

Cardiovascular disease PCT health profile

Stockton-on-Tees

Cardiovascular diseases are the main cause of death in the UK causing around 156,800 deaths in England in 2008 (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 (28%). CHD is the most common cause of death in England and Wales (15% of all deaths).

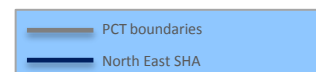
These Cardiovascular Disease (CVD) Health Profiles bring together a wide range of data on cardiovascular disease in each PCT area in the country and in associated Cardiac & Stroke Networks. Its aim is to provide information to health care professionals, commissioners and other interested parties about CVD issues in their local community, as an aid to planning and development.

Stockton-on-Tees lies within the boundaries of the current North East SHA and is part of North of England Cardiovascular Network.

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



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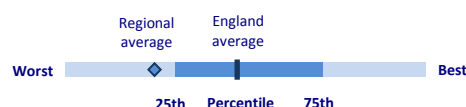
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Contact Details: This report, interactive atlases and the accompanying glossary and technical appendix are available to download on the SEPHO website - <http://www.sepho.nhs.uk>

Summary Indicators

Indicator	Local Value	Eng Avg	Eng Worst	England Range	Eng Best
1 CVD mortality (under 75)	78.0	70.4	121.8		46.3
2 Change in CVD mortality (%)	54.8	50.1	33.8		59.9
3 AMI mortality (under 75)	25.5	16.3	36.0		6.6
4 Stroke mortality (under 75)	18.0	12.8	25.9		7.8
5 Abs gap (rate) in quintiles CVD mort	113.8	75.0	130.2		-3.5
6 Rel gap (%) in quintiles CVD mort	208.1	183.9	550.7		-7.5
7 Estimated % smokers (16+)	26.9	22.2	35.2		12.0
8 Estimated % obese (16+)	29.8	24.2	32.8		13.2
9 4 week quitters per smokers (%)	4.2	4.0	2.2		7.5
10 Obs/Exp CHD prevalence	0.68	0.61	0.31		0.84
11 Obs/Exp Hypertension prevalence	0.44	0.44	0.32		0.52
12 CHD emergency admissions	255.9	205.3	379.1		125.1
13 Stroke emergency admissions	121.2	104.2	199.6		67.1
14 Primary angioplasty call median time	83.0	112.0	652.0		0.0
15 Stroke patients discharged home (%)	88.1	78.5	56.7		97.5
16 CHD expenditure per pop	35.1	41.1	7.2		111.9
17 Cerebrovascular expenditure per pop	14.1	21.5	9.9		50.6
18 Statins cost in CHD population*	180	219	362		144

- Significantly better than England average
- Significantly worse than England average
- Not significantly different from England average
- No significance available



Key messages

Mortality rates from CVD are significantly higher than the national rate, and have decreased by 54.8% since 1995-7.

The absolute gap in CVD mortality for persons under 75 years between the most deprived and least deprived local areas has decreased by 12.1% between 2001 and 2009. The relative gap has increased from 161.8% to 208.1% respectively.

The cost of total statin prescribing relative to the local population with CHD was lower compared to the national picture.

For people having myocardial infarction reperfusion, the median call to treatment time to receive thrombolysis or primary angioplasty was higher than the national time.

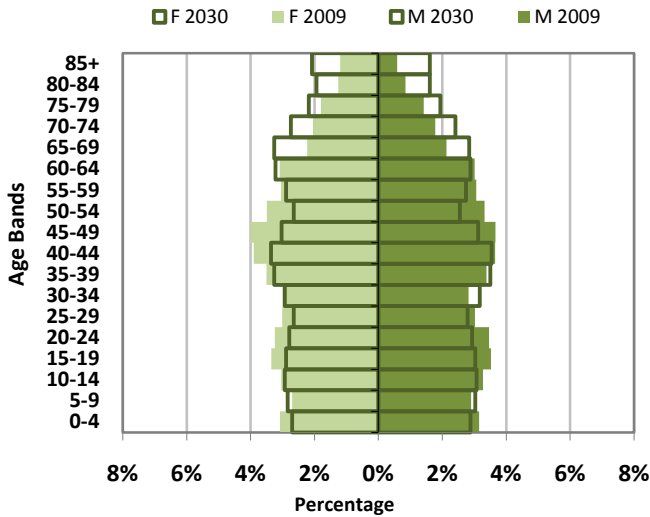
Stroke patients under 75 years are more likely to be discharged back to their usual place of residence compared to the national picture.

1. Directly standardised rate per 100,000, 2007-09 under 75. 2. Percentage change in rate, 1995-97 to 2007-09. 3. Directly standardised rate per 100,000 under 75, 2007-09. 4. Directly standardised rate per 100,000 under 75, 2007-09. 5. Gap in rate between most and least deprived 20% population, under 75, 2009. 6. Gap in rate between most and least deprived 20% population, <75, 2009. 7. Percentage estimate of smokers, 16+, 2006-08. 8. Percentage estimate of obese adults, 16+, 2006-08. 9. Quitters as a proportion (%) of estimated smokers, 2009/10. 10. Ratio of 2009/10 CHD QOF disease registers to estimated prevalence in 2009. 11. Ratio of 2009/10 hypertension QOF disease registers to estimated prevalence in 2009. 12. Directly standardised rate per 100,000, 2009/10. 13. Directly standardised rate per 100,000, 2009/10. 14. Median call time to treatment (mins), 2007-09. 15. % of all patients with stroke under 75, 2009/10. 16. Spend (£) per head of population, 2009/10. 17. Spend (£) per head of population, 2009/10. 18. Spend (£) per CHD population,

* Lower costs for statin prescribing have been highlighted as good- in line with cost pressures on the NHS. However, it is important to note that low costs may also indicate underprescribing

Demographic profile

Age profile and population projections in Stockton-on-Tees



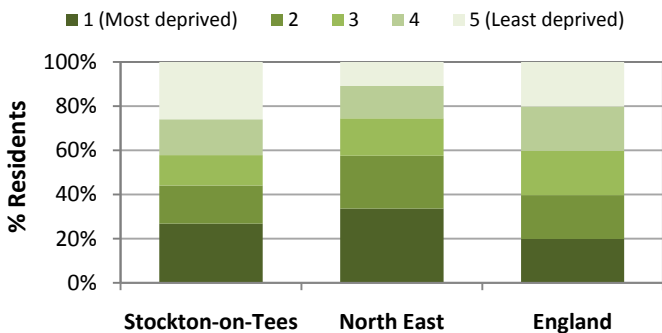
The population estimate of Stockton-on-Tees in 2009 was 191,051 and is projected to increase to 211,400 in 2030.

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

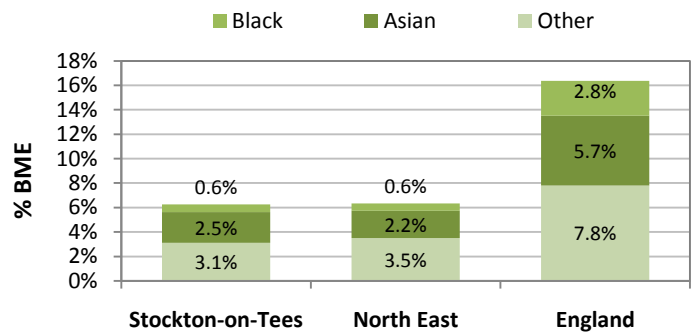
The percentage of the population aged 40 yrs and over is expected to increase in Stockton-on-Tees from 23.5% to 25.2% for males and increase from 26.1% to 27.3% for females by 2030. This age group in the North East population is expected to increase from 24.2% to 25.8% for males and increase from 26.9% to 27.6% for females. In England it is expected to increase from 23.4% to 25.1% for males and increase from 25.7% to 26.8% for females.

Source: Office for National Statistics (ONS) 2009 MYE & 2006-based subnational population projections

National deprivation structure (IMD 2007)



Ethnicity estimated in 2007



Source: IMD 2007, Department of Communities and Local Government (DCLG)

Source: ONS Resident Population Estimates by Ethnic Group, 2007

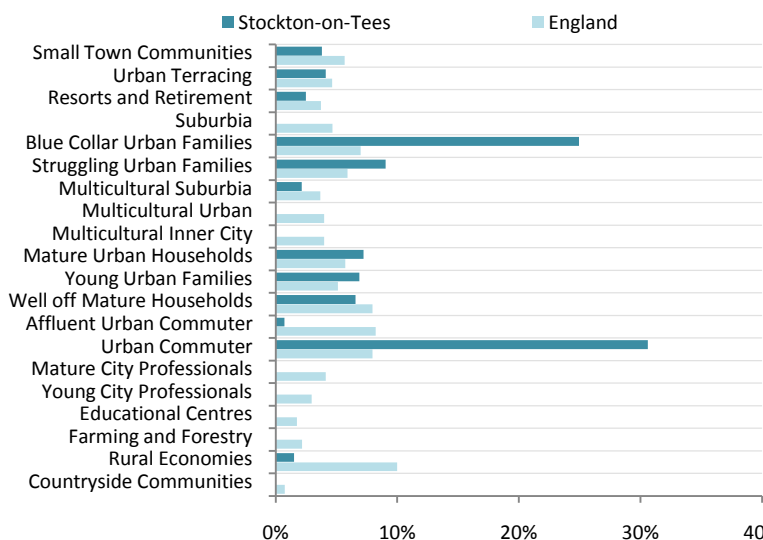
Stockton-on-Tees has 26.8% of its population in the most deprived national quintile and 30% of the population in the least deprived quintile.

The proportion of the population in Stockton-on-Tees which is from black and minority ethnic groups is estimated to be 6.3%. 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.

Geodemographic segmentation

Percentage of local population by segmentation

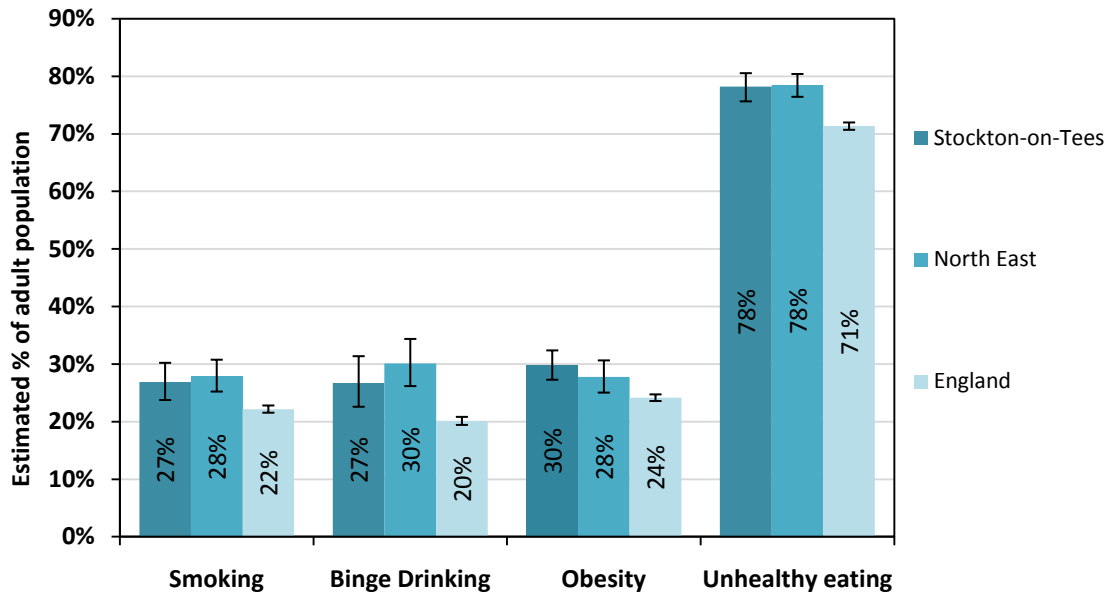
Percentage of CVD deaths by segmentation



Source: ONS Output Area Classification, PHO annual deaths extract

Lifestyle behaviours

Synthetic lifestyle estimates for adults from Health Survey for England, 2006-08



Source: Modelled Estimate from Health Survey for England
Note: Binge drinking is for 2007-2008 only

Smoking

- Using synthetic estimates from the Health Survey for England it is estimated that 26.9% of the population in Stockton-on-Tees smoke. This is significantly higher than the estimated proportion in England (22.2%) and lower than North East (27.9%).

Binge drinking (2007-2008)

- It is estimated that 26.7% of the population in Stockton-on-Tees binge drink. This is significantly higher than England (20.1%) and lower than North East (30.1%).

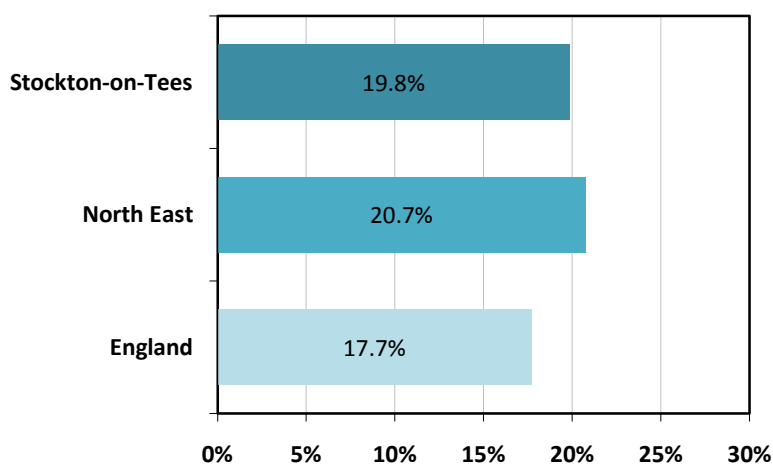
Adult obesity

- It is estimated that 29.8% of the adult population in Stockton-on-Tees are obese. This is significantly higher than England (24.2%) and higher than North East (27.8%).

Unhealthy Eating (% not consuming 5 or more portions of fruit and vegetables per day)

- It is estimated that 78.2% of the population in Stockton-on-Tees do not eat healthily. This is significantly higher than England (71.3%) and lower than North East (78.5%).

Percent of patients registered with a GP with any combination of registered long-term conditions who smoke, QOF 2009/10



QOF data shows that the percentage of patients with long-term conditions who smoke in Stockton-on-Tees was 19.8% in 2009/10. This is higher than the rate in England (17.7%) and lower than the rate in North East (20.7%).

Source: Quality and Outcomes Framework 2009/10

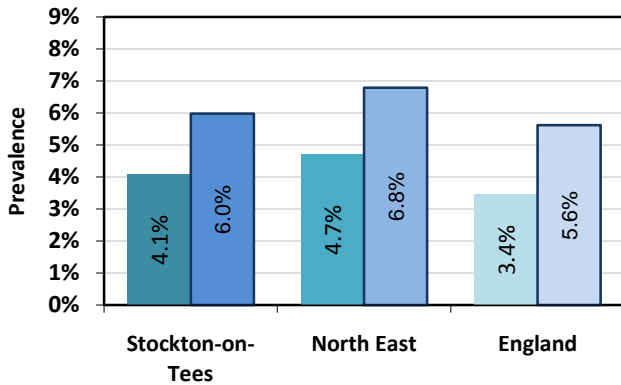
Quality and Outcomes Framework - prevalence

Observed

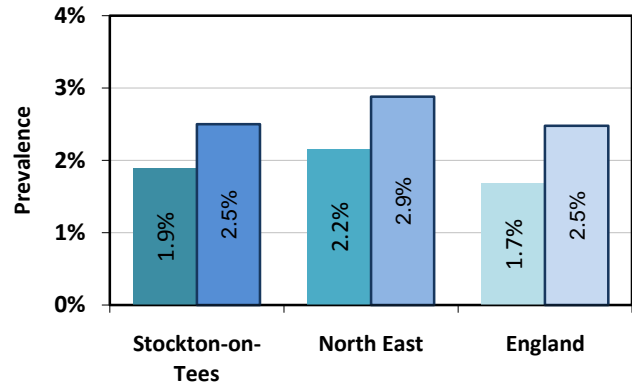
Estimated

Observed (GP registered) prevalence in 2009/10 versus estimated prevalence in 2009

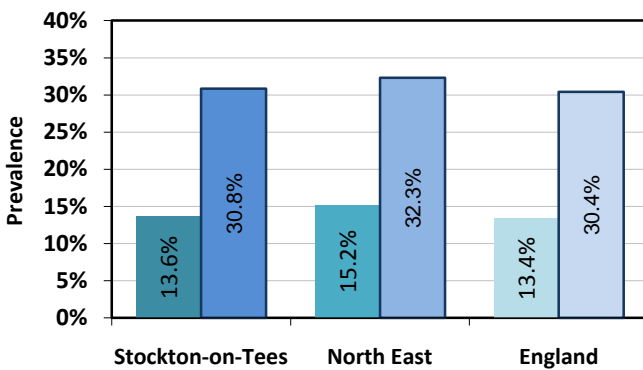
Coronary heart disease



Stroke



Hypertension



GPs record information on whether their patients have CHD or have a stroke. This information is crude and does not consider population structure. Estimated prevalence does take into account the population structure and the known incidence in various sub groups of the population.

The observed prevalence for CHD in Stockton-on-Tees is 68.2% of the estimated prevalence. This compares to 61.2% for England and 69.2% for North East.

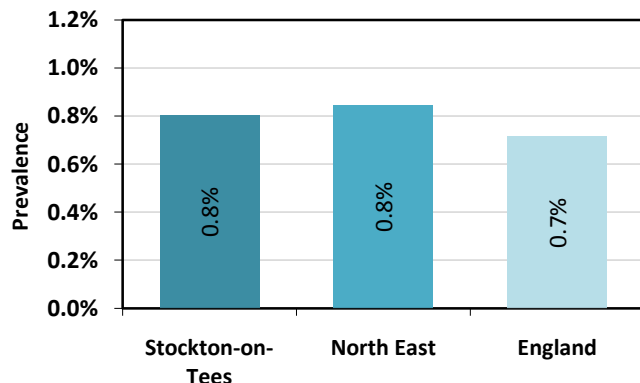
The observed prevalence for stroke in Stockton-on-Tees is 75.8% of the estimated prevalence. This compares to 67.9% for England and 74.7% for North East.

The observed prevalence for hypertension in Stockton-on-Tees is 44.1% of the estimated prevalence. This compares to 43.9% for England and 46.9% for North East. The gap between recognised and treated hypertension, and actual hypertension levels in the community have been long recognised.

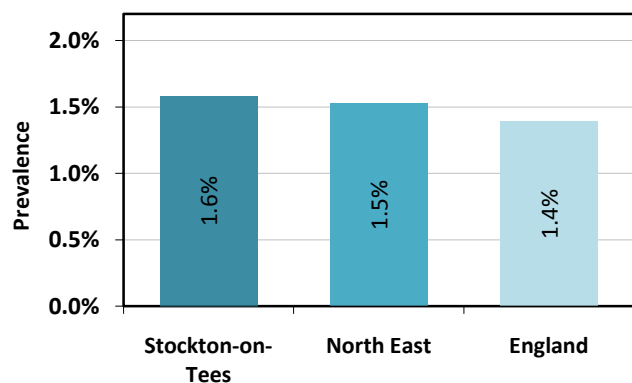
Sources: Quality and Outcomes Framework 2009/10 and modelled estimates of prevalence, Eastern Region Public Health Observatory, November 2008

Observed (GP registered) prevalence in 2009/10

Heart failure



Atrial fibrillation



Source: Quality and Outcomes Framework 2009/10

The observed prevalence for heart failure in Stockton-on-Tees is 0.80%. This is lower than North East (0.84%), but higher than England (0.72%).

The observed prevalence for atrial fibrillation in Stockton-on-Tees is 1.58%. This is higher than North East (1.53%) and England (1.39%).

No estimated prevalences are currently produced for heart failure and atrial fibrillation.

Quality and Outcomes Framework - performance

2009/10

Significantly lower than England

The same as England

Significantly higher than England

Coronary heart disease

	Stockton-on-Tees	North East	England
% newly diagnosed angina patients referred for exercise testing or assessment	95.7	95.2	94.7
% CHD patients with record of blood pressure in last 15 months	98.1	98.3	97.7
% CHD patients in whom last blood pressure reading was 150/90 or less	90.9	90.2	89.8
% CHD patients with a record of total cholesterol in last 15 months	95.7	94.8	93.7
% CHD patients in whom last cholesterol measurement was 5mmol/l or less	84.9	83.1	82.1
% CHD patients taking aspirin, an alternative anti-platelet therapy or an anti-coagulant in last 15 months	94.6	94.9	93.9
% CHD patients currently treated with beta blocker	81.8	78.2	73.7
% patients with history of myocardial infarction currently treated with ACE inhibitor or angiotensin II antagonist	93.6	90.6	89.1
% CHD patients immunised against influenza in Sept-March 05	93.8	92.8	91.9

Stroke

	Stockton-on-Tees	North East	England
% stroke patients with a record of blood pressure in last 15 months	97.4	97.4	96.8
% stroke patients whose blood pressure was 150/90 or less	89.2	87.9	88.1
% stroke patients with record of cholesterol in last 15 months	94.0	92.5	91.4
% stroke patients whose cholesterol was 5mmol/l or less	82.2	78.3	77.3
% stroke patients immunised preceding Sept-March	90.6	89.9	89.0
% non-haemorrhagic/with history of TIA stroke patients taking anti-platelet agent/anti-coagulant	94.4	94.7	94.1
% new patients with a stroke referred for further investigation	88.1	91.2	90.2

Atrial fibrillation

% atrial fibrillation patients currently treated with anti-coagulation drug therapy or an anti-platelet therapy	94.0	94.0	93.6
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Heart failure

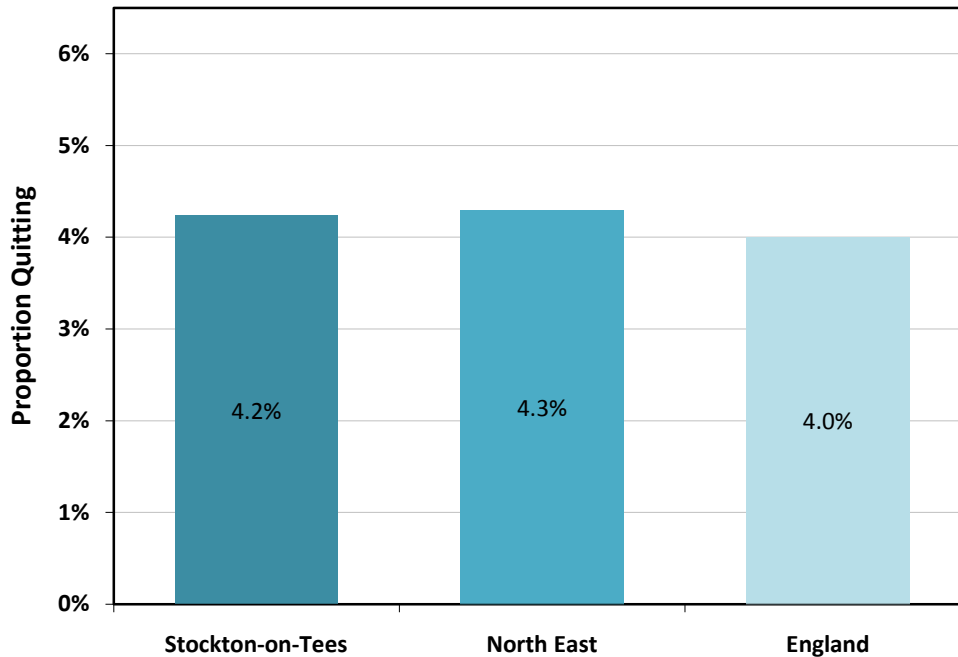
% heart failure patients diagnosed after 1st April 2006 with diagnosis confirmed by an echocardiogram or specialist assessment	97.2	96.7	95.9
% patients with a current diagnosis of heart failure due to LVD currently treated with an ACE inhibitor or angiotensin receptor blocker	91.5	91.4	90.0

Hypertension

% hypertension patients with record of blood pressure in last 9 months	92.9	92.2	91.5
% hypertension patients (with record in last 9 months) in whom last blood pressure was 150/90 or less	80.5	79.3	78.7

Stop Smoking data

4 week quitters as a proportion of the synthetic estimate of smokers, 2009/10



Source: Smoking cessation 2009/10 ONS Mid year population estimates 2008, Health Survey for England 2006-08

Although large numbers of adults are quitting smoking using the NHS stop smoking services, they are only a relatively small proportion of the total estimated numbers of adults smoking.

In 2009/10 4.2% (1,750) of smokers in Stockton-on-Tees quit using the NHS Stop Smoking Services, a higher percent than in England (4%) and lower percent than in North East (4.3%).

This figure differs from that used in the Tobacco Control Profiles and elsewhere, which use the number of people who quit smoking as a proportion of the total population aged over 16. These profiles use the estimated number of smokers in the population as the denominator.

Quality and Outcomes Framework - exceptions

PCT	2009/10 EER
Stockton-on-Tees	7.2%
North East	5.2%
England	5.4%

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 2009/10, the exception rate in Stockton-on-Tees was 7.2%. Within England, the exception rate varied between 2.2% to 7.5% for individual PCTs.

Source: Quality and Outcomes Framework 2009/10

Number and percentage of practices with high exception reporting rates

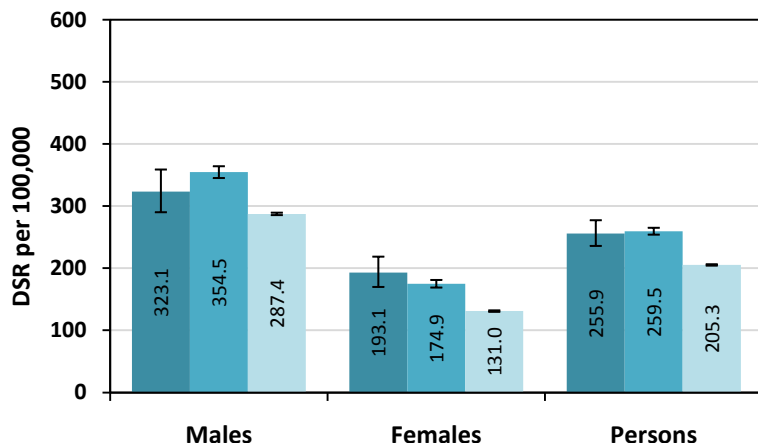
	Atrial fibrillation	Coronary heart disease	Heart failure	Hypertension	Stroke & TIA	Practices with any high exception rates	Total number of practices
Stockton-on-Tees	1	2	1	3	2	4	26
Stockton-on-Tees %	3.8%	7.7%	3.8%	11.5%	7.7%	15.4%	26
North East %	3.7%	4.7%	2.5%	2.7%	5.5%	7.7%	403
England %	2.9%	4.6%	2.6%	1.9%	5.3%	9.5%	8293

Source: Quality and Outcomes Framework 2009/10

Coronary heart disease emergency admission rates

■ Stockton-on-Tees ■ North East ■ England ◆ Stockton-on-Tees ◆ North East ▲ England

CHD emergency admission rates (DSRs), for all ages, 2009/10

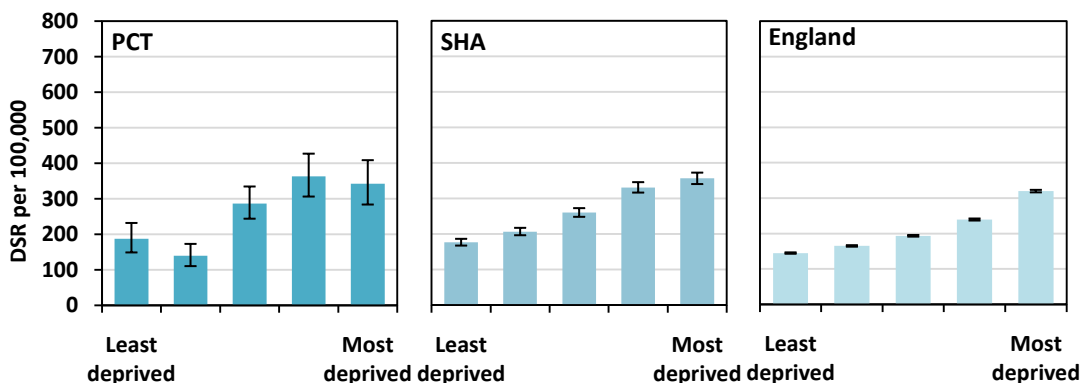


In 2009/10 the emergency admission rate for CHD, all persons, in Stockton-on-Tees was 255.9 per 100,000 (635 admissions). This is significantly higher than England (205.3 per 100,000) and lower than North East (259.5 per 100,000).

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

Source: Hospital Episode Statistics (HES), The NHS Information Centre for health and social care, ONS

CHD emergency admission rates (DSRs) for all ages, by quintile of relative deprivation, 2009/10

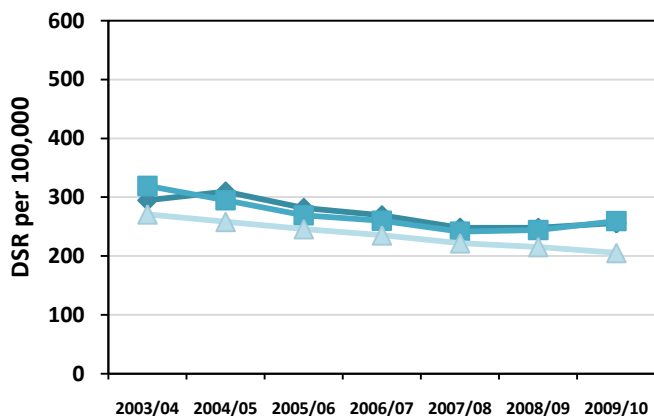


The emergency admission rate for CHD in 2009/10 for persons who live in the most deprived areas of Stockton-on-Tees was 342. This is 1.8 times greater than the emergency admission rates for persons who live in the least deprived areas of Stockton-on-Tees (186.9).

Source: HES, The NHS Information Centre for health and social care, ONS, Department of Communities and Local Government (DCLG)

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 North East.

Trend in CHD rates (DSRs), 2003/04 to 2009/10

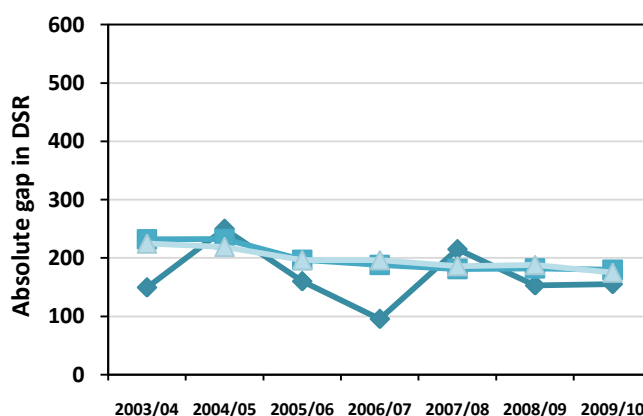


Source: HES, The NHS Information Centre for health and social care, ONS

The emergency admission rate for CHD in Stockton-on-Tees has decreased by 13.2% between 2003/04 and 2009/10.

In England it has decreased by 24.2% and in North East it has decreased by 18.7%.

Inequalities gap in rates (DSRs), 2003/04 to 2009/10



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

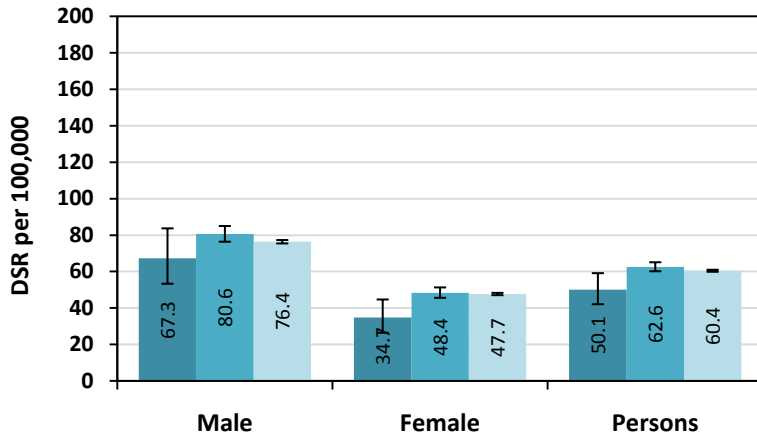
The absolute gap in CHD emergency admission rates between the most and least deprived areas in Stockton-on-Tees was 155.1 in 2009/10. This has increased from 149.4 since 2003/04.

In England the gap in the emergency admission rate has decreased by 22.2% and in North East it has decreased by 22.6%.

Heart failure emergency admission rates

■ Stockton-on-Tees ■ North East ■ England ◆ Stockton-on-Tees ◆ North East ▲ England

Heart failure emergency admission rates (DSRs), for all ages, 2009/10

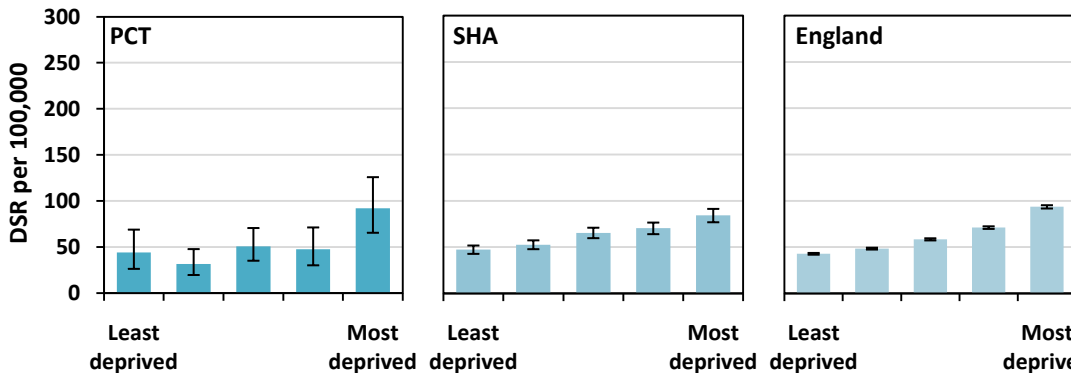


In 2009/10 the emergency admission rate for heart failure, all persons, in Stockton-on-Tees was 50.1 per 100,000 (149 admissions). This is significantly lower than England (60.4 per 100,000) and significantly lower than North East (62.6 per 100,000).

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

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

Heart failure emergency admission rates (DSRs) for all ages, by quintile of relative deprivation, 2009/10

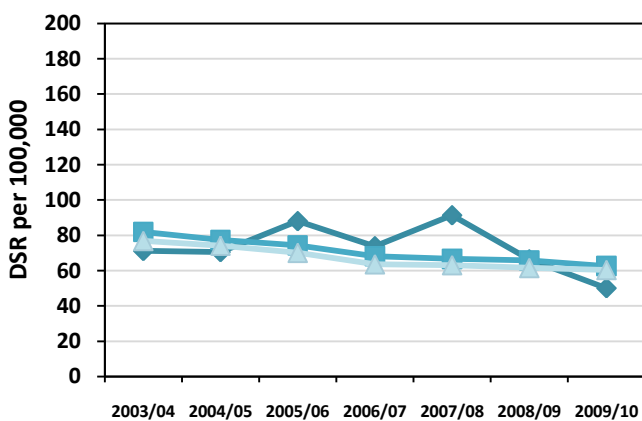


The emergency admission rate for heart failure in 2009/10 for persons who live in the most deprived areas of Stockton-on-Tees was 92.2. This was 2.1 times greater than the emergency admission rates for persons who live in the least deprived areas of Stockton-on-Tees (43.9).

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

In England, the emergency admission rates for persons who live in the most deprived areas are 2.2 times greater respectively compared to persons who live in the least deprived areas and 1.8 greater in North East.

Trend in heart failure rates (DSRs), 2003/04 to 2009/10

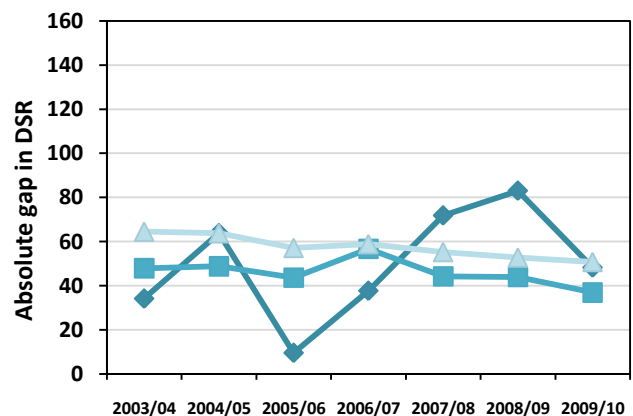


Source: HES, The NHS Information Centre for health and social care, ONS

The emergency admission rate for heart failure in Stockton-on-Tees has decreased by 29.6% between 2003/04 and 2009/10.

In England it has decreased by 21.4% and in North East it has decreased by 23.6%.

Inequalities gap in rates (DSRs), 2003/04 to 2009/10



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

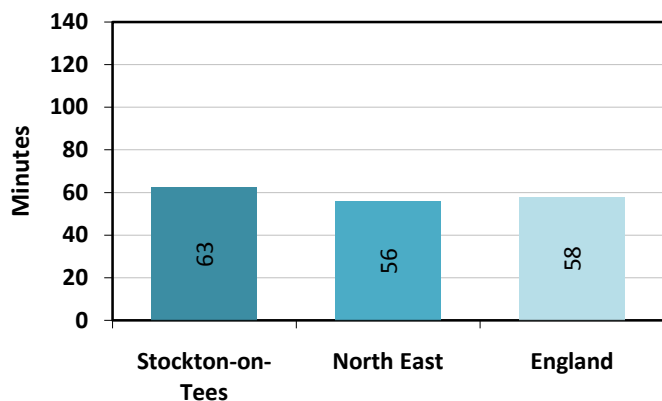
The absolute gap in heart failure emergency admission rates between the most and least deprived areas in Stockton-on-Tees was 48.2 in 2009/10. This has increased from 34.2 since 2003/04.

In England the gap in the emergency admission rates has decreased by 21.4% and in North East it has decreased by 23%.

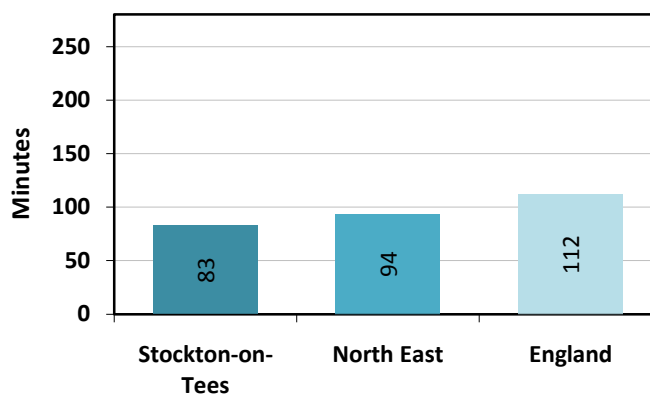
Myocardial Infarction management

Median call to reperfusion (thrombolysis or primary angioplasty) time for STEMI* cases, 2007-2009

Thrombolytic treatment time from calling for help



Primary Angioplasty treatment time from calling for help



Source: Myocardial Ischaemia National Audit Project (MINAP)

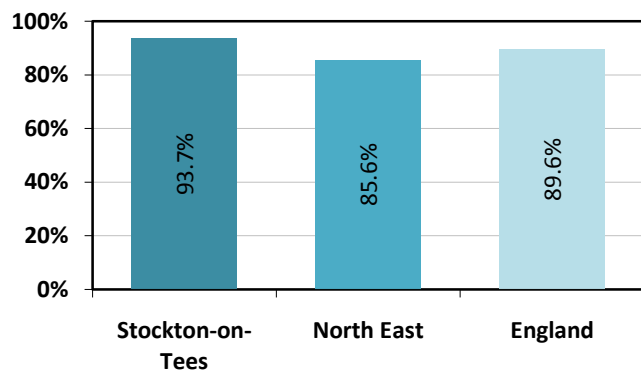
The median time to thrombolytic treatment (ambulance or hospital) from a call for help was 63 minutes in Stockton-on-Tees. This is higher than in North East and England (56 and 58 respectively).

The median time to primary angioplasty treatment from a call for help was 83 minutes in Stockton-on-Tees, this is lower than in North East and England (94 and 112 respectively).

Primary angioplasty in Stockton-on-Tees was 74.1% of all reperfusion for STEMI, compared to 40.6% in England.

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

Proportion of non-STEMIs seen by member of cardiology team, 2007-2009



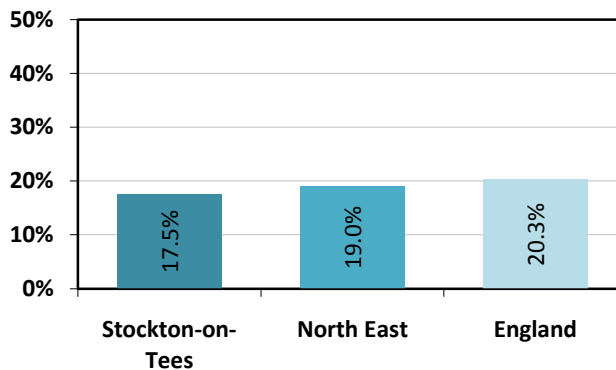
Source: MINAP

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 Stockton-on-Tees is 93.7%, this is higher than North East and England (85.6% and 89.6% respectively).

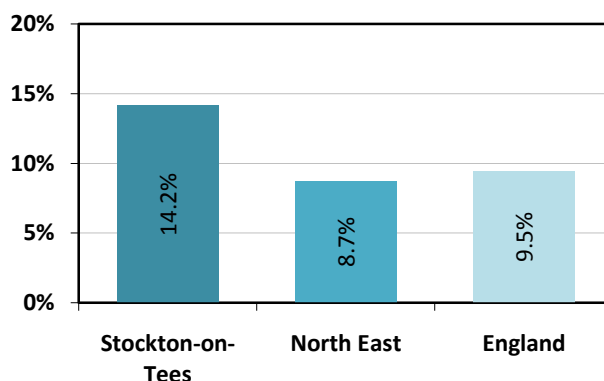
Diabetes is being increasingly seen in patients having a heart attack. The proportion of MINAP cases seen with diabetes in Stockton-on-Tees is 17.5%, this is lower than North East and England (19% and 20.3% respectively).

The 30 day mortality rate for STEMI is 14.2% in Stockton-on-Tees, this is higher than North East and England (8.7% and 9.5% respectively).

Proportion of all MINAP cases seen with diabetes, 2009



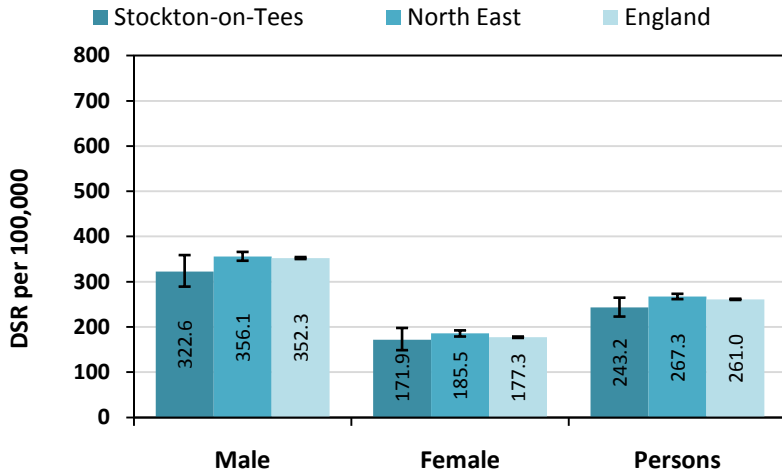
30 day mortality rate for STEMI cases, 2007-2009



Source: MINAP

Angiography procedures

Angiography procedure rates (DSRs) for all ages, 2009/10

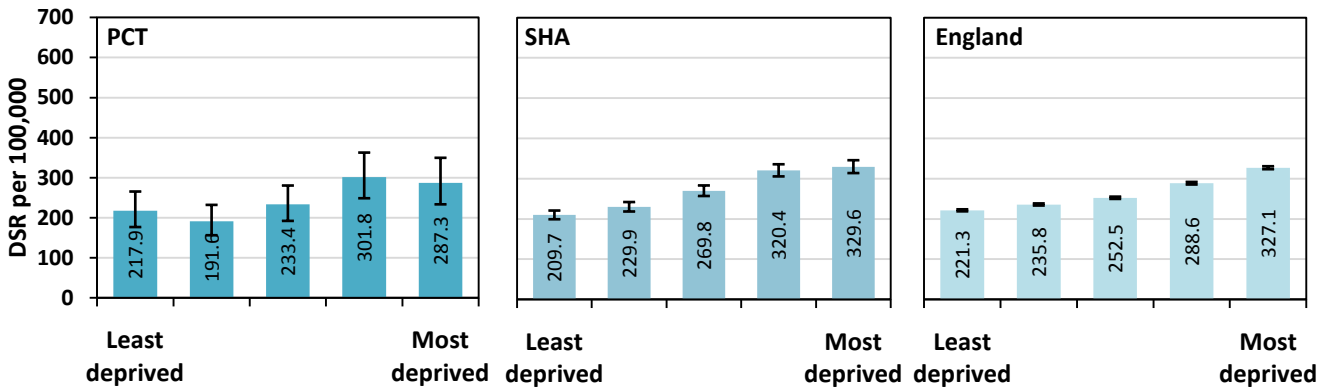


In 2009/10 the angiography rate, all persons, in Stockton-on-Tees was 243.2 per 100,000 (553 procedures). This is lower than England (261 per 100,000) and lower than North East (267.3 per 100,000).

Male angiography rates are 1.9 times greater than female angiography rates in Stockton-on-Tees.

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

Angiography procedure rates (DSRs) for all ages, by quintile of relative deprivation, 2009/10



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

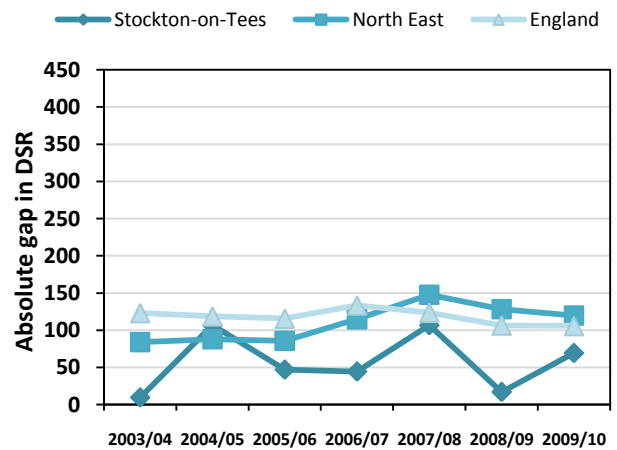
Angiography rates for persons who live in the most deprived areas of Stockton-on-Tees are 1.3 times greater than those who live in the least deprived areas. In England and North East they are 1.5 and 1.6 times greater respectively.

Trend in angiography rates (DSRs), 2003/04 to 2009/10



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

Inequalities gap in rates (DSRs), 2003/04 to 2009/10



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

Angiography rates in Stockton-on-Tees have increased by 11.3% between 2003/04 and 2009/10. In England and North East they have increased by 3.2% and increased by 12.6% respectively.

The gap in angiography rates between the least deprived and most deprived areas in Stockton-on-Tees was 69.5 in 2009/10. This has increased from 9.7% to 69.5% since 2003/04. In England the absolute gap in angiography rates has decreased by 14.1% and in North East it has increased by 42.7%.

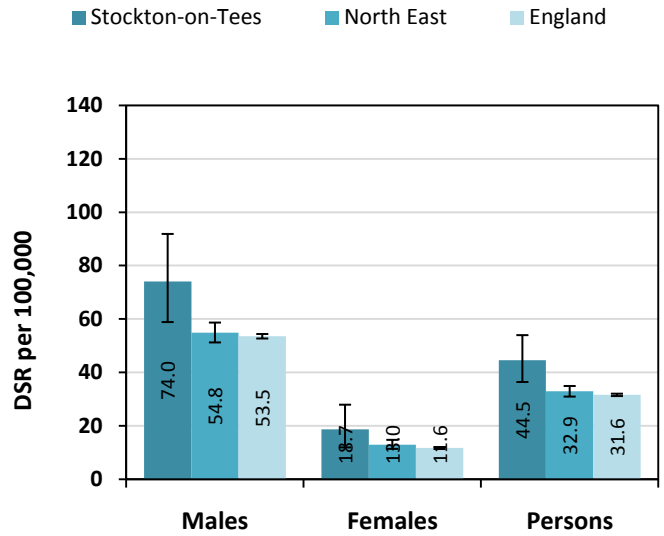
Revascularisation

Elective & non-elective angioplasty procedure rates (DSRs) for all ages, 2009/10



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

CABG procedure rates (DSRs), for all ages, 2009/10



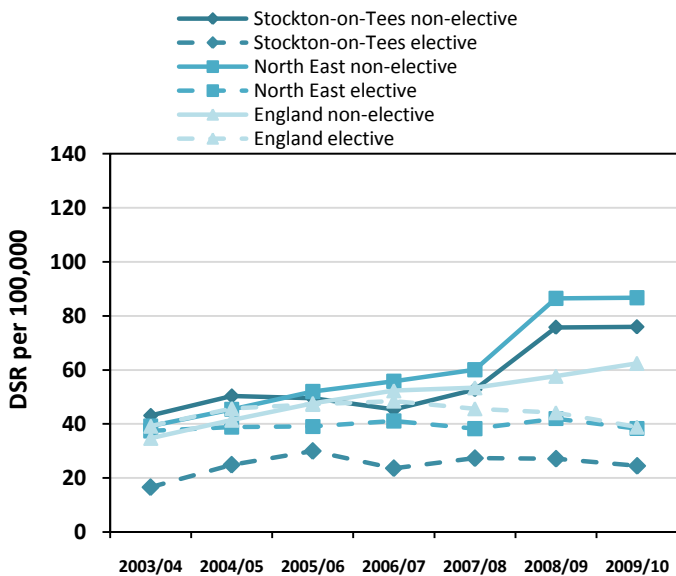
Source: HES, The NHS Information Centre for health and social care, ONS

In 2009/10 the angioplasty rate, all persons, in Stockton-on-Tees was 100.4 per 100,000 (231 procedures), 24.5 elective and 75.9 non-elective. This is lower than England (101.3 per 100,000) and significantly lower than North East (125.1 per 100,000).

Male angioplasty rates are 3.0 times greater than female angioplasty rates in Stockton-on-Tees.

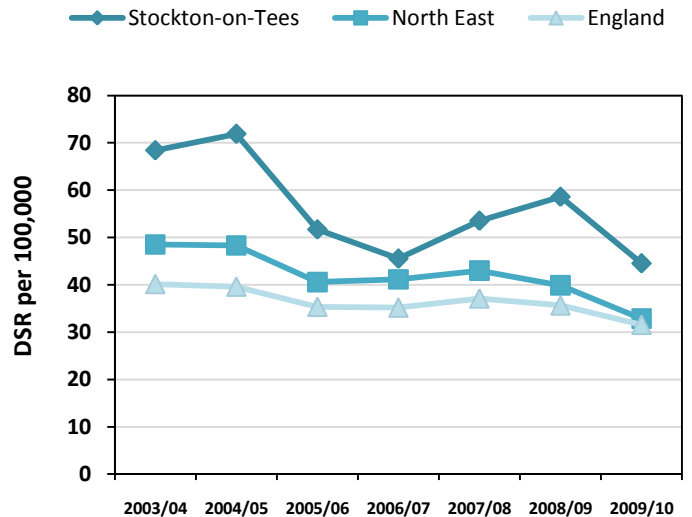
In 2009/10 the CABG rate, all persons, in Stockton-on-Tees was 44.5 per 100,000 (109 procedures). This is significantly higher than England (31.6 per 100,000) and significantly higher than North East (32.9 per 100,000).

Trend in Angioplasty rates (DSRs), 2003/04 to 2009/10



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

Trend in CABG rates (DSRs), 2003/04 to 2009/10

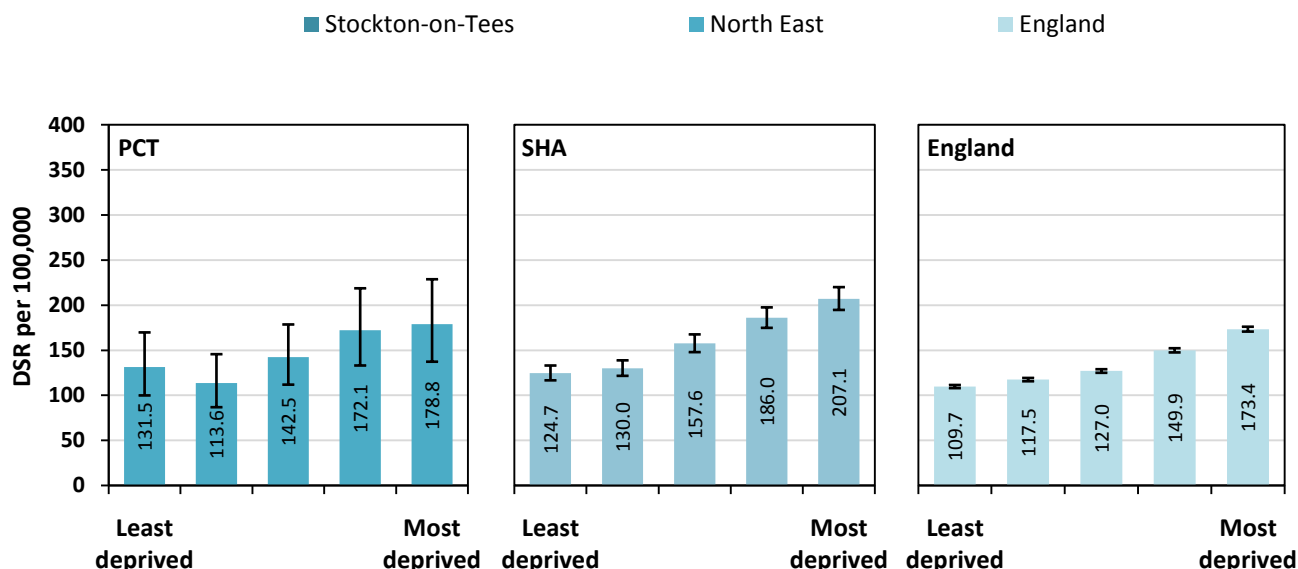


Non-elective angioplasty rates in Stockton-on-Tees have increased by 75.8% between 2003/04 and 2009/10. Elective procedure rates have increased by 47.8%. In England and North East non-elective procedure rates have increased by 79.7% and 121% respectively. Elective procedure rates have decreased by 0.9% and decreased by 2.4% respectively.

CABG procedure rates in Stockton-on-Tees have decreased by 34.9% between 2003/04 and 2009/10. In England and North East CABG procedure rates have decreased by 21.4% and 32.3% respectively.

Revascularisation - deprivation

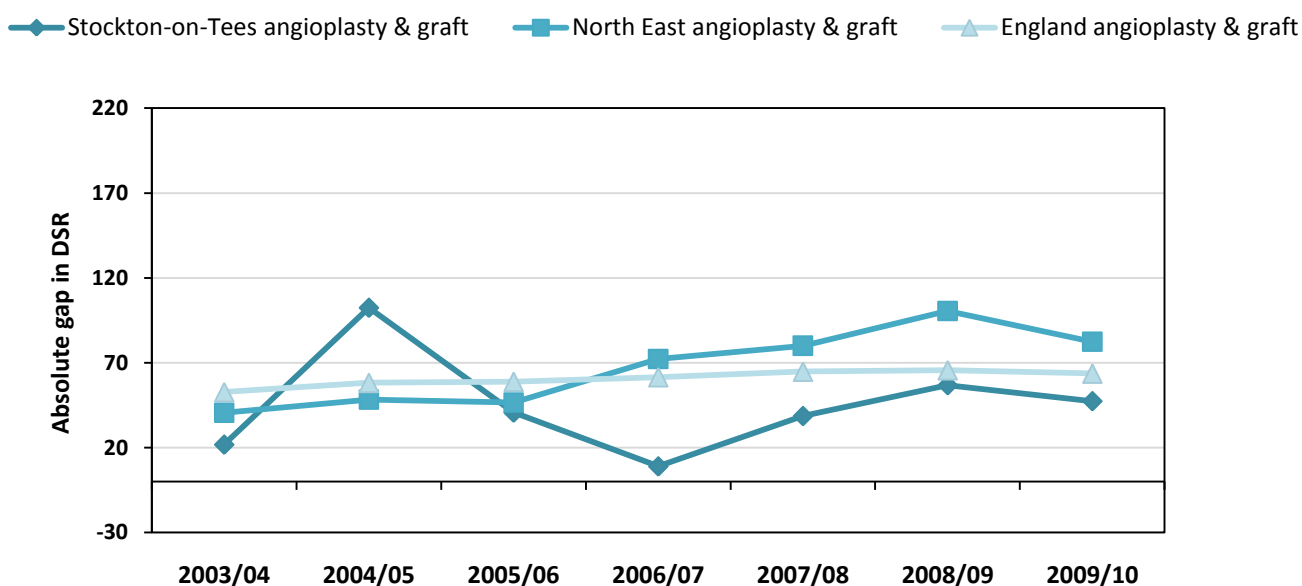
Revascularisation rates (DSRs) for all ages, by quintile of relative deprivation, 2009/10



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

Revascularisation rates for persons who live in the most deprived areas of Stockton-on-Tees are 1.4 times greater than those who live in the least deprived areas. In England and North East they are 1.6 and 1.7 times greater respectively.

Inequalities gap in rates (DSRs) for revascularisation, 2003/04 to 2009/10



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

The absolute gap in revascularisation rates between the least deprived and most deprived areas in 2009/10 was 47.4 in Stockton-on-Tees. This has increased by 117.4% since 2003/04. In England the absolute gap in revascularisation rates has increased by 20.8% and in North East it has increased by 103.6%. The relative gap between the least and most deprived areas in Stockton-on-Tees for 2009/10 was 26.5%.

Secondary management of CHD and Heart Failure outcomes

Percentage uptake of cardiac rehabilitation for patients discharged alive after MI, by SHA, 2008/09

Strategic Health Authority	Number of programmes	Provided MI numbers (%)	Estimated (%)	Number of cases	Number receiving Cardiac Rehabilitation	Uptake (%)*
North East	20	65%	35%	4672	2356	50.4%
North West	39	87%	13%	11501	5568	48.4%
Yorkshire and the Humber	30	80%	20%	8634	3890	45.1%
South East Coast	21	95%	5%	5998	2497	41.6%
East of England	28	93%	7%	8325	3294	39.6%
South West	32	94%	6%	7771	3011	38.7%
West Midlands	26	92%	8%	7451	2792	37.5%
East Midlands	21	95%	5%	7956	2884	36.2%
South Central	14	100%	0%	5452	1611	29.5%
London	33	91%	9%	8352	2225	26.6%
Total	264	89%	11%	76112	30128	39.6%

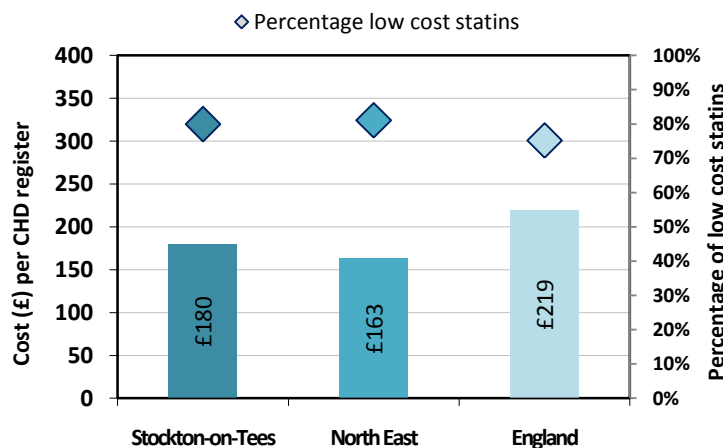
*Important note, % uptake is likely to be slightly underestimated for all SHAs due to missing data
Source: The National Audit of Cardiac Rehabilitation, 2010

The cardiac rehabilitation uptake data is only available at SHA level. 2356 out of 4672 North East patients were provided with cardiac rehabilitation achieving an uptake of 50.4% which is higher than the national average (39.6%).

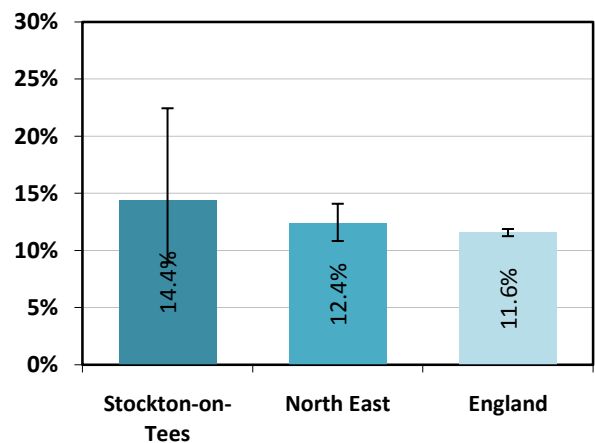
As a rate per person with CHD (from QOF register), Stockton-on-Tees spent £180 on statins in 2009/10, which is higher than North East (£163) but lower than England (£219). The level of low cost statin prescribing in 2009/10 for Stockton-on-Tees was 79.9% which is lower than North East (81.1%) but higher than England (75.2%).

14.4% of deaths from heart failure occurred in the home in Stockton-on-Tees which is a higher proportion than North East (12.4%) and England (11.6%)

Cost of statins per patient with CHD and percentage of statins that are low cost, 2009/10



Proportion of deaths from heart failure that occur at home, 2005-2009



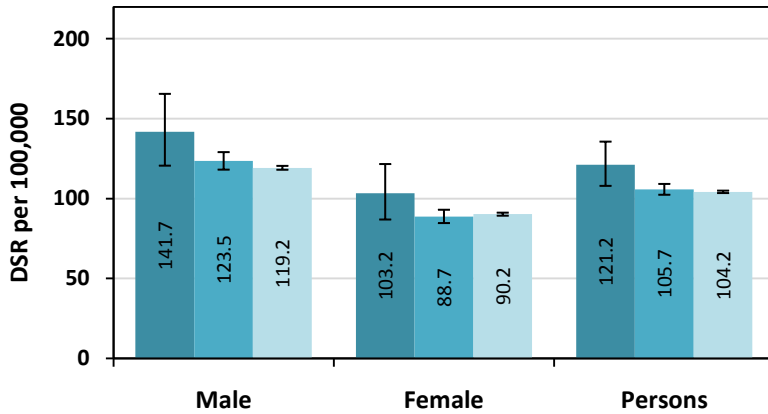
Source: The NHS Information Centre for health & social care, The Prescription Pricing Authority

Source: PHO annual deaths extract, ONS

Stroke emergency admission rates

■ Stockton-on-Tees ■ North East ■ England — Stockton-on-Tees — North East — England

Stroke emergency admission rates (DSRs) for all ages, 2009/10

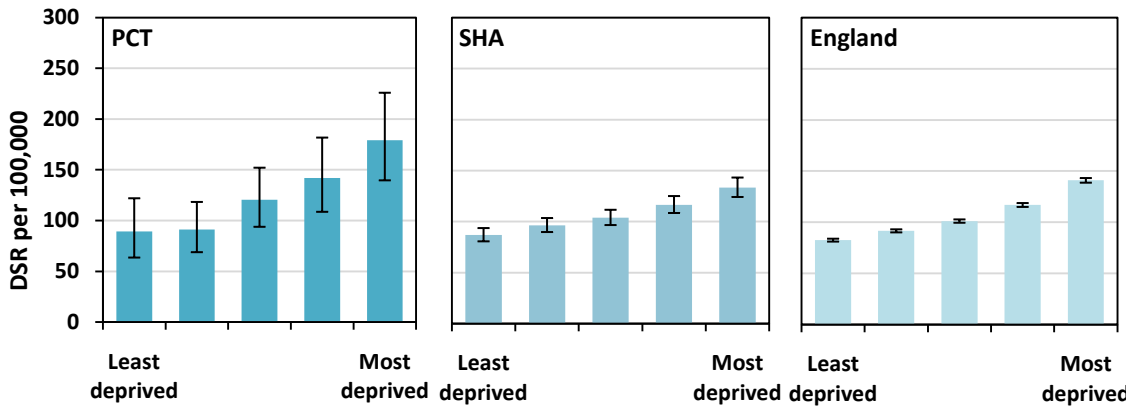


In 2009/10 the emergency admission rate for stroke, all persons, in Stockton-on-Tees was 121.2 per 100,000 (324 admissions). This is significantly higher than England (104.2 per 100,000) and higher than North East (105.7 per 100,000).

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

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

Stroke emergency admission rates (DSRs), by quintile of relative deprivation, 2009/10

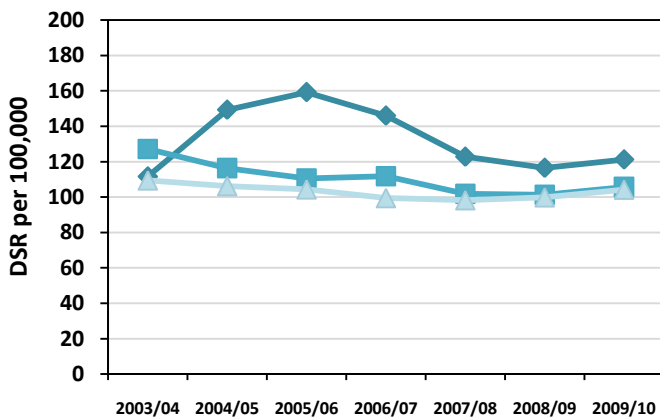


The emergency admission rate for stroke in 2009/10 for persons who live in the most deprived areas of Stockton-on-Tees was 179.1. This is 2 times greater than the emergency admission rates for persons who live in the least deprived areas of Stockton-on-Tees (89.4).

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

In England, the emergency rates for persons who live in the most deprived areas are 1.7 times greater respectively compared to persons who live in the least deprived areas and 1.5 greater in North East.

Trend in stroke rates (DSRs), 2003/04 to 2009/10



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

The emergency admission rate for stroke in Stockton-on-Tees has increased by 8.6% between 2003/04 and 2009/10.

In England it has decreased by 4.8% and in North East it has decreased by 16.8%.

Inequalities gap in rates (DSRs), 2003/04 to 2009/10



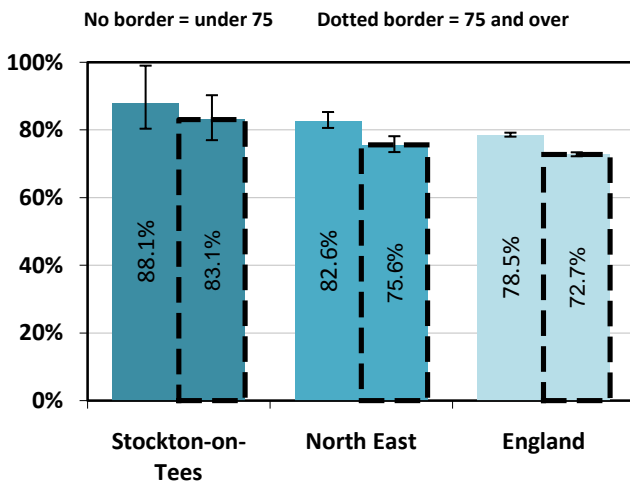
Source: HES, The NHS Information Centre for health and social care, ONS, DCLG

The absolute gap in stroke emergency admission rates between the most and least deprived areas in Stockton-on-Tees was 89.7 in 2009/10. This has increased from 49.3 since 2003/04.

In England the gap in the emergency admission rates has decreased by 45.2% and in North East it has decreased by 11.3%.

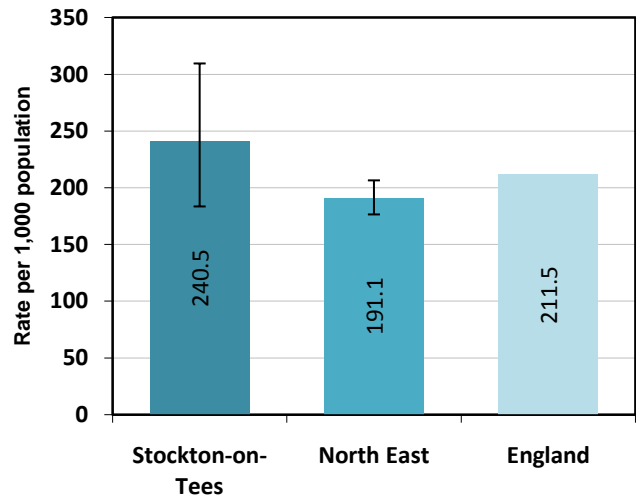
Stroke management

Percentage of hospital stroke patients discharged to home or usual place of residence, 2009/10



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

Stroke case fatality (within 30 days of admission) indirectly age and sex standardised rates, 2008/09



Source: NCHOD

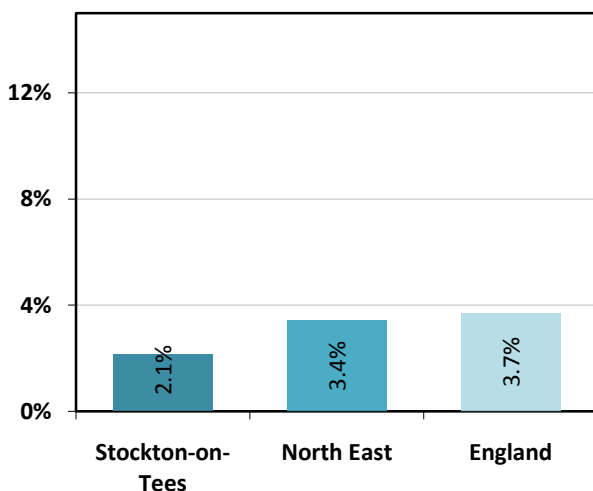
The proportion of patients under the age of 75 discharged to home or usual place of residence in Stockton-on-Tees is 88.1%, which is higher than North East (82.6%) and significantly higher than England (78.5%). 83.1% of patients aged 75 or over are discharged to home, which is higher than North East (75.6%) and England (72.7%).

The 30 day stroke case fatality rate for Stockton-on-Tees is 240.5, which is higher than England (211.5). North East is significantly lower than England.

The rate of re-admissions within 30 days for Stockton-on-Tees is 2.1%, this is lower than England and North East (3.4% and 3.7% respectively).

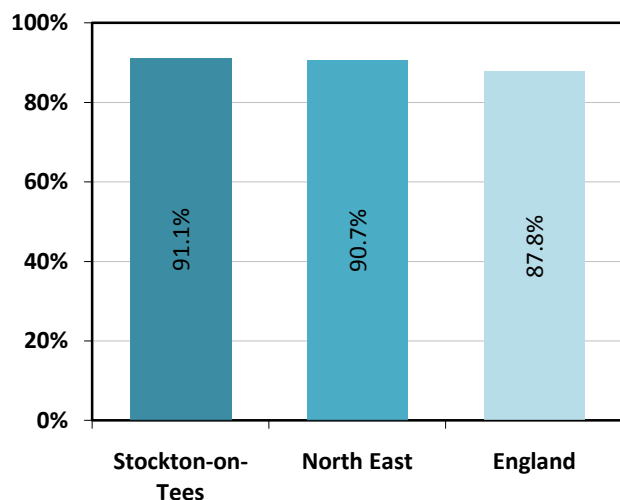
The Proportion of CT/MRI scans performed within 24 hours for stroke patients is 91.1% in Stockton-on-Tees, this is higher than North East and England (90.7% and 87.8% respectively).

Emergency readmission rates for patients with stroke, 2009/10



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

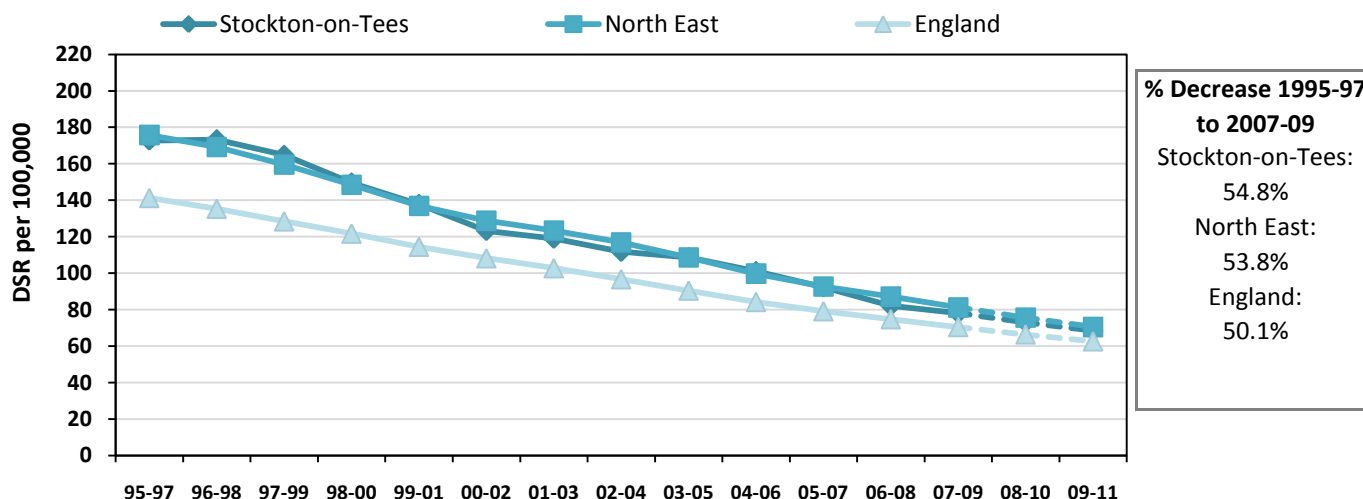
Proportion of CT/MRI scans performed within 24 hours for stroke patients, 2009/10



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

CVD mortality rates target

All CVD mortality rates (DSRs) in persons under 75 yrs: 1995-97 to 2009-11



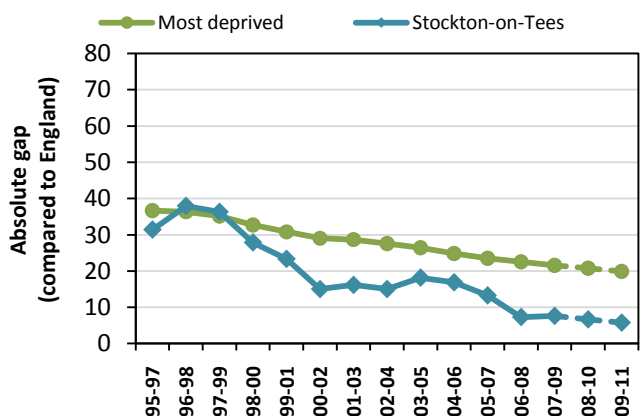
Source: NCHOD, PHO annual deaths extract, ONS

In 2007-09 the all CVD mortality rate in Stockton-on-Tees for persons under 75 yrs was 78.1, a decrease of 54.8% from 1995-97. 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. This target has already been met in England and in the North East region and has been met in Stockton-on-Tees. The target ended in June 2010.

The forecast decrease in the mortality rate (dotted line) for CVD in Stockton-on-Tees by 2009-11 is 60.4%. For England, the forecast decrease is 55.7% and for North East it is 59.9%.

CVD inequalities

Absolute gap in CVD mortality rates (DSRs) compared to England, 1995-97 to 2009-11



Source: PHO annual deaths extract, ONS

A national target was set in 2004 to narrow the gap in health outcomes between areas with the worst health and deprivation indicators and the rest of the country. 62 PCTs fell into this most deprived group and Stockton-on-Tees was one of them.

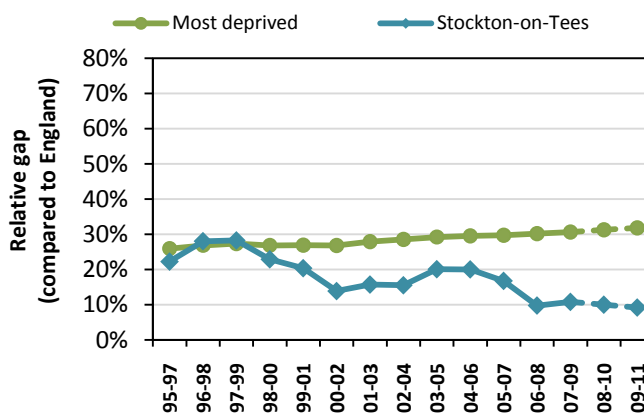
The gap between the most deprived areas in England and the England rate has decreased over time.

In 2007-09, the mortality in Stockton-on-Tees PCT was higher (worse) than England, and the absolute gap was 7.6 per 100,000.

Although the absolute gap has decreased, the overall downward trend in mortality means that deprived areas still have a higher mortality than the more affluent areas. In 1995-7, the mortality in the most deprived areas was 26% higher than the national rate, and in 2007-09, it was 30.6% higher.

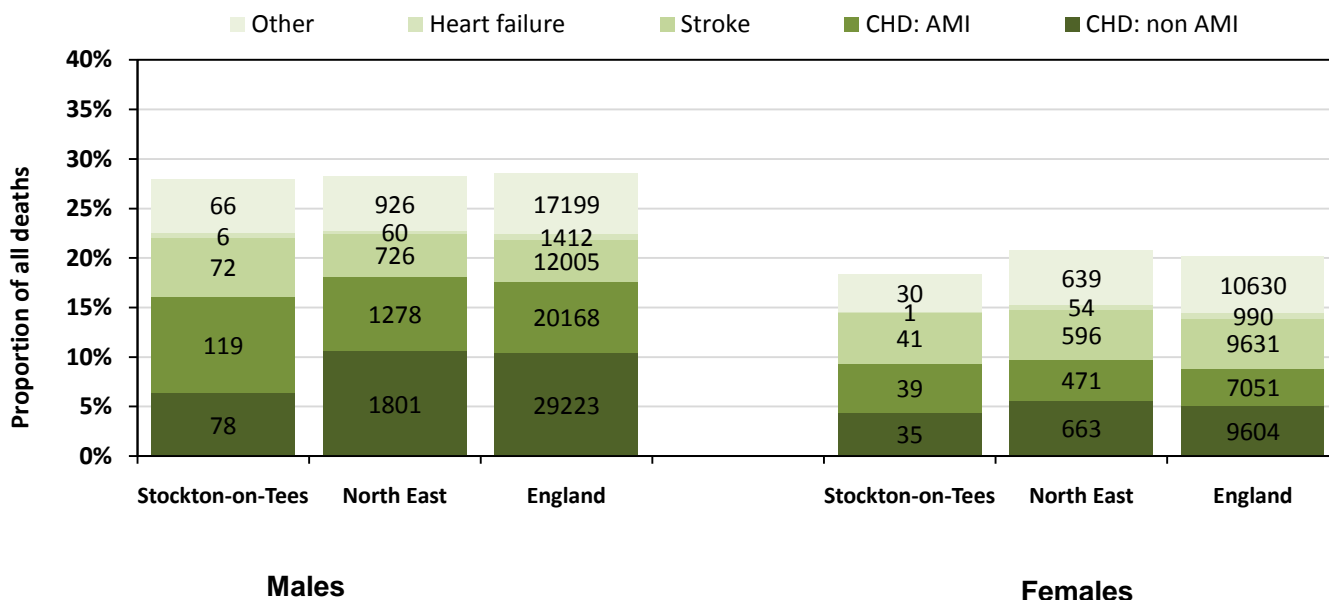
The graphs above also show a forecast for 2010-11 (dotted line), suggesting a continued reduction in the absolute gap, and further increases in the relative gap.

Relative gap in CVD mortality rates (DSRs) compared to England, 1995-97 to 2009-11



Contribution of early CVD deaths to overall mortality

CVD deaths by gender for under 75 yrs as a proportion of all deaths under 75 yrs, 2007-09



Source: PHO annual deaths extract, ONS

In Stockton-on-Tees the percentage of CVD deaths under 75 yrs as a proportion of all deaths under 75 yrs was 27.9% for males and 18.4% for females. This is lower than England for males (28.5%) and significantly lower than England for females (20.1%).

CHD makes up the biggest proportion of deaths within CVD for both males and females, 16.1% (9.7% AMI and 6.4% non AMI) and 9.3% (4.9% AMI and 4.4% non AMI) respectively in Stockton-on-Tees. For males, 5.9% of deaths are due to stroke and 0.5% are due to heart failure. For females, 5.2% of deaths are due to stroke and 0.1% are due to heart failure.

CVD early mortality rates

CVD mortality rate (DSR) by gender for under 75 yrs, 2007-09



Source: PHO annual deaths extract, ONS

The 2007-09 CVD mortality rate in Stockton-on-Tees for persons under 75 yrs was 78 per 100,000. This is significantly higher than England (70.4) and lower than North East (81.1).

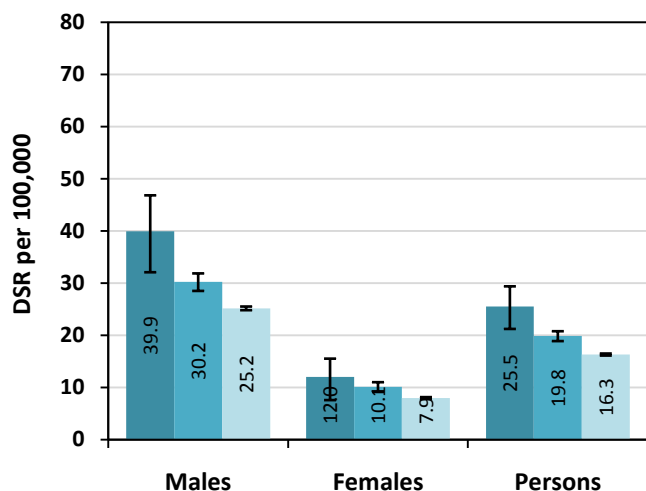
Male CVD mortality rates in Stockton-on-Tees are significantly higher than female CVD mortality rates (113.7 and 44.8 respectively).

Trends in early mortality rates

■ Stockton-on-Tees ■ North East ■ England

◆ Males Stockton-on-Tees ◆ Females Stockton-on-Tees
 ■ Males North East ■ Females North East
 ◆ Males England ◆ Females England

Mortality rates (DSRs) for AMI for under 75yrs, 2007-09

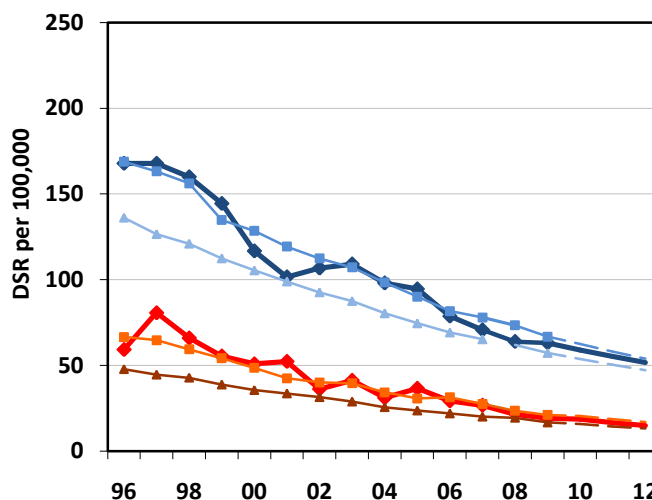


Source: PHO annual deaths extract, ONS

The 2007-09 acute myocardial infarction (AMI) mortality rate for persons under 75 yrs in Stockton-on-Tees was 25.5 per 100,000. This is significantly higher than in England (16.3%) and significantly higher than in North East (19.8%). In Stockton-on-Tees, male AMI mortality rates are significantly higher than female AMI mortality rates.

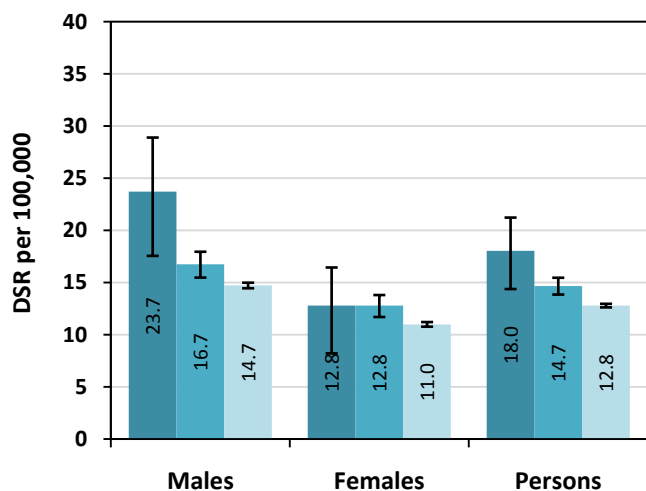
The forecast decrease in the mortality rate for CHD between 1996 and 2012 for Stockton-on-Tees is 69.2% for males and 75.0% for females. For England, the forecast decrease is 65.3% and 72.4% for males and females and for North East it is 68.1% and 74.4% respectively.

Trend in CHD mortality rates, under 75yrs, 1996-2012



Source: NCHOD, PHO annual deaths extract, ONS

Mortality rates (DSRs) for stroke, under 75yrs, 2007-09

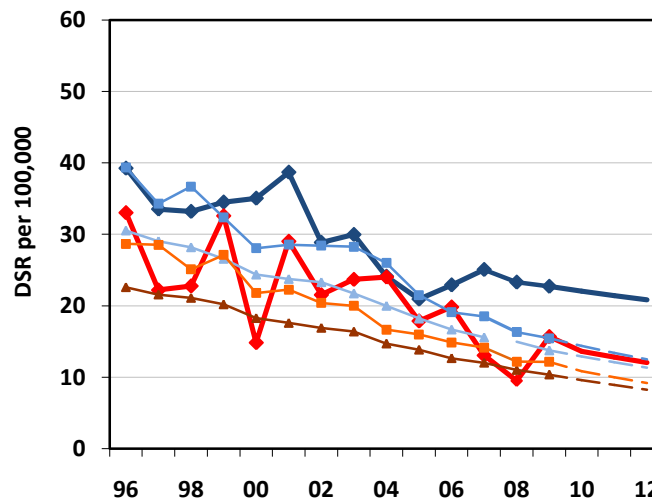


Source: PHO annual deaths extract, ONS

The 2007-09 stroke mortality rate for persons under 75 yrs in Stockton-on-Tees was 18.0 per 100,000. This is significantly higher than England (12.8) and higher than North East (14.7). Male stroke mortality rates are significantly higher than female stroke mortality rates in Stockton-on-Tees.

The forecast decrease in the mortality rate for stroke between 1996 and 2012 for Stockton-on-Tees is 47.0% for males and 63.5% for females. For England, the forecast decrease is 62.8% and 63.5% for males and females and for North East it is 68.2% and 68% respectively.

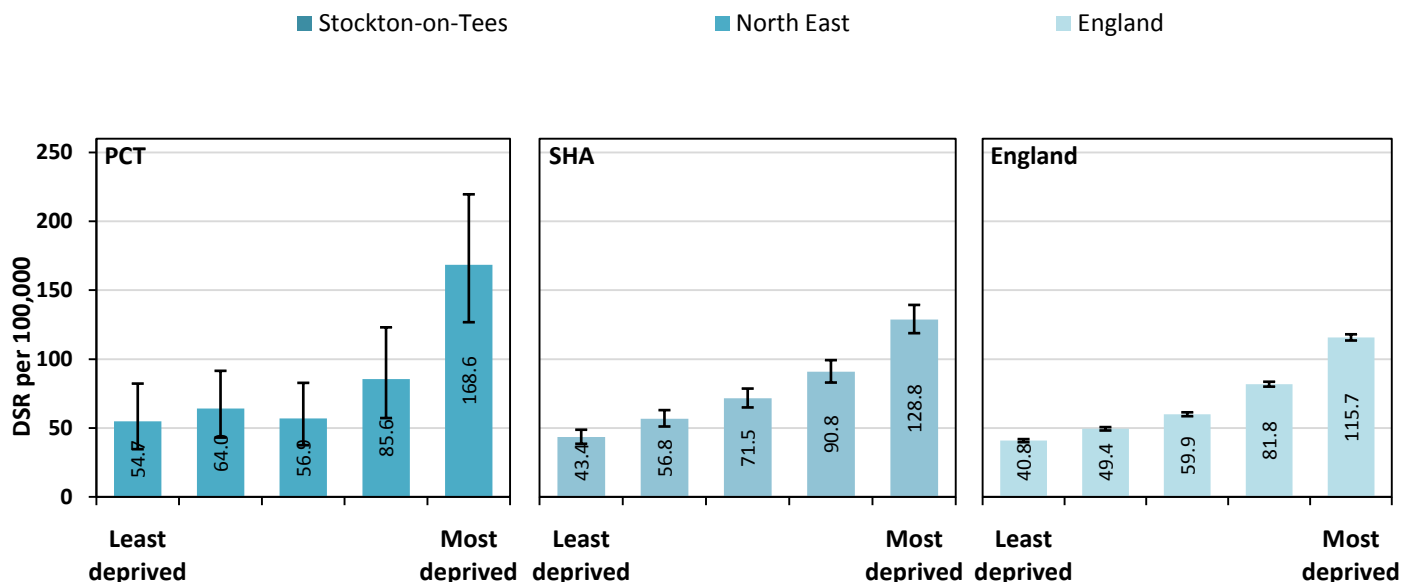
Trend in stroke mortality rates, under 75yrs, 1996-2012



Source: NCHOD, PHO annual deaths extract, ONS

CVD mortality rates by quintile of relative deprivation

All CVD mortality rates (DSRs) for persons under 75 yrs, by quintile of relative deprivation, 2009

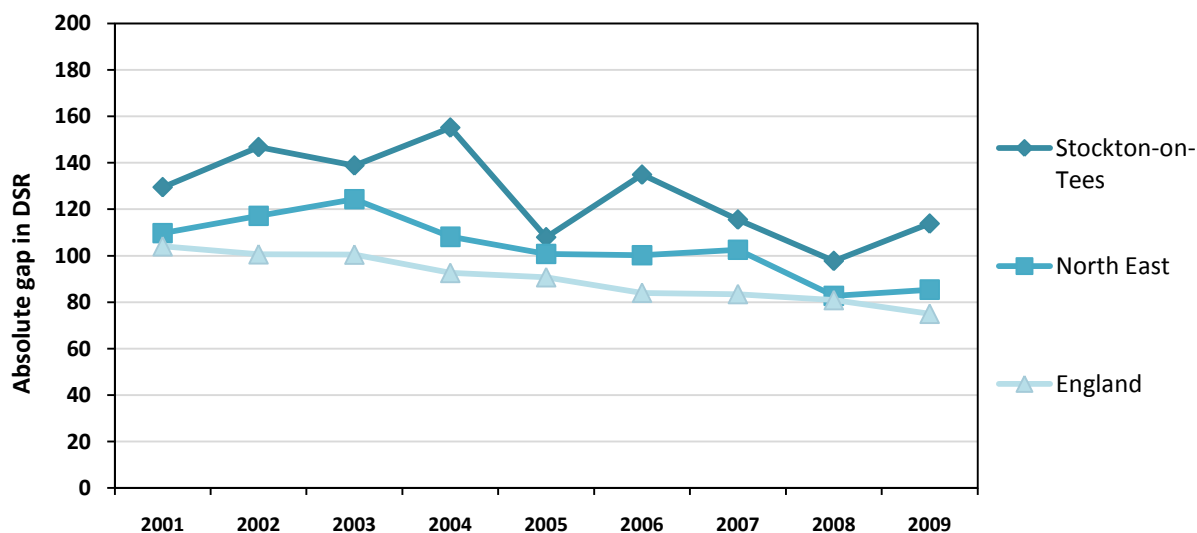


Source: PHO annual deaths extract, ONS, DCLG

The mortality rate in 2009 for persons who live in the most deprived areas of Stockton-on-Tees was 168.6 per 100,000. This is 2.2 times greater than the overall mortality rate for Stockton-on-Tees and 3.1 times greater than the mortality rate for persons who live in the least deprived areas of Stockton-on-Tees.

In England the mortality rate for persons who live in the most deprived areas was 115.7, 1.6 times greater than overall and 2.8 times greater than in the least deprived areas. In North East the mortality rate for persons who live in the most deprived areas was 128.8, 1.6 times greater than overall and 3 times greater than in the least deprived areas.

Absolute gap in CVD mortality rates (DSRs) for persons under 75 yrs between the most and least deprived quintile, 2001-09

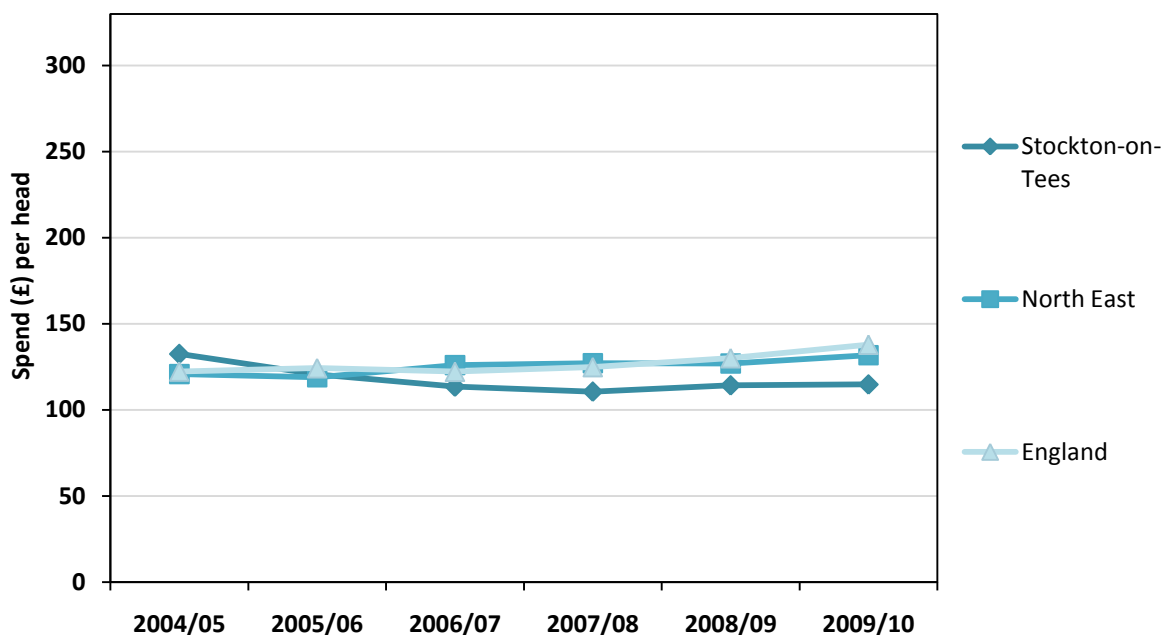


Source: PHO annual deaths extract, ONS, DCLG

The absolute gap in mortality rates between the most and least deprived areas in 2009 was 113.8 in Stockton-on-Tees, 75.0 in England and 85.4 in North East. Since 2001 this has decreased by 12.1% in Stockton-on-Tees, has decreased by 27.9% in England and has decreased by 22.2% in North East.

Programme budgeting expenditure

CVD expenditure per head of weighted* population, 2004/05 to 2009/10



Source: Department of Health, 2009-10 programme budgeting benchmarking tool

* Weighted population is the Department of Health unified weighted population for PCTs

The expenditure per head for all circulatory diseases in Stockton-on-Tees was £114.78 in 2009/10, £23.20 less than in England and £17.00 less than in North East. There has been an increase in expenditure per head in England and an increase in expenditure per head in North East between 2004/05 and 2009/10.

CHD expenditure per head of weighted population, 2008/09 & 2009/10

Cerebrovascular disease expenditure per head of weighted population, 2008/09 & 2009/10



Source: Department of Health, 2009-10 programme budgeting benchmarking tool

The expenditure per head for CHD in Stockton-on-Tees in 2009/10 was £35.06, £6.03 lower than England and £5.32 lower than North East.

The expenditure per head for cerebrovascular disease in Stockton-on-Tees in 2009/10 was £14.12, £7.42 lower than England and £3.96 lower than North East.

This report has been compiled by

- Kevin Watson
- Andrew Hughes
- Max Kammerling

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