Cardiovascular diseases are the main cause of death in the UK causing around 147,300 deaths in England in 2010 (around a third of all deaths). Around 45% of all deaths from CVD are from coronary heart disease (CHD) and more than a quarter from stroke (27%). CHD is the most common cause of death in England and Wales (15% of all deaths in 2010).

This Cardiovascular Disease (CVD) Health Profile brings together a wide range of data on cardiovascular disease in each PCT area in the country and in associated Cardiac & Stroke 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.

Kingston lies within the boundaries of the current South West London Cardiac Network (pictured right).

This information is also available for each cardiac and stroke network, and as an interactive atlas.

Cardiovascular disease PCT health profile
Kingston

Early mortality rates from cardiovascular disease (< 75 years) are significantly lower than the national rate, and have decreased by 58.5% since 1995.

Emergency admission rates for CHD are similar to the national rates, but for stroke the local rate is significantly lower than the national rate.

The mortality rate within 30 days of a STEMI is similar to the national rate.

For people having myocardial infarction reperfusion in 2010, the median time to primary angioplasty treatment from a call for help was 108 minutes in Kingston, this is similar to Thriving London Periphery, but lower than England (108 and 113 respectively).

Stroke patients under 75 years are less likely to be discharged back to their usual place of residence compared to the national picture.

Contact Details: This report, interactive atlases and the accompanying glossary and technical appendix are available to download on the SEPHO website - http://www.sepho.nhs.uk

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Benchmarking

The PCT is benchmarked against the national figure and Office for National Statistics (ONS) clusters. ONS clusters are based on 2001 census data. Two PCTs are similar based on a comparison of a range socio-economic variables and demographic indicators.

Using this method Kingston is classified as a member of the 'Thriving London Periphery' cluster.

Key messages
### 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 Cardiovacular mortality (under 75)</td>
<td>49.5</td>
<td>64.7</td>
<td>36.2</td>
<td>[ ]</td>
<td>118.4</td>
</tr>
<tr>
<td>2 Stroke mortality</td>
<td>40.0</td>
<td>40.9</td>
<td>22.1</td>
<td>[ ]</td>
<td>58.6</td>
</tr>
<tr>
<td>3 Estimated % smokers (16+)</td>
<td>15.1</td>
<td>22.1</td>
<td>0.0</td>
<td>[ ]</td>
<td>33.5</td>
</tr>
<tr>
<td>4 Estimated % obese (16+)</td>
<td>16.7</td>
<td>24.1</td>
<td>0.0</td>
<td>[ ]</td>
<td>30.7</td>
</tr>
<tr>
<td>5 % of long term conditions who smoke</td>
<td>14.6</td>
<td>17.5</td>
<td>11.4</td>
<td>[ ]</td>
<td>27.2</td>
</tr>
<tr>
<td>6 Obs/Exp CHD prevalence</td>
<td>0.61</td>
<td>0.59</td>
<td>0.31</td>
<td>[ ]</td>
<td>0.82</td>
</tr>
<tr>
<td>7 Obs/Exp Hypertension prevalence</td>
<td>0.45</td>
<td>0.44</td>
<td>0.30</td>
<td>[ ]</td>
<td>0.53</td>
</tr>
<tr>
<td>8 CHD emergency admissions</td>
<td>247.9</td>
<td>225.9</td>
<td>145.3</td>
<td>[ ]</td>
<td>399.0</td>
</tr>
<tr>
<td>9 Stroke emergency admissions</td>
<td>60.4</td>
<td>85.7</td>
<td>58.2</td>
<td>[ ]</td>
<td>172.7</td>
</tr>
<tr>
<td>10 30 day mortality in STEMI</td>
<td>2.9</td>
<td>9.3</td>
<td>0.0</td>
<td>[ ]</td>
<td>17.3</td>
</tr>
<tr>
<td>11 % stroke discharged to usual residence</td>
<td>58.6</td>
<td>77.3</td>
<td>56.7</td>
<td>[ ]</td>
<td>97.5</td>
</tr>
<tr>
<td>12 % HF who die at usual place residence</td>
<td>96.7</td>
<td>59.2</td>
<td>17.9</td>
<td>[ ]</td>
<td>98.8</td>
</tr>
<tr>
<td>13 Angiography rates</td>
<td>294.7</td>
<td>272.0</td>
<td>121.3</td>
<td>[ ]</td>
<td>533.9</td>
</tr>
<tr>
<td>14 Revascularisation rates</td>
<td>130.7</td>
<td>136.6</td>
<td>93.7</td>
<td>[ ]</td>
<td>231.4</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 9: Angiography procedures
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The proportion of the population in Kingston which is from black and minority ethnic groups is estimated to be 19.3%. 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’ and ‘White other’ ethnic groups.
Lifestyle estimates for adults

<table>
<thead>
<tr>
<th></th>
<th>Smoking</th>
<th>Binge Drinking</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingston</td>
<td>15.1%</td>
<td>16.0%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Thriving London Periphery</td>
<td>17.3%</td>
<td>15.1%</td>
<td>19.5%</td>
</tr>
<tr>
<td>England</td>
<td>22.1%</td>
<td>20.0%</td>
<td>24.1%</td>
</tr>
</tbody>
</table>

Source: Modelled Estimates from Health Survey for England, 2006-08 - Binge drinking is for 2007-2008 only

Smoking

- Using synthetic estimates from the Health Survey for England it is estimated that 15.1% of the population in Kingston smoke. This is lower than the estimated proportion in England (22.1%) and lower than Thriving London Periphery (17.3%).

Binge drinking (2007-2008)

- It is estimated that 16.0% of the population in Kingston binge drink. This is lower than England (20.0%) and higher than Thriving London Periphery (15.1%).

Adult obesity

- It is estimated that 16.7% of the adult population in Kingston are obese. This is lower than England (24.1%) and lower than Thriving London Periphery (19.5%).

Percent of patients registered with a GP with any combination of registered long-term conditions who smoke, QOF 2010/11

In 2010/11 3.3% (0,680) of adult smokers in Kingston quit using the NHS Stop Smoking Services, a significantly lower percentage than in England (4.1%) and similar percent to in Thriving London Periphery (3.3%).

Source: Smoking cessation 2010/11 ONS Mid year population estimates 2010, Modelled Estimates from Health Survey for England, 2006-08

Percent of patients registered with a GP with any combination of registered long-term conditions who smoke, QOF 2010/11

QOF data shows that the percentage of patients with long-term conditions who smoke in Kingston was 14.6% in 2010/11. This is significantly lower than the rate in England (17.5%) and significantly lower than the rate in Thriving London Periphery (15.3%).

Source: Quality and Outcomes Framework 2010/11
Quality and Outcomes Framework - exceptions

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 2010/11, the exception rate in Kingston was 5.9%. Within England, the exception rate varied between 2.2% to 7.5% for individual PCTs.

Number and percentage of practices with high exception reporting rates

<table>
<thead>
<tr>
<th>Practices with any high exception rates</th>
<th>Total number of practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrial fibrillation</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>Kingston</td>
<td>1</td>
</tr>
<tr>
<td>Thriving London Periphery</td>
<td>50.0%</td>
</tr>
<tr>
<td>England %</td>
<td>15.0%</td>
</tr>
<tr>
<td>England</td>
<td>21.3%</td>
</tr>
</tbody>
</table>

Quality and Outcomes Framework - prevalence

Observed (GP registered) prevalence in 2010/11 versus estimated prevalence in 2011

GPs record information on whether their patients have CHD or have a stroke. This information is crude and does not consider population structure. The estimated prevalence is population structure adjusted, but is for the 16+ population, so does not match the all age population of GP registers.

The observed prevalence for CHD in Kingston is 61.1% of the estimated prevalence. This compares to 58.7% for England and 56.1% for Thriving London Periphery.

The observed prevalence for stroke in Kingston is 57.8% of the estimated prevalence. This compares to 67.4% for England and 62.2% for Thriving London Periphery.

The observed prevalence for hypertension in Kingston is 44.6% of the estimated prevalence. This compares to 44.1% for England and 42.5% for Thriving London Periphery. The gap between recognised and treated hypertension, and actual hypertension levels in the community have been long recognised.

Sources: Quality and Outcomes Framework 2010/11 and modelled estimates of prevalence, Eastern Region Public Health Observatory, December 2011
## Cardiovascular disease health profile - Kingston

### Quality and Outcomes Framework - performance

#### Coronary heart disease

<table>
<thead>
<tr>
<th></th>
<th>Kingston</th>
<th>Thriving London Periphery</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% newly diagnosed angina patients referred for exercise testing or assessment</td>
<td>95.0</td>
<td>95.0</td>
<td>94.6</td>
</tr>
<tr>
<td>% CHD patients with record of blood pressure in last 15 months</td>
<td>97.1</td>
<td>97.2</td>
<td>97.8</td>
</tr>
<tr>
<td>% CHD patients in whom last blood pressure reading was 150/90 or less</td>
<td>89.0</td>
<td>89.4</td>
<td>90.2</td>
</tr>
<tr>
<td>% CHD patients with a record of total cholesterol in last 15 months</td>
<td>93.6</td>
<td>93.0</td>
<td>93.7</td>
</tr>
<tr>
<td>% CHD patients in whom last cholesterol measurement was 5mmol/l or less</td>
<td>81.7</td>
<td>81.5</td>
<td>82.1</td>
</tr>
<tr>
<td>% CHD patients taking aspirin, an alternative anti-platelet therapy or an anti-coagulant in last 15 months</td>
<td>93.5</td>
<td>93.6</td>
<td>93.5</td>
</tr>
<tr>
<td>% CHD patients currently treated with beta blocker</td>
<td>69.3</td>
<td>72.5</td>
<td>73.5</td>
</tr>
<tr>
<td>% patients with history of myocardial infarction currently treated with ACE inhibitor or angiotensin II antagonist</td>
<td>89.5</td>
<td>89.1</td>
<td>88.8</td>
</tr>
<tr>
<td>% CHD patients immunised against influenza in Sept-March 05</td>
<td>94.0</td>
<td>92.2</td>
<td>92.4</td>
</tr>
</tbody>
</table>

#### Stroke

<table>
<thead>
<tr>
<th></th>
<th>Kingston</th>
<th>Thriving London Periphery</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% stroke patients with a record of blood pressure in last 15 months</td>
<td>96.7</td>
<td>96.2</td>
<td>96.8</td>
</tr>
<tr>
<td>% stroke patients whose blood pressure was 150/90 or less</td>
<td>88.9</td>
<td>87.9</td>
<td>88.6</td>
</tr>
<tr>
<td>% stroke patients with record of cholesterol in last 15 months</td>
<td>92.5</td>
<td>90.7</td>
<td>91.5</td>
</tr>
<tr>
<td>% stroke patients whose cholesterol was 5mmol/l or less</td>
<td>74.7</td>
<td>75.5</td>
<td>77.3</td>
</tr>
<tr>
<td>% stroke patients immunised preceding Sept-March</td>
<td>90.8</td>
<td>89.6</td>
<td>89.6</td>
</tr>
<tr>
<td>% non-haemorrhagic/with history of TIA stroke patients taking anti-platelet agent/anti-coagulant</td>
<td>94.4</td>
<td>93.5</td>
<td>93.7</td>
</tr>
<tr>
<td>% new patients with a stroke referred for further investigation</td>
<td>91.2</td>
<td>88.3</td>
<td>89.8</td>
</tr>
</tbody>
</table>

#### Atrial fibrillation

<table>
<thead>
<tr>
<th></th>
<th>Kingston</th>
<th>Thriving London Periphery</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% atrial fibrillation patients currently treated with anti-coagulation drug therapy or an anti-platelet therapy</td>
<td>93.8</td>
<td>93.4</td>
<td>93.6</td>
</tr>
</tbody>
</table>

#### Heart failure

<table>
<thead>
<tr>
<th></th>
<th>Kingston</th>
<th>Thriving London Periphery</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% heart failure patients diagnosed after 1st April 2006 with diagnosis confirmed by an echocardiogram or specialist assessment</td>
<td>96.5</td>
<td>95.5</td>
<td>95.8</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>91.6</td>
<td>90.4</td>
<td>89.5</td>
</tr>
</tbody>
</table>

#### Hypertension

<table>
<thead>
<tr>
<th></th>
<th>Kingston</th>
<th>Thriving London Periphery</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% hypertension patients with record of blood pressure in last 9 months</td>
<td>91.6</td>
<td>90.7</td>
<td>91.6</td>
</tr>
<tr>
<td>% hypertension patients (with record in last 9 months) in whom last blood pressure was 150/90 or less</td>
<td>79.0</td>
<td>78.2</td>
<td>79.3</td>
</tr>
</tbody>
</table>

Source: Quality and Outcomes Framework 2010/11
Coronary heart disease emergency admission rates

In 2010/11 the emergency admission rate for CHD, all persons, in Kingston was 247.9 per 100,000 (469 admissions). This is higher than England (225.9 per 100,000) and significantly higher than Thriving London Periphery (191.7 per 100,000).

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

The emergency admission rates for persons who live in the most deprived areas of England are 2.1 times greater compared to persons who live in the least deprived areas and 1.8 times greater in Thriving London Periphery.

The emergency admission rate for CHD in 2010/11 for persons living in the most deprived areas of Kingston was 326.9. This is 1.5 times greater than emergency admission rates for persons living in the least deprived areas of Kingston (219).

The emergency admission rate for CHD in Kingston has decreased by 4.5% between 2003/04 and 2010/11.

In England it has decreased by 23.9% and in Thriving London Periphery it has decreased by 15.3%.
Heart failure emergency admission rates (DSRs), for all ages, 2010/11

In 2010/11 the emergency admission rate for heart failure, all persons, in Kingston was 50.6 per 100,000 (114 admissions). This is lower than England (59.8 per 100,000) and lower than Thriving London Periphery (59 per 100,000).

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

Trend in heart failure rates (DSRs), 2003/04 to 2010/11

The emergency admission rate for heart failure in Kingston has decreased by 11.6% between 2003/04 and 2010/11.

In England it has decreased by 22% and in Thriving London Periphery it has decreased by 18.4%.

Proportion of deaths from heart failure that occur at home or usual place or residence, 2006-2010

96.7% of deaths from heart failure occurred in the usual place of residence in Kingston which is a higher proportion than Thriving London Periphery (65.4%) and England (59.2%).
Primary angioplasty in Kingston was 100% of all reperfusion for STEMI, compared to 78.7% in England.

The median time to primary angioplasty treatment from a call for help was 108 minutes in Kingston, this is similar to Thriving London Periphery, but lower than England (108 and 113 respectively).

Non-STEMIs can be treated less invasively, but still need specialist management. The proportion of nSTEMIs seen by a member of the cardiology team in Kingston is 92.9%, this is higher than Thriving London Periphery and England (89.3% and 92.2% respectively).

The 30 day mortality rate for STEMI was recorded as 2.9% in Kingston during 2008-2010, this is lower than Thriving London Periphery and England (7.2% and 9.3% respectively).

Source: Myocardial Ischaemia National Audit Project (MINAP)
Angiography procedure rates (DSRs) for all ages, 2010/11

In 2010/11 the angiography rate in Kingston was 294.7 per 100,000 (490 procedures). This is higher than England (272 per 100,000) and significantly higher than Thriving London Periphery (254.2 per 100,000).

Male angiography rates are 1.9 times greater than female angiography rates in Kingston.

Angiography rates in Kingston have decreased by 11.2% between 2003/04 and 2010/11. In England and Thriving London Periphery they have increased by 7.5% and decreased by 2.6% respectively.

Angiography rates for persons who live in the most deprived areas of Kingston are 1.6 times greater than those who live in the least deprived areas. In England and Thriving London Periphery they are 1.5 and 1.4 times greater respectively.

Trend in angiography rates (DSRs), 2003/04 to 2010/11

Angiography procedure rates (DSRs) for all ages, by quintile of relative deprivation, 2010/11
Non-elective angioplasty rates in Kingston have increased by 4.8% between 2003/04 and 2010/11. Elective procedure rates have decreased by 23.1%. In England and Thriving London Periphery non-elective procedure rates have increased by 92.8% and 53.7% respectively. Elective procedure rates have increased by 1.9% and increased by 15.6% respectively.

CABG procedure rates in Kingston have decreased by 45.6% between 2003/04 and 2010/11. In England and Thriving London Periphery CABG procedure rates have decreased by 26.2% and 23.5% respectively.

Male angioplasty rates are 3.2 times greater than female angioplasty rates in Kingston.

In 2010/11 the all persons angioplasty rate in Kingston was 105.4 per 100,000 (171 procedures), 48.9 elective and 56.5 non-elective. This is lower than England (106.9 per 100,000) and higher than Thriving London Periphery (102.6 per 100,000).

In 2010/11 the CABG rate, all persons, in Kingston was 25.3 per 100,000 (41 procedures). This is lower than England (29.6 per 100,000) and lower than Thriving London Periphery (28.7 per 100,000).

Non-elective angioplasty rates in Kingston have increased by 4.8% between 2003/04 and 2010/11. Elective procedure rates have decreased by 23.1%. In England and Thriving London Periphery non-elective procedure rates have increased by 92.8% and 53.7% respectively. Elective procedure rates have increased by 1.9% and increased by 15.6% respectively.

CABG procedure rates in Kingston have decreased by 45.6% between 2003/04 and 2010/11. In England and Thriving London Periphery CABG procedure rates have decreased by 26.2% and 23.5% respectively.
Valve procedure rates (DSRs), 2009/10-2010/11

Valve procedure rates in Kingston were 13 per 100,000 people in 2009/10-2010/11, lower than the cluster average (15.7) and lower than England (14.6).

Revascularisation rates (DSRs) for all ages, by quintile of relative deprivation, 2010/11

Revascularisation rates for persons who live in the most deprived areas of Kingston are 1.3 times greater than those who live in the least deprived areas. In England and Thriving London Periphery they are 1.6 and 1.4 times greater respectively.

Valve surgery

Valve procedure rates (DSRs), 2009/10-2010/11

Valve procedure rates in Kingston were 13 per 100,000 people in 2009/10-2010/11, lower than the cluster average (15.7) and lower than England (14.6).
The rate of heart transplantation varies from 1.0 per million in London to 3.5 per million in the West Midlands. This data is not available at a geography lower than strategic health authority.

<table>
<thead>
<tr>
<th>Strategic Health Authority</th>
<th>Rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Midlands</td>
<td>3.5</td>
</tr>
<tr>
<td>East Of England</td>
<td>2.6</td>
</tr>
<tr>
<td>North West</td>
<td>2.5</td>
</tr>
<tr>
<td>South East Coast</td>
<td>2.3</td>
</tr>
<tr>
<td>South Central</td>
<td>2.0</td>
</tr>
<tr>
<td>Yorkshire &amp; The Humber</td>
<td>1.9</td>
</tr>
<tr>
<td>North East</td>
<td>1.5</td>
</tr>
<tr>
<td>South West</td>
<td>1.1</td>
</tr>
<tr>
<td>East Midlands</td>
<td>1.1</td>
</tr>
<tr>
<td>London</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: UK Blood & Transplant

The procedure rate for pacemaker implants in Kingston was 612.3. This is higher than England (528.0).

The procedure rates for Implantable cardioverter-defibrillators in Kingston were 63.8. This is lower than England (72.0).

The procedure rates for Cardiac resynchronisation therapy devices in Kingston were 215.1. This is higher than England (114.0).

Source: Cardiac Rhythm Audit, 2010
Stroke emergency admission rates (DSRs) for all ages, 2010/11

In 2010/11 the emergency admission rate for stroke in Kingston was 60.4 per 100,000 (121 admissions). This is significantly lower than England (85.7 per 100,000) and significantly lower than Thriving London Periphery (81.5 per 100,000).

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

Stroke emergency admission rates (DSRs), by quintile of relative deprivation, 2010/11

The emergency admission rate for stroke in 2010/11 for persons who live in the most deprived areas of Kingston was 71.1. This is 2.1 times greater than the emergency admission rates for persons who live in the least deprived areas of Kingston (33.4).

Trend in stroke rates (DSRs), 2003/04 to 2010/11

The emergency admission rate for stroke in Kingston has decreased by 22% between 2003/04 and 2010/11. In England it has decreased by 4.7% and in Thriving London Periphery it has decreased by 1%.

The rate of re-admissions within 30 days for Kingston is 10.6%, this is higher than England and Thriving London Periphery (5.5% and 3.0% respectively).
The rate of TIA cases with high risk of stroke treated within 24 hrs for Kingston is 71.4%, which is higher than England and lower than Thriving London Periphery (70.6% and 88.1% respectively).

The rate of patients spending 90% of their time on a stroke unit following stroke for Kingston is 89.7%, which is higher than England and lower than Thriving London Periphery (81.8% and 90.6% respectively).

**Stroke Care**

**Percentage spending 90% of their time on a stroke unit following stroke, July to September 2011**

- Kingston: 89.7%
- Thriving London Periphery: 90.6%
- England: 81.8%

**TIA cases with high risk of stroke treated within 24 hours, July to September 2011**

- Kingston: 71.4%
- Thriving London Periphery: 88.1%
- England: 70.6%

Source: HES, The NHS Information Centre for health and social care,

The proportion of patients under the age of 75 discharged to home or usual place of residence in Kingston is 58.6%, which is lower than Thriving London Periphery (69.4%) and significantly lower than England (77.3%).

45.1% of patients aged 75 or over are discharged to home, which is lower than Thriving London Periphery (57.4%) and England (70.2%).

The level of carotid endarterectomies performed per 100,000 for Kingston is 5.5, which is significantly lower than England (8.8). Thriving London Periphery is significantly lower than England.

The rate TIA cases with high risk of stroke treated within 24 hrs for Kingston is 71.4%, this is higher than England and lower than Thriving London Periphery (70.6% and 88.1% respectively). The rate patients spending 90% of their time on a stroke unit following stroke for Kingston is 89.7%, this is higher than England and lower than Thriving London Periphery (81.8% and 90.6% respectively).
All CVD mortality rates (DSRs) in persons under 75 yrs: 1995 to 2012

In 2010 the all CVD mortality rate in Kingston for persons under 75 yrs was 49.5, a decrease of 58.5% from 1995. The former CVD target was set to reduce mortality rates from all CVD by 2009-11 by at least 40% in people under 75 years from a 1995/97 baseline. This target has already been met in England and in the Thriving London Periphery region and has been met in Kingston. The target ended in June 2010.

The forecast decrease in the mortality rate (dotted line) for CVD in Kingston by 2012 is 63.5%. For England, the forecast decrease is 61.6% and for Thriving London Periphery it is 59.3%.

Contribution of CVD deaths to overall mortality

In Kingston the percentage of cardiovascular deaths as a proportion of all deaths was 22.5% for people aged under 75 years and 37.3% for people aged 75 and above. This is lower than England for under 75s (24.6%) and higher than England for those aged 75 and over (36.4%).

CHD makes up the biggest proportion of total deaths (within CVD) for both males and females, 15.7% (6.1% AMI and 9.6% non AMI) and 11.9% (4.7% AMI and 7.2 % non AMI ) respectively in Kingston. For males, 7.2% of deaths are due to stroke and 2.3% are due to heart failure. For females, 11.7% of deaths are due to stroke and 2.6% are due to heart failure.


**CVD mortality rates**

CVD mortality rate (DSR) by gender for all ages, 2008-10

- Male CVD mortality rates in Kingston are significantly higher than female CVD mortality rates (167.7 and 121.4 respectively).

The 2008-10 CVD mortality rate in Kingston for all persons was 143.2 per 100,000. This is significantly lower than England (167) and lower than Thriving London Periphery (151.6).

Male CVD mortality rates in Kingston are significantly higher than female CVD mortality rates (167.7 and 121.4 respectively).

In England the mortality rate for persons who live in the most deprived areas was 229.6, 1.4 times greater than the overall rate and 1.8 times greater than in the least deprived areas. In Thriving London Periphery the mortality rate for persons who live in the most deprived areas was 193.9, 1.3 times greater than the overall rate and 1.7 times greater than in the least deprived areas.

Source: Quality and Outcomes Framework, 2007/08

*Primary cause of death within CVD*

Source: ONS 2006 – based subnational population projections by sex and quinary age

*Source: NCHOD (Compendium of Health)*

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**CVD by deprivation**

All CVD mortality rates (DSRs) for all persons, by quintile of relative deprivation, 2008-10

The mortality rate in 2008-10 for persons who live in the most deprived areas of Kingston was 194.1 per 100,000. This is 1.4 times greater than the overall mortality rate for Kingston and 1.7 times greater than the mortality rate for persons who live in the least deprived areas of Kingston.

In England the mortality rate for persons who live in the most deprived areas was 229.6, 1.4 times greater than the overall rate and 1.8 times greater than in the least deprived areas. In Thriving London Periphery the mortality rate for persons who live in the most deprived areas was 193.9, 1.3 times greater than the overall rate and 1.7 times greater than in the least deprived areas.

Source: PHO annual deaths extract, ONS

*Source: HES, The NHS Information Centre for health and social care, ONS, DCLG*
The forecast decrease in the mortality rate for stroke between 1996 and 2012 for Kingston is 49.4% for males and 43.8% for females. For England, the forecast decrease is 55.3% and 50.2% for males and females and for Thriving London Periphery it is 50.4% and 51.2% respectively.

Trend in stroke mortality rates, all ages, 1996-2012

The forecast decrease in the mortality rate for CHD between 1996 and 2012 for Kingston is 60.6% for males and 56.5% for females. For England, the forecast decrease is 60.8% and 62.6% for males and females and for Thriving London Periphery it is 63% and 64.1% respectively.

Trend in CHD mortality rates, all ages, 1996-2012

The forecast decrease in the mortality rate for stroke between 1996 and 2012 for Kingston is 49.4% for males and 43.8% for females. For England, the forecast decrease is 55.3% and 50.2% for males and females and for Thriving London Periphery it is 50.4% and 51.2% respectively.
The expenditure per head for all circulatory diseases in Kingston was £148.38 in 2010/11, £16.30 higher than England and £2.64 lower than the Thriving London Periphery comparator area.

The outcomes used in the Spend and outcomes graph above are mortality for all ages from this profile. For cardiovascular disease in Kingston the graph shows similar mortality outcomes and similar weighted spend compared to the England average.

Please note that assignment to a quadrant (e.g., lower spend, worse outcome) is made on the basis of a single outcome indicator and choosing a different outcome (e.g., a quality of care measure rather than a mortality measure) could potentially shift the outcome quadrant.
This report has been compiled by

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