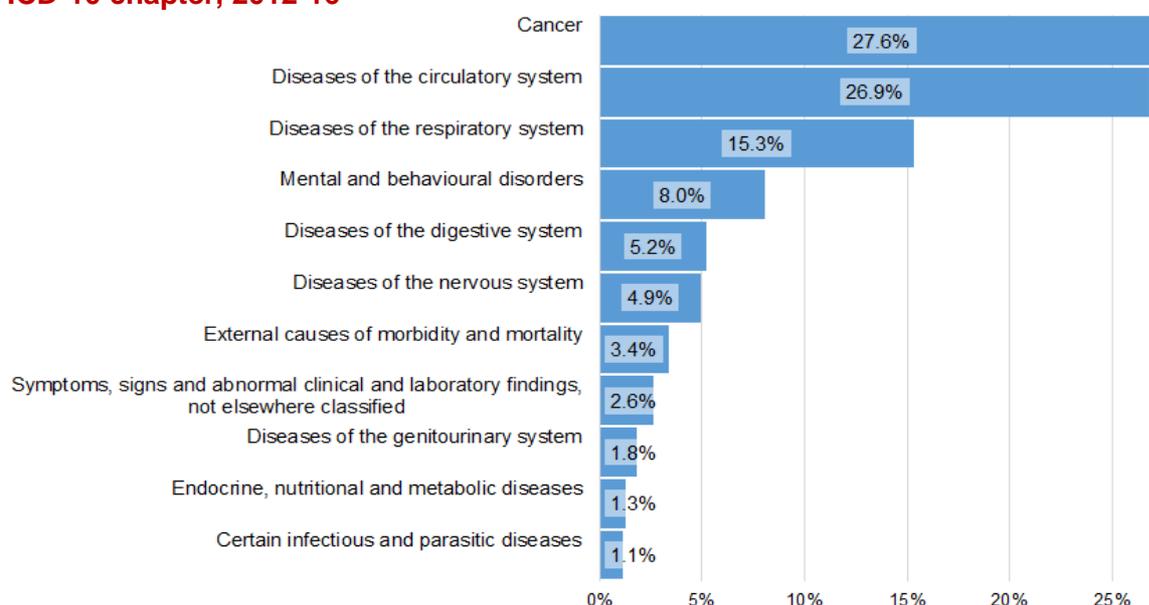
| CCG Name                   | Total Items | % of total items | Actual Cost | NIC         | NIC per item | % of total NIC |
|----------------------------|-------------|------------------|-------------|-------------|--------------|----------------|
| Blackburn with Darwen CCG  | 1,012,850   | 9.77%            | £2,836,496  | £3,042,083  | £3.00        | 9.77%          |
| Blackpool CCG              | 1,484,586   | 14.32%           | £3,579,588  | £3,817,746  | £2.57        | 12.26%         |
| Chorley & South Ribble CCG | 1,114,495   | 10.75%           | £3,484,767  | £3,732,620  | £3.35        | 11.98%         |
| East Lancashire CCG        | 2,472,793   | 23.85%           | £6,860,212  | £7,359,685  | £2.98        | 23.63%         |
| Fylde & Wyre CCG           | 1,312,861   | 12.66%           | £3,349,367  | £3,581,477  | £2.73        | 11.50%         |
| Greater Preston CCG        | 1,294,971   | 12.49%           | £3,882,624  | £4,142,093  | £3.20        | 13.30%         |
| Lancashire North CCG       | 980,586     | 9.46%            | £2,844,955  | £3,043,929  | £3.10        | 9.77%          |
| West Lancashire CCG        | 692,917     | 6.68%            | £2,269,042  | £2,427,299  | £3.50        | 7.79%          |
| Grand Total                | 10,366,059  | 100%             | £29,107,051 | £31,146,931 | £3.00        | 100%           |

## 2.4 Mortality

Mortality from cardiovascular diseases (CVD) has been gradually decreasing since 1995 with studies suggesting that this decline is due to a combination of improved cardiac treatments<sup>2</sup> and a drop in the associated risk factor levels such as the decline in smoking prevalence and the national smoking ban which has greatly reduced the impact and risk of passive smoking<sup>3</sup>.

Local analysis, looking at the latest five year period available (2012-2016), show that cancer (full chapter C00-D48) accounted for the majority of deaths across the Lancashire-12 area (27.6%), closely followed by diseases of the circulatory system (26.9%), with diseases of the respiratory system (15.3%) found to be the third biggest killer over this time frame.

**Figure 5 : Proportion of total mortality in Lancashire-12, by underlying cause of death ICD-10 chapter, 2012-16**



<sup>1</sup> The actual cost is the basic price of the drug less an approximation of discount, based on the National Average Discount Percentage (NADP) plus the container cost. The net ingredient cost is the basic price of the drug as stated in Part II Clause 8 of the Drug Tariff, this is the cost that is charged back to the CCG

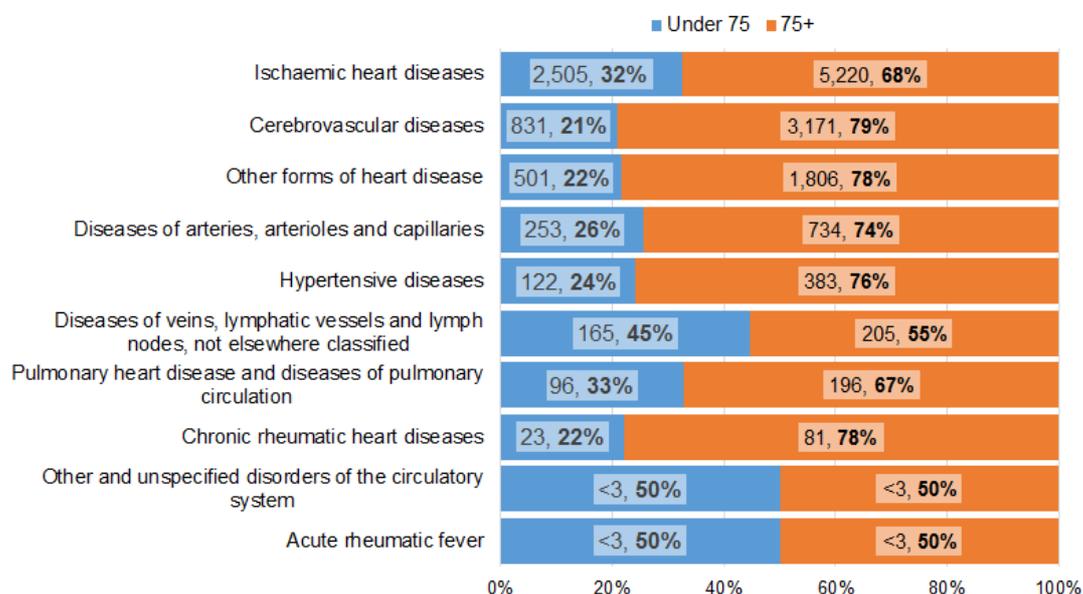
<sup>2</sup> Smolina Kate, Wright F Lucy, Rayner Mike, Goldacre Michael J. Determinants of the decline in mortality from acute myocardial infarction in England between 2002 and 2010: linked national database study BMJ 2012; 344 :d8059

<sup>3</sup> Frazer K, Callinan JE, McHugh J, van Baarsel S, Clarke A, Doherty K, Kelleher C. Legislative smoking bans for reducing harms from second hand smoke exposure, smoking prevalence and tobacco consumption. Cochrane Database of Systematic Reviews 2016, Issue 2. Art. No.: CD005992. DOI: 10.1002/14651858.CD005992.pub3

In total 16,296 deaths were recorded as having a circulatory disease underlying cause of death over the five year period examined, an average of 3,259 deaths per year. Drilling down further, revealed that 4,498 (28%) were considered premature deaths (under the age of 75 with the main causes of death being Ischaemic heart diseases which accounted for almost half (47%, 7,725) of all CVD deaths, followed by Cerebrovascular diseases which accounted for a quarter (25%, 4,002) of all CVD deaths.

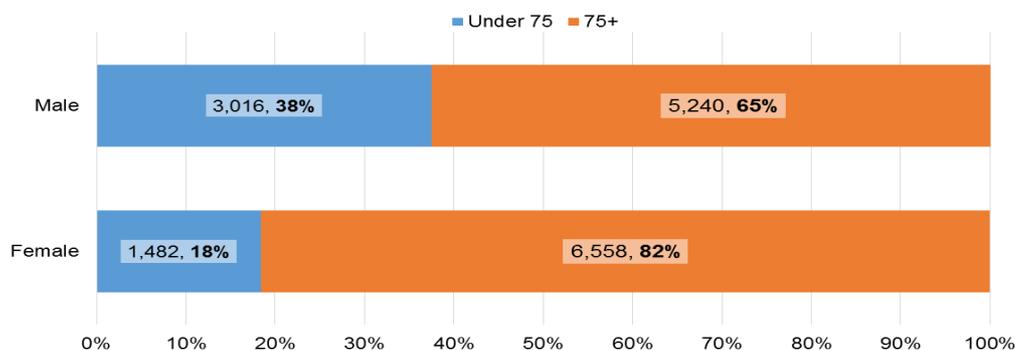
Splitting the underlying ICD-10 blocks between those deaths recorded in patients under the age of 75 and those aged over 75 shows that in most cases the patients were aged 75+. This fits in with the strong association between cardiovascular disease and ageing<sup>4</sup>.

**Figure 6 : Lancashire-12 mortality recorded under the diseases of the circulatory system ICD-10 chapter, split by ICD-10 block and divided by patients aged under or over 75.**



Split by gender, it can be seen that female patients appear more likely to die at an older age than male patients. However, it should be noted that females have a higher life expectancy than males and therefore will account for a larger proportion of the 75+ population than males something which could be influencing the below figures.

**Figure 7 : Lancashire-12 cardiovascular disease mortality by gender, split by patients aged under or over 75.**

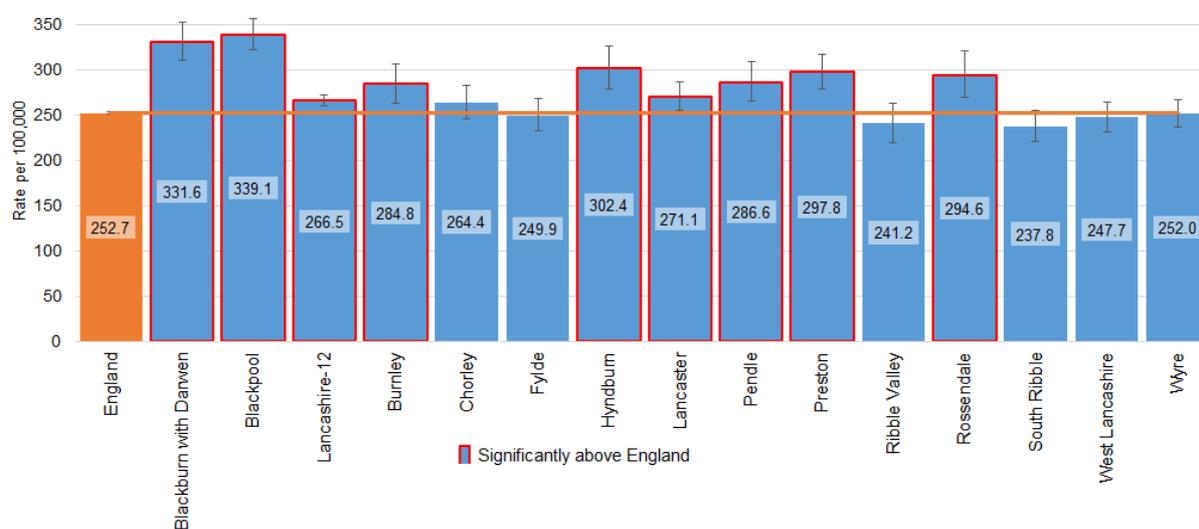


<sup>4</sup> North B. J., Sinclair D. A. The intersection between aging and cardiovascular disease. Circulation Research. 2012;110(8):1097–1108. doi: 10.1161/CIRCRESAHA.111.246876

The latest directly standardised mortality rates (DSR), which cover the three year period 2014-16, indicate that during this period there was a total of 9,459 CVD deaths across Lancashire-12, giving the area a rate of 266.5 per 100,000 significantly above the national average rate of 252.7. At a district level, the rates range from 302.4 to 237.8 with six areas recording rates significantly above the England rate, these being; Burnley (284.8), Hyndburn (302.4), Lancaster (271.1), Pendle (286.6), Preston (297.8) and Rossendale (294.6).

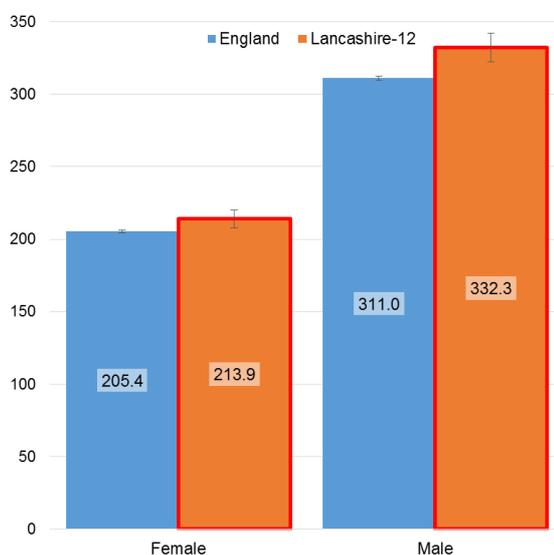
The two neighbouring unitary authorities of Blackburn with Darwen (331.6) and Blackpool (339.1) also recorded all age CVD mortality rates that were significantly above the national average.

**Figure 8 : All-age, all-person, directly standardised cardiovascular disease mortality rate per 100,000, 2014-16**



Gender analysis shows that at both a local and national level, males have a significantly higher mortality rate than females and that Lancashire-12 has a significantly higher female and male all-age mortality rates than England.

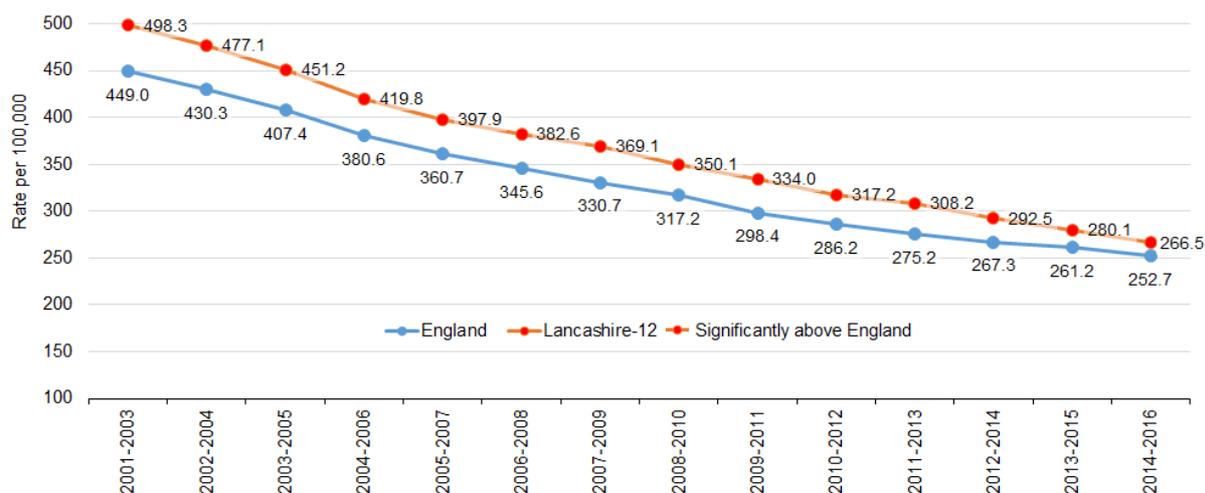
**Figure 9 : All-age, directly standardised cardiovascular disease mortality rate per 100,000, by gender, 2014-16**



Trend line analysis shows us that both nationally and locally, all-age mortality from cardiovascular disease is declining and that although the Lancashire-12 rate has remained consistently above the England rate the gap is closing.

In real terms, there were 3,054 fewer CVD deaths over the 2014-16 period, compared to the 2004-06 period, a reduction of 24%.

**Figure 10 : All-age, all-person, directly standardised cardiovascular disease mortality rate per 100,000, 2001-03 to 2014-16**



Reducing premature mortality, referred to as mortality in persons aged 74 or under, is a major priority of both Public Health England and the NHS, with the NHS Health Check programme playing a key role. Around two-thirds of deaths among the under 75's are caused by diseases and illnesses that are largely avoidable such as heart disease and stroke (Department of Health's 'Living well for longer: a call to action to reduce avoidable premature mortality' 2013).

The latest premature cardiovascular disease mortality DSRs (2014-16) show that 2,686 persons died such deaths in Lancashire-12, giving the area a rate of 82.0 per 100,000 significantly above the England rate (73.5). At a district level there areas of Burnley (103.1), Hyndburn (106.2), Pendle (92.9), Preston (99.9) and Rossendale (92.3) all recorded rates that were significantly above the national average, with Hyndburn and Burnley recording two of the highest rates in the North West. At the other end of the scale, Ribble Valley (66.3) recorded one of the lowest rates in the region.

Both Blackburn with Darwen (119.5) and Blackpool (118.8) also recorded rates that were significantly above England's.

### 3. Conclusions

Local and national mortality rates from CVD are reducing with advances in medical care and treatment playing a key role successful national and local public health initiatives such as the 2007 smoking ban and local stop smoking and healthy weight programmes. However, local prevalence, hospital activity and mortality rates remain significantly above the national average, with some noticeable differences between the different CCG and district areas. Males and persons aged 75+ were found to account for the majority of CVD deaths.

Differences in prescribing spending were also noted, with costs ranging from £2.57 NIC per item in Blackpool to £3.50 per item in West Lancashire. This suggests there is potential for shared learning and opportunities for cost reductions.

In order to continue this decline in mortality and address health inequalities, the health and local government bodies of Lancashire-12 will need to continue to support intervention programmes such as those aimed at reducing smoking prevalence, health weight and improving levels of physical activity. Areas Lancashire-12 often performs badly in, when benchmarked against the national average. The Health Checks programme can also play an important role in helping to identify and diagnose patients earlier, ensuring that they receive treatment sooner which *could* lead to improved outcomes and longer, healthier lives. This work will also support demand reduction projects and long term cost reduction initiatives.

4. Appendices

Appendix A: CCG level recorded disease prevalence - cardiovascular group, 2016/17

| CCG name                         | List Size           |            | AF - Atrial Fibrillation |                       |              | CHD - Coronary heart disease |                       |              | HF - Heart failure |                       |              |
|----------------------------------|---------------------|------------|--------------------------|-----------------------|--------------|------------------------------|-----------------------|--------------|--------------------|-----------------------|--------------|
|                                  | 2016/17             |            | 2016/17                  |                       |              | 2016/17                      |                       |              | 2016/17            |                       |              |
|                                  | Number of practices | All ages   | Register                 | Prevalence (per cent) | Significance | Register                     | Prevalence (per cent) | Significance | Register           | Prevalence (per cent) | Significance |
| England                          | 7,392               | 58,029,147 | 1,065,569                | 1.84%                 | -            | 1,829,777                    | 3.15%                 | -            | 457,794            | 0.79%                 | -            |
| LANCASHIRE AND SOUTH CUMBRIA STP | 246                 | 1,742,530  | 36,695                   | 2.11%                 | High         | 70,427                       | 4.04%                 | High         | 18,674             | 1.07%                 | High         |
| Lancashire-12                    | 198                 | 1,396,034  | 30,036                   | 2.15%                 | High         | 56,014                       | 4.01%                 | High         | 14,574             | 1.04%                 | High         |
| NHS BLACKBURN WITH DARWEN CCG    | 27                  | 173,797    | 2,582                    | 1.49%                 | Low          | 6,488                        | 3.73%                 | High         | 1,459              | 0.84%                 | High         |
| NHS BLACKPOOL CCG                | 21                  | 172,699    | 4,077                    | 2.36%                 | High         | 7,925                        | 4.59%                 | High         | 2,641              | 1.53%                 | High         |
| NHS CHORLEY AND SOUTH RIBBLE CCG | 31                  | 181,931    | 3,892                    | 2.14%                 | High         | 7,170                        | 3.94%                 | High         | 1,880              | 1.03%                 | High         |
| NHS EAST LANCASHIRE CCG          | 57                  | 378,849    | 7,103                    | 1.87%                 |              | 15,192                       | 4.01%                 | High         | 3,424              | 0.90%                 | High         |
| NHS FYLDE & WYRE CCG             | 19                  | 151,112    | 4,190                    | 2.77%                 | High         | 7,748                        | 5.13%                 | High         | 2,337              | 1.55%                 | High         |
| NHS GREATER PRESTON CCG          | 30                  | 210,130    | 3,863                    | 1.84%                 |              | 7,118                        | 3.39%                 | High         | 2,091              | 1.00%                 | High         |
| NHS MORECAMBE BAY CCG            | 42                  | 360,784    | 8,500                    | 2.36%                 | High         | 14,497                       | 4.02%                 | High         | 3,600              | 1.00%                 | High         |
| NHS WEST LANCASHIRE CCG          | 19                  | 113,228    | 2,488                    | 2.20%                 | High         | 4,289                        | 3.79%                 | High         | 1,242              | 1.10%                 | High         |

| CCG name                         | HYP - Hypertension |                       |              | PAD - Peripheral arterial disease |                       |              | STIA - Stroke and transient ischaemic attack |                       |              |
|----------------------------------|--------------------|-----------------------|--------------|-----------------------------------|-----------------------|--------------|--|-----------------------|--------------|
|                                  | 2016/17            |                       |              | 2016/17                           |                       |              | 2016/17                                      |                       |              |
|                                  | Register           | Prevalence (per cent) | Significance | Register                          | Prevalence (per cent) | Significance | Register                                     | Prevalence (per cent) | Significance |
| England                          | 8,028,077          | 13.83%                | -            | 347,755                           | 0.60%                 | -            | 1,013,462                                    | 1.75%                 | -            |
| LANCASHIRE AND SOUTH CUMBRIA STP | 263,602            | 15.13%                | High         | 16,102                            | 0.92%                 | High         | 36,554                                       | 2.10%                 | High         |
| Lancashire-12                    | 210,504            | 15.08%                | High         | 12,621                            | 0.90%                 | High         | 29,626                                       | 2.12%                 | High         |
| NHS BLACKBURN WITH DARWEN CCG    | 22,488             | 12.94%                | Low          | 1,372                             | 0.79%                 | High         | 2,993  | 1.72%                 |              |
| NHS BLACKPOOL CCG                | 30,610             | 17.72%                | High         | 2,109                             | 1.22%                 | High         | 3,935  | 2.28%                 | High         |
| NHS CHORLEY AND SOUTH RIBBLE CCG | 27,791             | 15.28%                | High         | 1,562                             | 0.86%                 | High         | 3,688  | 2.03%                 | High         |
| NHS EAST LANCASHIRE CCG          | 54,479             | 14.38%                | High         | 3,778                             | 1.00%                 | High         | 7,625  | 2.01%                 | High         |
| NHS FYLDE & WYRE CCG             | 27,232             | 18.02%                | High         | 1,632                             | 1.08%                 | High         | 3,898  | 2.58%                 | High         |
| NHS GREATER PRESTON CCG          | 28,298             | 13.47%                | Low          | 1,584                             | 0.75%                 | High         | 3,943  | 1.88%                 | High         |
| NHS MORECAMBE BAY CCG            | 54,641             | 15.15%                | High         | 3,225                             | 0.89%                 | High         | 8,180  | 2.27%                 | High         |
| NHS WEST LANCASHIRE CCG          | 18,063             | 15.95%                | High         | 840                               | 0.74%                 | High         | 2,292  | 2.02%                 | High         |