Cardiovascular disease (CVD) is the second largest cause of death in England causing around 130,190 deaths in 2011 (29% of all deaths). Around 46% of all deaths from CVD are from coronary heart disease (CHD) and almost a fifth from stroke (18%). CHD is the most common single cause of death in England (13% of all deaths in 2011).

This Cardiovascular Disease (CVD) Health Profile brings together a wide range of data on cardiovascular disease in each upper tier local authority in England and in associated Strategic Clinical Networks. Its aim is to provide information to health care professionals, commissioners and other interested parties about CVD issues in their local community, as an aid to planning and development.

Derby lies within the boundaries of the East Midlands Strategic Clinical Network (as of 1st April 2013, pictured right).

This information is also available for each strategic clinical network, and as an interactive atlas.

Benchmarking

The area is benchmarked against the national value and the average value of the strategic clinical network in which it is either entirely or mostly located.

Derby is classified as a member of the East Midlands strategic clinical network.

Key messages

Early mortality (under 75 years) rates from cardiovascular disease are similar to the national rate, and have decreased by 59.5% since 1995.

Emergency admission rates for both CHD and stroke are similar to the national rate.

There were less than 5 deaths recorded within 30 days of hospital admission for STEMI patients.

For people having myocardial infarction reperfusion in 2011/12, the median time to primary angioplasty treatment from a call for help was 94 minutes in Derby, this is lower than in East Midlands and England (112 and 111 respectively).

There is a slightly lower proportion of stroke patients under 75 years discharged back to their usual place of residence compared to the national picture.
## Summary Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Local Value</th>
<th>Eng Avg</th>
<th>Eng Low</th>
<th>England Range</th>
<th>Eng High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Early cardiovascular mortality (&lt;75 yrs)</td>
<td>66.6</td>
<td>58.8</td>
<td>34.3</td>
<td></td>
<td>107.0</td>
</tr>
<tr>
<td>2 Stroke mortality</td>
<td>30.5</td>
<td>34.5</td>
<td>23.0</td>
<td></td>
<td>50.8</td>
</tr>
<tr>
<td>3 Estimated % smokers (16+)</td>
<td>22.0</td>
<td>20.7</td>
<td>14.0</td>
<td></td>
<td>31.0</td>
</tr>
<tr>
<td>4 Estimated % obese (16+)</td>
<td>23.4</td>
<td>24.2</td>
<td>13.9</td>
<td></td>
<td>30.7</td>
</tr>
<tr>
<td>5 % of long term conditions who smoke</td>
<td>17.9</td>
<td>17.4</td>
<td>10.0</td>
<td></td>
<td>27.2</td>
</tr>
<tr>
<td>6 Obs/Exp CHD prevalence</td>
<td>0.6</td>
<td>0.6</td>
<td>0.3</td>
<td></td>
<td>0.8</td>
</tr>
<tr>
<td>7 Obs/Exp Hypertension prevalence</td>
<td>0.5</td>
<td>0.5</td>
<td>0.3</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>8 CHD emergency admissions</td>
<td>212.2</td>
<td>198.3</td>
<td>124.4</td>
<td></td>
<td>366.4</td>
</tr>
<tr>
<td>9 Stroke emergency admissions</td>
<td>83.0</td>
<td>89.5</td>
<td>48.7</td>
<td></td>
<td>160.2</td>
</tr>
<tr>
<td>10 30 day mortality in STEMI</td>
<td>8.7</td>
<td>0.0</td>
<td></td>
<td></td>
<td>20.6</td>
</tr>
<tr>
<td>11 % stroke discharged to usual residence</td>
<td>73.1</td>
<td>77.9</td>
<td>56.7</td>
<td></td>
<td>97.5</td>
</tr>
<tr>
<td>12 % HF who die at usual place residence</td>
<td>40.1</td>
<td>58.5</td>
<td>19.2</td>
<td></td>
<td>99.0</td>
</tr>
<tr>
<td>13 Angiography rates</td>
<td>178.1</td>
<td>278.2</td>
<td>122.3</td>
<td></td>
<td>676.0</td>
</tr>
<tr>
<td>14 Revascularisation rates</td>
<td>141.9</td>
<td>140.5</td>
<td>87.1</td>
<td></td>
<td>249.3</td>
</tr>
</tbody>
</table>

- **Significantly Higher than England average**
- **Significantly Lower than England average**
- **Not significantly different from England average**
- **No significance available**

### Contents

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- **Page 16**: CVD mortality rates and CVD mortality rates by quintile of relative deprivation
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1. Directly standardised rate per 100,000, 2011 under 75.  
2. Directly standardised rate per 100,000, 2011.  
3. Percentage estimate of smokers, 16+, 2006-08.  
5. Percentage of those registered with long-term conditions who smoke, 2010/11.  
6. Ratio of 2011/12 CHD QOF disease registers to estimated prevalence in 2011.  
7. Ratio of 2011/12 hypertension QOF disease registers to estimated prevalence in 2011.  
8. Directly standardised rate per 100,000, 2011/12.  
9. Directly standardised rate per 100,000, 2011/12.  
11. % of all patients diagnosed with stroke under 75, 2011/12.  
12. Percentage of deaths due to heart failure at their usual place of residence 2007-2011.  
13. Directly standardised rate per 100,000, 2011/12.  
14. Directly standardised rate per 100,000, 2011/12.
The population estimate of Derby in 2011 was 248,900 and is projected to increase to 274,300 in 2021.

Age is a key factor in cardiovascular disease. The prevalence of cardiovascular disease increases significantly after the age of 40 years.

The percentage of the population aged 40 or over in Derby is expected to remain unchanged at at 21.8% for males and decrease from 23.7% to 23.1% for females between 2011 and 2021.

The population aged 40 or over in the East Midlands Network is expected to increase from 24.4% to 24.8% for males and from 26.3% to 26.6% for females. In England it is expected to increase from 23.5% to 23.9% for males and from 25.7% to 25.8% for females.

Derby has 27.9% of its population in the most deprived national quintile and 23.9% of the population in the least deprived quintile.

The proportion of the population in Derby which is from black and minority ethnic groups is estimated to be 19.7%. South Asian men are more likely to develop CHD at younger age, and have higher rates of myocardial infarction. Black people have the highest stroke mortality rates.

The definition of BME used here excludes 'White Irish', 'White Gypsy or Irish traveller', and 'White other' ethnic groups.
Lifestyle estimates for adults

<table>
<thead>
<tr>
<th></th>
<th>Smoking</th>
<th>Increasing and high risk drinking (combined)</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derby</td>
<td>22.0%</td>
<td>21.4%</td>
<td>23.4%</td>
</tr>
<tr>
<td>East Midlands</td>
<td>21.4%</td>
<td>22.5%</td>
<td>24.4%</td>
</tr>
<tr>
<td>England</td>
<td>20.7%</td>
<td>22.3%</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Sources: Smoking: Integrated Household Survey, 2010/11
High Risk drinking: Modelled estimates from the General Lifestyles Survey, 2008-09
Obesity: Modelled Estimates from Health Survey for England, 2006-08

Smoking

- Using data from the Integrated Household Survey it is estimated that 22.0% of the population in Derby smoke. This is higher than the estimated proportion in England (20.7%) and higher than East Midlands (21.4%).

Increasing and high risk drinking (combined)

- Using modelled estimates from the General Lifestyle Survey, it is estimated that 21.4% of the population in Derby have increasing or high risk drinking behaviour. This is lower than England (22.3%) and lower than East Midlands (22.5%).

Adult obesity

- Using modelled estimates from the Health Survey for England, it is estimated that 23.4% of the adult population in Derby are classifed as obese. This is lower than England (24.2%) and lower than East Midlands (24.4%).

Percentage of patients registered with a GP with any combination of registered long-term conditions who smoke, QOF 2011/12

QOF data shows that the percentage of patients with long-term conditions who smoke in Derby was 17.9% in 2011/12. This is significantly higher than the rate in England (17.4%) and significantly higher than the rate in East Midlands (17.4%).
Effective exception rate (EER)

<table>
<thead>
<tr>
<th>Area</th>
<th>2011/12 EER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derby</td>
<td>7.5%</td>
</tr>
<tr>
<td>East Midlands</td>
<td>6.1%</td>
</tr>
<tr>
<td>England</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

GPs can exclude patients from the calculation of measures in the Quality and Outcomes Framework, to allow practices to pursue the quality improvement agenda and not be penalised, where, for example, patients do not attend for review, or where a medication cannot be prescribed due to a contraindication or side-effect. However, the number of such exceptions varies substantially between practices. In 2011/12, the exception rate in Derby was 7.5%. Within England, the exception rate varied between 3.9% to 8.6% for individual areas.

Number and percentage of practices with high exception reporting rates

<table>
<thead>
<tr>
<th>Atrial fibrillation</th>
<th>Coronary heart disease</th>
<th>Heart failure</th>
<th>Hypertension</th>
<th>Stroke &amp; TIA</th>
<th>CVD Primary Prevention</th>
<th>Practices with any high exception rates</th>
<th>Total number of practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derby</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Derby %</td>
<td>3.4%</td>
<td>10.3%</td>
<td>3.4%</td>
<td>6.9%</td>
<td>0.0%</td>
<td>6.9%</td>
<td>31.0%</td>
</tr>
<tr>
<td>East Midlands %</td>
<td>1.7%</td>
<td>9.3%</td>
<td>2.6%</td>
<td>1.5%</td>
<td>3.7%</td>
<td>3.5%</td>
<td>22.3%</td>
</tr>
<tr>
<td>England %</td>
<td>2.1%</td>
<td>7.5%</td>
<td>3.6%</td>
<td>2.0%</td>
<td>4.1%</td>
<td>2.1%</td>
<td>21.3%</td>
</tr>
</tbody>
</table>

Quality and Outcomes Framework - prevalence

Observed (GP registered) prevalence in 2011/12 versus estimated prevalence in 2011

Coronary heart disease

The observed prevalence for CHD in Derby is 57.8% of the estimated prevalence. This compares to 58.2% for England and 62.4% for East Midlands.

Stroke

The observed prevalence for stroke in Derby is 67.8% of the estimated prevalence. This compares to 68.4% for England and 70.9% for East Midlands.

Hypertension

The observed prevalence for hypertension in Derby is 46.6% of the estimated prevalence. This compares to 46.0% for England and 46.1% for East Midlands. The gap between recognised and treated hypertension, and actual hypertension levels in the community have been long recognised.

Sources: Quality and Outcomes Framework 2011/12 and modelled estimates of prevalence, Eastern Region Public Health Observatory, December 2011
### Cardiovascular disease health profile - Derby

#### 2011/12

<table>
<thead>
<tr>
<th></th>
<th>Derby</th>
<th>East Midlands</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coronary heart disease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% newly diagnosed angina patients referred for exercise testing or assessment</td>
<td>99.3</td>
<td>97.9</td>
<td>98.2</td>
</tr>
<tr>
<td>% CHD patients in whom last blood pressure reading was 150/90 or less</td>
<td>91.0</td>
<td>90.4</td>
<td>90.1</td>
</tr>
<tr>
<td>% CHD patients in whom last cholesterol measurement was 5mmol/l or less</td>
<td>83.7</td>
<td>82.0</td>
<td>80.4</td>
</tr>
<tr>
<td>% CHD patients taking aspirin, an alternative anti-platelet therapy or an anti-coagulant in last 15 months</td>
<td>92.0</td>
<td>93.0</td>
<td>93.3</td>
</tr>
<tr>
<td>% CHD patients currently treated with beta blocker</td>
<td>75.5</td>
<td>75.5</td>
<td>74.2</td>
</tr>
<tr>
<td>% patients with history of myocardial infarction currently treated with ACE inhibitor or angiotensin II antagonist</td>
<td>94.6</td>
<td>91.1</td>
<td>91.1</td>
</tr>
<tr>
<td>% CHD patients immunised against influenza in Sept-March 05</td>
<td>92.9</td>
<td>92.5</td>
<td>92.5</td>
</tr>
<tr>
<td><strong>Stroke</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% stroke patients whose blood pressure was 150/90 or less</td>
<td>88.9</td>
<td>88.9</td>
<td>88.6</td>
</tr>
<tr>
<td>% stroke patients with record of cholesterol in last 15 months</td>
<td>90.5</td>
<td>91.8</td>
<td>91.4</td>
</tr>
<tr>
<td>% stroke patients whose cholesterol was 5mmol/l or less</td>
<td>80.4</td>
<td>79.3</td>
<td>77.2</td>
</tr>
<tr>
<td>% stroke patients immunised preceding Sept-March</td>
<td>90.1</td>
<td>90.0</td>
<td>90.0</td>
</tr>
<tr>
<td>% non-haemorrhagic/with history of TIA stroke patients taking anti-platelet agent/anti-coagulant</td>
<td>93.1</td>
<td>93.7</td>
<td>93.6</td>
</tr>
<tr>
<td>% new patients with a stroke referred for further investigation</td>
<td>92.3</td>
<td>89.2</td>
<td>89.6</td>
</tr>
<tr>
<td><strong>Hypertension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% hypertension patients with record of blood pressure in last 9 months</td>
<td>91.6</td>
<td>91.3</td>
<td>91.0</td>
</tr>
<tr>
<td>% hypertension patients (with record in last 9 months) in whom last blood pressure was 150/90 or less</td>
<td>80.4</td>
<td>80.2</td>
<td>79.7</td>
</tr>
<tr>
<td><strong>Atrial fibrillation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% atrial fibrillation patients currently treated with anti-coagulation drug therapy or an anti-platelet therapy</td>
<td>94.0</td>
<td>94.2</td>
<td>93.7</td>
</tr>
<tr>
<td><strong>Heart failure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% heart failure patients diagnosed after 1st April 2006 with diagnosis confirmed by an echocardiogram or specialist assessment</td>
<td>95.6</td>
<td>95.1</td>
<td>95.7</td>
</tr>
<tr>
<td>% patients with a current diagnosis of heart failure due to LVD currently treated with an ACE inhibitor or angiotensin receptor blocker</td>
<td>89.2</td>
<td>89.1</td>
<td>89.3</td>
</tr>
<tr>
<td><strong>Primary prevention</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% hypertension patients aged 30 to 74 who have had a cardiovascular risk assessment at the outset of diagnosis</td>
<td>83.8</td>
<td>79.2</td>
<td>80.0</td>
</tr>
<tr>
<td>% hypertension patients who are given lifestyle advice in the for physical activity, smoking cessation, alcohol consumption and diet</td>
<td>79.6</td>
<td>81.6</td>
<td>81.5</td>
</tr>
</tbody>
</table>

Source: Quality and Outcomes Framework 2011/12
The NHS Health Check programme was formally introduced in April 2009 as a key policy to reduce health inequalities and increase life expectancy from preventable CVD conditions.

Based on PCT performance data submitted in 2011-2012, there were 78,650 local authority residents in Derby who were eligible to be invited for an NHS Health Check. Local authorities are mandated to offer the programme to 100% of their eligible population over a five year period, from April 2013. During 2011-2012, 19.1% of eligible residents were invited to attend the programme with an uptake rate of 53.8%.

Local authorities can access a 'Ready Reckoner' that allows them to identify the potential service implications, benefits and cost savings resulting from implementing NHS Health Checks: http://www.healthcheck.nhs.uk/national_resources/ready_reckoner_tools

CHD emergency admission rates (DSRs), for all ages, 2011/14

In 2011/12 the emergency admission rate for CHD, all persons, in Derby was 212.2 per 100,000 (646 admissions). This is higher than England (198.3 per 100,000) and East Midlands (199.4 per 100,000).

Male CHD emergency admission rates are significantly higher than female CHD emergency admission rates.

The emergency admission rate for CHD in 2011/12 for persons living in the most deprived areas of Derby was 302.9. This is 1.9 times greater than emergency admission rates for persons living in the least deprived areas of Derby (157.4).

The emergency admission rate for CHD in 2011/12 for persons living in the least deprived areas of England is 198.3 per 100,000.

The emergency admission rate for CHD in East Midlands in 2011/12 is 199.4 per 100,000.

CHD emergency admission rates (DSRs) for all ages, by quintile of relative deprivation, 2011/12

The emergency admission rates for persons who live in the most deprived areas of England are 2.2 times greater compared to persons who live in the least deprived areas and 2 times greater in East Midlands.

Trend in CHD rates (DSRs), 2004/05 to 2011/12

The emergency admission rate for CHD in Derby has decreased by 37.3% between 2004/05 and 2011/12.

In England it has decreased by 23.1% and in East Midlands it has decreased by 25.9%.
Heart failure emergency admission rates (DSRs), for all ages, 2011/12

In 2011/12 the emergency admission rate for heart failure, all persons, in Derby was 75.9 per 100,000 (286 admissions). This is significantly higher than England (60.7 per 100,000) and East Midlands (62.1 per 100,000).

Male heart failure emergency admission rates are significantly higher than female heart failure emergency admission rates.

Heart failure emergency admission rates (DSRs) for all ages, by quintile of relative deprivation, 2011/12

The emergency admission rate for heart failure in 2011/12 for persons who live in the most deprived areas of Derby was 107.2. This was 3.5 times greater than the emergency admission rates for persons who live in the least deprived areas of Derby (30.7).

Trend in heart failure rates (DSRs), 2004/05 to 2011/12

The emergency admission rate for heart failure in Derby has decreased by 12.1% between 2004/05 and 2011/12.

In England it has decreased by 18% and in East Midlands it has decreased by 21.3%.

Proportion of deaths from heart failure that occur at home or usual place of residence, 2007-2011

40.1% of deaths from heart failure occurred in the usual place of residence in Derby which is a lower proportion than East Midlands (61.3%) and England (58.5%).
Stroke emergency admission rates (DSRs) for all ages, 2011/12

In 2011/12 the emergency admission rate for stroke, all persons, in Derby was 83.0 per 100,000 (301 admissions). This is lower than England (89.5 per 100,000) and East Midlands (84.0 per 100,000).

Male stroke emergency admission rates are significantly higher than female stroke emergency admission rates.

Stroke emergency admission rates (DSRs), by quintile of relative deprivation, 2011/12

The emergency admission rate for stroke in 2011/12 for persons who live in the most deprived areas of Derby was 118.5. This is 1.6 times greater than the emergency admission rates for persons who live in the least deprived areas of Derby (75.4).

Trend in stroke rates (DSRs), 2004/05 to 2011/12

The emergency admission rate for stroke in Derby has increased by 15.6% between 2004/05 and 2011/12. In England it has increased by 3% and in East Midlands it has increased by 2%.

The rate of emergency readmissions within 30 days for Derby is 0.8%, this is lower than England and East Midlands (2.9% and 2.8% respectively).
Primary angioplasty for Derby residents was 100% of all reperfusion for patients diagnosed as STEMI, compared to 95% in England.

The median time to primary angioplasty treatment from a call for help was 94 minutes for Derby residents, this is lower than in East Midlands and England (112 and 111 respectively).

* STEMI is ST elevated myocardial infarctions (as seen in an ECG) and best treated by thrombolysis or primary angioplasty.

Non-STEMI patients can be treated less invasively, but still need specialist management. The proportion of non-STEMIs seen by a member of the cardiology team for Derby residents is 100%, this is higher than East Midlands and England (94.8% and 93.7% respectively).

There were less than 5 deaths recorded within 30 days of hospital admission for STEMI patients resident in Derby in 2011/12. The 30 day mortality rate in East Midlands and England was 9.8% and 8.7% respectively.
Angiography procedure rates (DSRs) for all ages, 2011/12

In 2011/12 the angiography procedure rate in Derby was 178.1 per 100,000 (490 procedures). This is significantly lower than England (278.2 per 100,000) and East Midlands (255.3 per 100,000).

Male angiography rates are 1.6 times greater than female angiography rates in Derby.

Angiography procedure rates (DSRs) for persons who live in the most deprived areas of Derby are 1.2 times greater than those who live in the least deprived areas. In England and East Midlands they are 1.5 and 1.4 times greater respectively.

Trend in angiography rates (DSRs), 2004/05 to 2011/12

Angiography rates in Derby have decreased by 27.9% between 2004/05 and 2011/12. In England and East Midlands they have increased by 8.4% and 25% respectively.
Elective & non-elective angioplasty procedure rates (DSRs) for all ages, 2011/12

CABG procedure rates (DSRs), for all ages, 2011/12

In 2011/12 the all persons angioplasty procedure rate in Derby was 117.4 per 100,000 (302 procedures), 29 per 100,000 elective and 88.4 per 100,000 non-elective. This is higher than England (111 per 100,000) and lower than East Midlands (122.1 per 100,000).

Male angioplasty procedure rates are 3.9 times greater than female angioplasty rates in Derby.

In 2011/12 the CABG procedure rate, all persons, in Derby was 24.5 per 100,000 (70 procedures). This is lower than England (29.5 per 100,000) and similar to East Midlands (24.5 per 100,000).

Trend in Angioplasty rates (DSRs), 2004/05 to 2011/12

Trend in CABG rates (DSRs), 2004/05 to 2011/12

Non-elective angioplasty rates in Derby have increased by 290.2% between 2004/05 and 2011/12. Elective procedure rates have decreased by 21.9%. In England and East Midlands non-elective procedure rates have increased by 74.8% and 151.4% respectively. Elective procedure rates have decreased by 15.7% and decreased by 9.1% respectively.

CABG procedure rates in Derby have decreased by 21.6% between 2004/05 and 2011/12. In England and East Midlands CABG procedure rates have decreased by 25.4% and 29.4% respectively.
Revascularisation rates for persons who live in the most deprived areas of Derby are 1.5 times greater than those who live in the least deprived areas. In England and East Midlands they are 1.6 and 1.6 times greater respectively.

Valve procedure rates in Derby were 14.8 per 100,000 in 2010/11-2011/12, lower than the network average (15.9) and similar to England (14.8).
Heart Transplants by SHA, 2011/12

<table>
<thead>
<tr>
<th>Strategic Health Authority</th>
<th>Rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Midlands</td>
<td>3.8</td>
</tr>
<tr>
<td>North East</td>
<td>3.4</td>
</tr>
<tr>
<td>East Midlands</td>
<td>2.7</td>
</tr>
<tr>
<td>North West</td>
<td>2.7</td>
</tr>
<tr>
<td>East Of England</td>
<td>2.2</td>
</tr>
<tr>
<td>South West</td>
<td>1.9</td>
</tr>
<tr>
<td>South Central</td>
<td>1.7</td>
</tr>
<tr>
<td>South East Coast</td>
<td>1.6</td>
</tr>
<tr>
<td>Yorkshire and The Humber</td>
<td>1.1</td>
</tr>
<tr>
<td>London</td>
<td>1.1</td>
</tr>
</tbody>
</table>

The rate of heart transplantation varies from 1.1 per million in London to 3.8 per million in the West Midlands. This data is not available at a geography lower than strategic health authority.

Stroke management

Percentage of hospital stroke patients discharged to home or usual place of residence, 2011/12

- Derby: 73.1%, 90.9%
- East Midlands: 76.8%, 88.3%
- England: 77.9%, 70.1%

Rate of carotid endarterectomy procedures (DSR’s), 2010/11-2011/12

- Derby: 6.30 per 100,000
- East Midlands: 7.61 per 100,000
- England: 8.72 per 100,000

The proportion of patients under the age of 75 discharged to home or usual place of residence in Derby is 73.1%, which is lower than East Midlands (76.8%) and England (77.9%). 90.9% of patients aged 75 or over are discharged to home, which is higher than East Midlands (68.3%) and England (70.1%).

The rate of carotid endarterectomies performed per 100,000 for Derby is 6.3, which is significantly lower than East Midlands (7.6) and England (8.7). East Midlands is significantly lower than England.

Source: UK Blood & Transplant

Source: HES, Health and Social Care Information Centre, ONS
In Derby the percentage of cardiovascular deaths as a proportion of all deaths was 25.1% for people aged under 75 years and 36.4% for people aged 75 and above. This is higher than England for under 75s (23.8%) and higher than England for those aged 75 and over (34.7%).

CHD makes up the biggest proportion of total deaths (within CVD) for both males and females, 18.2% (6.5% AMI and 11.6% non AMI) and 14.8% (5.4% AMI and 9.4 % non AMI ) respectively in Derby. For males, 5.9% of deaths are due to stroke and 0.9% are due to heart failure. For females, 9.7% of deaths are due to stroke and 1.6% are due to heart failure.
Cardiovascular disease health profile - Derby

CVD mortality rates

CVD mortality rates (DSR's) by gender for all ages, 2009-11

The 2009-11 CVD mortality rate in Derby for all persons was 164.8 per 100,000. This is significantly higher than England (155.6) and higher than East Midlands (157.7).

Male CVD mortality rates in Derby are significantly higher than female CVD mortality rates (196.5 and 135.1 respectively).

In England the mortality rate for persons who live in the most deprived areas was 213.1, 1.4 times greater than the overall mortality rate for England and 1.8 times greater than the mortality rate for persons who are in the least deprived areas. In East Midlands the mortality rate for persons who live in the most deprived areas was 211.9, 1.3 times greater than the overall mortality rate and 1.7 times greater than the mortality rate for persons who live in the least deprived areas.

Source: Quality and Outcomes Framework, 2007/08

CVD by deprivation

All CVD mortality rates (DSRs) for all persons, by quintile of relative deprivation, 2009-11

The mortality rate in 2009-11 for persons who live in the most deprived areas of Derby was 257.1 per 100,000. This is 1.6 times greater than the overall mortality rate for Derby and 2.3 times greater than the mortality rate for persons who live in the least deprived areas of Derby.

In England the mortality rate for persons who live in the most deprived areas was 213.1, 1.4 times greater than the overall mortality rate for England and 1.8 times greater than the mortality rate for persons who are in the least deprived areas. In East Midlands the mortality rate for persons who live in the most deprived areas was 211.9, 1.3 times greater than the overall mortality rate and 1.7 times greater than the mortality rate for persons who live in the least deprived areas.

Source: PHO annual deaths extract, ONS, DCLG
In 2014, the mortality rate for cerebrovascular disease in Derby is predicted to be 28.8 for males and 32.2 for females, this is a 10 year decrease of 43.3% for males and 39.4% for females. In England, the mortality rate is predicted to decrease by 44.4% to 33.1 for males over the same 10 years and by 41.7% to 31.9 for females. The rates in East Midlands are predicted to decrease by 47.7% for males to 29.1 and by 49.2% to 27.9 for females.

Note that due to mortality recording changes introduced for 2011 data, there will be some decreases in CVD numbers, particularly cerebrovascular disease between 2011 and previous years that are not accounted for in population outcomes, but coding rules.
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