Stroke & CVD

Introduction

Stroke is a serious potentially life threatening condition that occurs when part of the blood supply to the brain is interrupted. Urgent treatment is required as it is a medical emergency.
There are two main causes of stroke:

Ischaemic – where the blood supply is stopped due to a blood clot

Haemorrhagic – where a weak blood vessel in the brain bursts

There is a related condition called a Transient Ischaemic Attack (TIA) which occurs when the blood supply is temporarily interrupted. This can last up to 24 hours and should also be treated as an emergency as it could lead to a full stroke.

Strokes can be prevented by:

Eating a healthy diet

Exercising regularly

Following the recommended alcohol consumption guidelines

Not smoking

Medical conditions that increase your risk of stroke include:

High blood pressure

Diabetes

Atrial Fibrillation

High cholesterol

There are clear health inequalities associated with stroke with those people in lower socioeconomic groups at a higher risk of having a stroke.

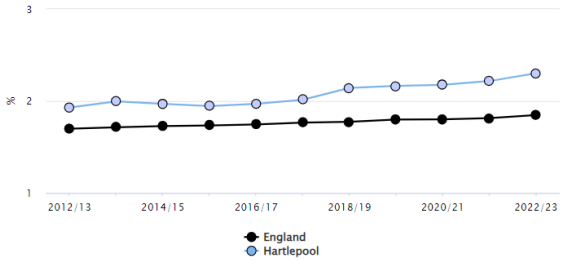
Stroke is one of the biggest causes of death in the UK and is a significant cause of disability.

Main Issues

Hartlepool's stroke prevalence, as captured by the Quality Outcomes Framework (QOF), has remained largely stable between 2012/13 and 2022/23, moving no more than 0.1 percentage points in any single year. This pattern is replicated in bothe the England and north east rates. Throughout this period Hartlepool has remained statistically above the national average. The gap between Hartlepool and England in the 2022/23 data is the largest in the entire reporting period.

Stroke: QOF prevalence (all ages)

Proportion - %



Recent trend: ➡ No significant change

Period		Hartlepool Count	Value	95% Lower CI	95% Upper CI	North East	England
2012/13		1,843	1.9%	1.8%	2.0%	2.1%*	1.7%
2013/14		1,909	2.0%	1.9%	2.1%	2.2%	1.7%
2014/15		1,884	2.0%	1.9%	2.1%	2.2%	1.7%
2015/16		1,867	1.9%	1.9%	2.0%	2.2%	1.7%
2016/17		1,893	2.0%	1.9%	2.1%	2.2%	1.7%
2017/18		1,941	2.0%	1.9%	2.1%	2.2%	1.8%
2018/19		2,075	2.1%	2.1%	2.2%	2.3%	1.8%*
2019/20		2,095	2.2%	2.1%	2.3%	2.3%	1.8%
2020/21		2,107	2.2%	2.1%	2.3%	2.3%*	1.8%
2021/22		2,156	2.2%	2.1%	2.3%	2.3%*	1.8%
2022/23		2,253	2.3%	2.2%	2.4%	2.4%*	1.8%

Source: Quality and Outcomes Framework (QOF), NHS England

Hartlepool's rate for both emergency hospital admissions and for deaths from stroke from 2015/17-20/21 was statistically higher than the England average. Hartlepool was the highest in the north east and the 5th highest in England for emergency hospital admissions. Hartlepool's emergency hospital admissions figure of 133.6 SAR, is over a third larger than the England average. For deaths from stroke, Hartlepool's rate of 114.5 SAR was the 6th lowest in the north east, but was inside the top 20 highest rates in England.

Emergency hospital admissions for stroke, standardised admission ratio

Indirectly standardised ratio - per 100

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	–	-	100.0	99.7	100.3
North East region	–	-	-	-	-
Hartlepool	–	-	133.6	125.3	142.2
North Tyneside	–	-	129.6	124.2	135.1
Middlesbrough	–	-	127.3	120.2	134.6
Stockton-on-Tees	–	-	125.9	120.2	131.7
Gateshead	–	-	125.6	120.2	131.2
Newcastle upon Tyne	–	-	122.8	117.9	128.0
Northumberland	–	-	121.8	117.9	125.8
County Durham	–	-	113.6	110.4	116.8
Darlington	–	-	108.3	101.5	115.3
Sunderland	–	-	108.1	103.8	112.6
Redcar and Cleveland	–	-	107.2	101.4	113.2
South Tyneside	–	-	99.4	93.9	105.1

Recent trend: Could not be calculated

	Hartlepool						
Period		Count	Value	95% Lower CI	95% Upper CI	North East	England
2016/17 - 20/21	●	-	133.6	125.3	142.2	-	100.0

Source: OHID, based on NHS England and Office for National Statistics data

Deaths from stroke, all ages, standardised mortality ratio

Indirectly standardised ratio - per 100

Area	Recent Trend	Count	Value	95% Lower CI	95% Upper CI
England	–	142,374	100.0	99.5	100.5
North East region	–	-	-	-	-
Middlesbrough	–	403	131.7	119.2	145.2
Sunderland	–	839	122.5	114.4	131.1
County Durham	–	1,675	120.9	115.2	126.8
South Tyneside	–	487	118.2	107.9	129.2
Gateshead	–	633	116.8	107.9	126.3
Redcar and Cleveland	–	462	114.8	104.6	125.8
Hartlepool	–	280	114.5	101.5	128.7
Newcastle upon Tyne	–	719	114.5	106.2	123.1
Northumberland	–	1,164	114.4	107.9	121.2
North Tyneside	–	640	114.0	105.3	123.1
Stockton-on-Tees	–	526	110.2	101.0	120.0
Darlington	–	330	109.7	98.2	122.2

Recent trend: Could not be calculated

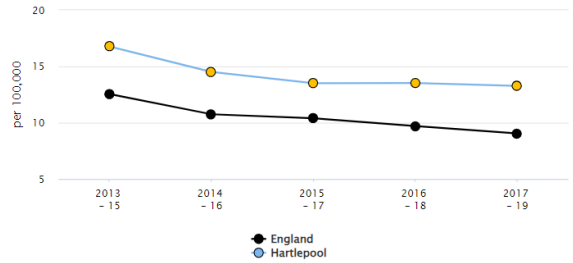
	Hartlepool						
Period		Count	Value	95% Lower CI	95% Upper CI	North East	England
2016/17 - 20/21	●	-	133.6	125.3	142.2	-	100.0

Source: OHID, based on NHS England and Office for National Statistics data

Where the death from stroke was attributable to smoking, Hartlepool's rate has fallen from 16.8 per 100,000 in 2013/15 to 13.3 per 100,000 in 2017/18, a decline of 20.8%. This reduction has been mirrored by the England rate, which fell by 28% in the same period, and followed a similar pattern. Hartlepool has remained statistically similar to the England rate across the reporting period.

Smoking attributable deaths from stroke (new method)

Directly standardised rate - per 100,000



Recent trend: Could not be calculated

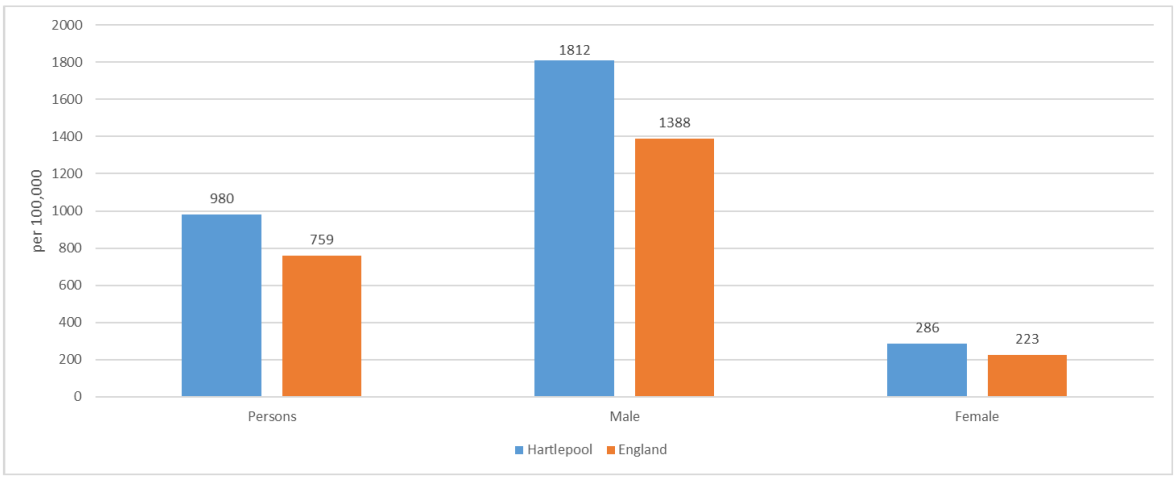
Period		Hartlepool Count	Value	95% Lower CI	95% Upper CI	North East	England
2013 - 15		25	16.8	10.8	24.8	14.5	12.5
2014 - 16		23	14.5	9.1	21.9	12.6	10.7
2015 - 17		21	13.5	8.4	20.6	12.6	10.4
2016 - 18		22	13.5	8.4	20.6	12.2	9.7
2017 - 19		22	13.3	8.2	20.2	11.5	9.0

Source: Mortality data from the ONS mortality file; ONS mid-year population estimates; Smoking prevalence data from Annual Population Survey; and relative risks from the Royal College of Physician's Report 'Hiding in Plain Sight'.

Hospital admissions for alcohol related cardiovascular disease in 2021/22, in both Hartlepool and England as a whole, is driven by male admissions. The admissions rate for males is more than 6x the size of the female rate in both geographies. Hartlepool's rate for person, males and females are each the largest rate in the north east, and in the whole of England they are the 9th, 6th and 18th highest respectively.

Admission episodes for alcohol-related cardiovascular disease (Broad) 2021/22

Directly standardised rate - per 100,000



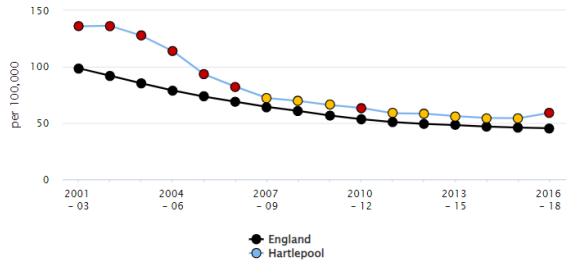
Source: OHID using NHS England Hospital Episode Statistics (HES) and Office for National Statistics (ONS) mid year population estimates.

Hartlepool's rate of mortality from cardiovascular disease considered preventable fell for 13 consecutive years, from 136.3 per 100,000 in 2002/04 to 54.3 per 100,000 in 2015/17. This is a decline of 60.2%. Across the same time period the England rate fell by 49.9%. Across those 13 yesr, Hartlepool had moved from a position of statistically worse than the England average, to, in 2007/09, a position of statistical similarity, which Hartlepool held for seven of the next eight years. However, the latest data has seen Hartlepool's rate increase, and move back to a position of statistically worse than England. Hartlepool's 2016/18 rate of 59 per 100,000 is an

increase of 8.6% on the previous year, a move which is not replicated in the England data, which continued to reduce.

Under 75 mortality rate from cardiovascular diseases considered preventable (2016 definition)

Directly standardised rate - per 100,000



Recent trend: Could not be calculated

Period		Hartlepool Count	Value	95% Lower CI	95% Upper CI	North East	England
2001 - 03		294	135.9	120.8	152.3	120.1	98.6
2002 - 04		299	136.3	121.3	152.7	112.9	91.9
2003 - 05		281	127.6	113.1	143.4	105.1	85.3
2004 - 06		252	113.8	100.2	128.8	96.3	78.9
2005 - 07		206	93.2	80.9	106.8	89.0	73.4
2006 - 08		184	82.2	70.7	95.0	82.6	68.9
2007 - 09		163	72.1	61.5	84.1	75.5	64.3
2008 - 10		159	69.6	59.2	81.3	69.5	60.7
2009 - 11		152	66.0	55.9	77.4	64.9	56.6
2010 - 12		146	63.4	53.5	74.6	61.4	53.5
2011 - 13		136	58.6	49.1	69.4	57.7	50.9
2012 - 14		138	58.3	49.0	69.0	55.4	49.2
2013 - 15		134	56.0	46.9	66.4	54.5	48.1
2014 - 16		132	54.5	45.5	64.7	54.7	46.7
2015 - 17		134	54.3	45.5	64.4	53.2	45.9
2016 - 18		148	59.0	49.8	69.3	53.2	45.3

Source: Public Health England (based on ONS source data)

Current services

Prevention, early detection and treatment of CVD can help patients live longer, healthier lives. Too many people are still living with undetected, high-risk conditions such as high blood pressure, raised cholesterol, and atrial fibrillation (AF). We must utilise all opportunities to work with partners to ensure that people are able to access services that will allow them to prevent and detect health conditions, and upon diagnosis ensure that conditions are managed and optimised effectively. We must support Primary and Community care to case find and treat people with the 3 key high-risk conditions described above (AF, Hypertension, and FH). In tackling the CVD agenda, there is an ambition to Prevent 150,000 heart attacks and strokes.

CVD management is available across all parts of the current health system but the CCG has recognised within its plans the need to focus on this key area. Current ongoing projects include:

AF Optimisation and Detection Programme

16 month project designed to optimise management of patients identified as having or at risk of AF. Scheme available to all participating GP practices in the Southern Collaborative to include; identification of patients from clinical systems, clinically led

appointment to risk assess, educate and prescribe optimal medication and an educational programme for Primary and Secondary care clinicians.

Hypertension Detection and Optimisation Programme

Data analysis, audit and education programme aimed at improving the quality of primary care for this condition.

Hypercholesterolemia Programme

Data analysis and communication plan with all Primary Care to ensure patients are detected and are referred into a specialist Lipids clinic if found to have a cholesterol of 7.5mmol or more. These patients will be risk assessed and cascade testing offered to ensure this is prevented in future generations.

Future Intentions

Cardiac Rehabilitation

Review of Cardiac Rehabilitation services and aim to increase referral and uptake of cardiac rehabilitation during 2021/22.

Heart Failure

Pilot schemes in 2020-22 to increase access to echocardiography, improve investigation of those with breathlessness and early detection of heart failure and valve disease.

AF Optimisation and Detection Programme

CVDPREVENT audit will also be used in 2020.