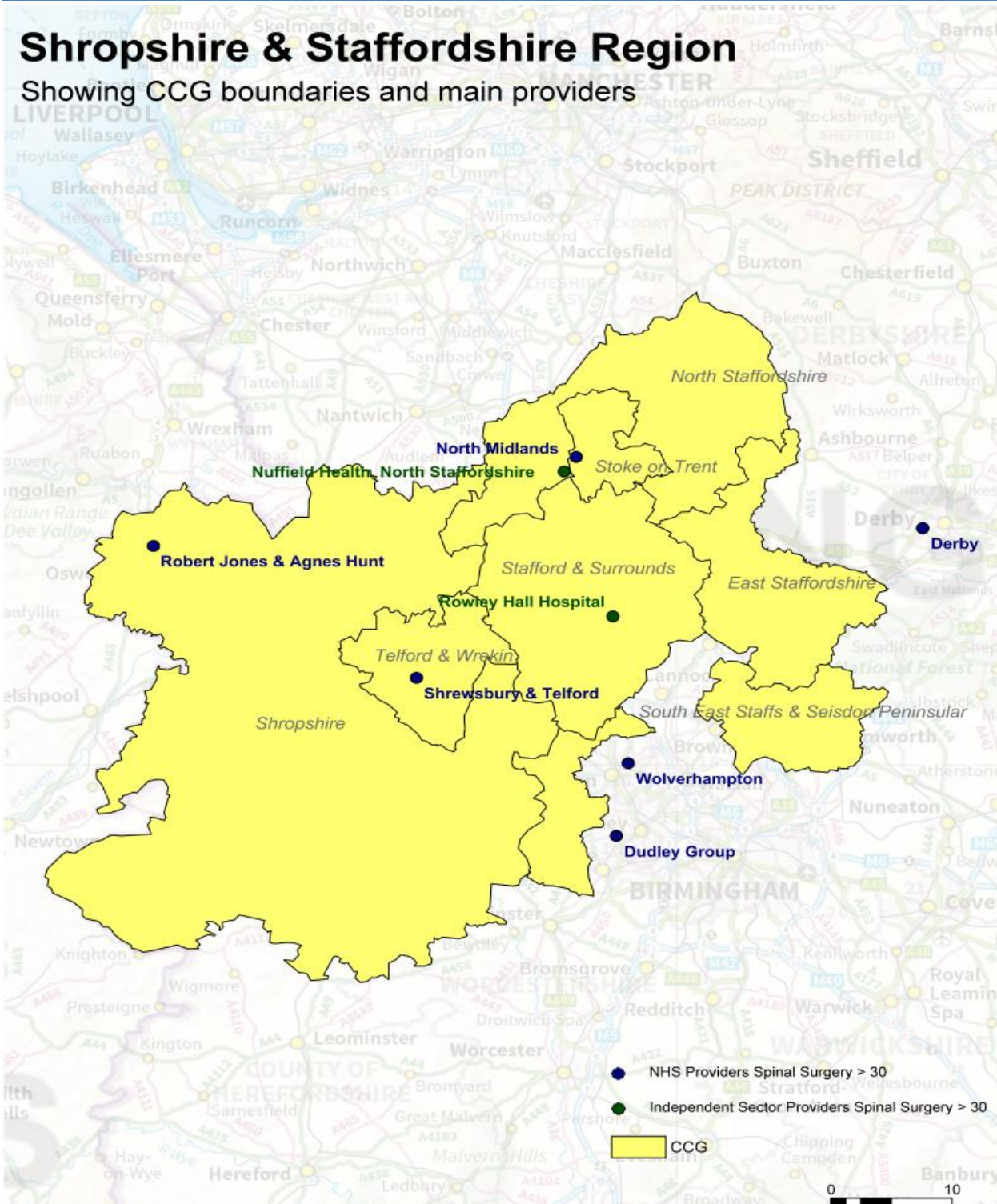


Back Pain Report

Stafford & Surrounds

June 2016



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Better Knowledge Better Care Better Outcomes

NEQOS Back Pain Report

This back pain report contains health intelligence produced by NEQOS to support the implementation of the national pathfinder project to provide better pathways of care for people with low back and radicular pain. The NHS England Pathfinder Projects were established to address high value care pathways which cross commissioning and health care boundaries. Many conditions require a pathway of care which moves from the general practitioner through primary care and community services and into secondary care and sometimes specialised services. Difficulties in commissioning across boundaries, however, can cause artificial interruptions in what should be a seamless care pathway. The Pathfinder Projects are designed for all Stakeholders to work collaboratively to examine in depth these health care interfaces and to develop commissioning structures to commission care across the whole pathway. The Trauma Programme of Care Board selected low back pain and radicular pain as the Pathfinder Project as this is a high value care pathway in view of the very large number of patients involved.

The future of the pathway is that it is designed to be run in primary care (general practice and community physiotherapy) and referral into secondary specialist care is only at the end of the pathway. Key to the success of the pathway are the Triage and Treat practitioners; the highly trained practitioners, either extended scope physiotherapists or nurse specialists who essentially run the pathway and have access to bookable slots for the core therapies, nerve root blocks, spinal surgical clinic appointments or pain clinic appointments. This reduces very significantly the delays in the previous system and also reduces the “pinball” management that is a feature of so many health care systems. Quality care is less expensive by reducing ineffective or repetitive treatment and by reducing conversion into chronic disability

In this profile, the current utilisation of secondary care services for back and radicular pain are shown by CCG and providers, including both NHS Trusts and Independent Sector providers to demonstrate variation in activity regionally and across England. This report is based on the population of patients under the care of CCGs in the Shropshire & Staffordshire Region and provides important information about patient flows from these CCGs across all providers within this region.

Information on hospital admissions is presented by admission method (elective vs. emergency) and type of procedure (surgery, injections, pain management etc.) undertaken. The aim of this report is to assist both clinicians and commissioners in comparing treatment activity rates between regional providers and against national data to reduce variation and develop evidence based care pathways to improve patient outcomes.

Ongoing monitoring of this secondary care activity will evidence where changes implemented through the national pathfinder project for acute low back and radicular pain to provide timely access to evidence based treatments can improve the quality of patient care, provide community based alternatives to secondary care admissions for back pain and reduce secondary care expenditure.

It is important to note that this report is based on the cohort of patients with back and/or radicular pain but does not include patients who have back pain due to specific diagnosis such as cancer, infection, spinal trauma, inflammatory arthritis, cauda equine syndrome as these patients have very different treatment pathways of care.

Acknowledgements

This work has been funded through the Getting It Right First Time (GIRFT) project that is part of the Department of Health funded Clinically-Led Quality and Efficiency Programme.

Acknowledgements to the Health & Social Care Information Centre (HSCIC) as the source of data used in this report and to Professor Greenough and Mr Ashley Cole for their expert clinical guidance and advice.

Introduction and background

Low back pain is extremely common and is the largest single cause of loss of disability adjusted life years, and the largest single cause of years lived with disability in England (Global Burden of Disease, 2013). In terms of disability adjusted life years lost per 100,000, low back pain is responsible for 2,313. By contrast the remainder of musculo-skeletal complaints counts for 911, depression 704 and diabetes 337. It should be borne in mind that this is principally occurring in people of working age, or with families. UK specific data shows that LBP was top cause of years lived with disability in both 1990 and 2010 – with a 12% increase over this time. Back pain accounts for 11% of the entire disability burden from all diseases in the UK; furthermore the burden is increasing both absolutely (3.7% increase) and proportionally (7% to 8.5%).

NEQOS have produced CCG and hospital Trust level activity profiles to understand the current position in terms of secondary care activity for back and radicular pain and have worked with a range of key stakeholders from both provider and commissioner organisations to develop the profiles to ensure that the indicators shown are appropriate and relevant to the project. This information needs to be viewed in conjunction with data soon to become available from Arthritis Research UK about the prevalence of back pain and associated risk factors and where possible with locally available data from general practice, including prescribing rates, and onward referrals from primary care (e.g. physiotherapy and radiology).

Technical specification

Following a data discovery exercise supported by Professor Charles Greenough (National Clinical Director for Spinal Disorders, South Tees NHS Foundation Trust), definitions for low back and radicular pain were developed based on a combination of diagnosis codes (ICD-10) and relevant secondary care procedures were identified using OPCS 4.7 codes. These codes have been supported by Mr Ashley Cole, Chair of Specialised Spinal Surgery Clinical Reference Group (Consultant Orthopaedic Surgeon, Northern General Hospital and Sheffield Children's Hospital).

Data definitions

Data Source: Hospital Episode Statistics (Health & Social Care Information Centre via HDIS). Please note that 2014/15 data is currently classed as provisional.

CCG populations: Health & Social Care Information Centre (Ages 15 & over as at April 2015) (Data was provided in 5 year ages bands, therefore we were unable to use exact figures for Ages 16 & over)

A summary of the data definitions used is shown below:

- Time period: April 2011 - March 2015
- Primary diagnosis = back pain (specific ICD10 codes)
- Limited to episode 1
- Age 16 years and over
- Private patients are included unless specified
- Admission costs are based on the national tariff
- Directly Age & Sex Standardised Rates use the European Standard Populations

The NHS Trusts included for the Shropshire & Staffordshire Region are:

- Staffordshire & Stoke On Trent Partnership NHS Trust
- University Hospitals Of North Midlands NHS Trust
- Derby Teaching Hospitals NHS Foundation Trust
- The Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation Trust
- Shrewsbury & Telford Hospital NHS Trust
- The Royal Wolverhampton NHS Trust
- The Dudley Group NHS Foundation Trust
- Heart Of England NHS Foundation Trust

The Independent Sector Providers included for the Shropshire & Staffordshire Region are:

- Pain Management Solutions - Oaks Park PCC
- Nuffield Health, North Staffordshire Hospital
- Rowley Hall Hospital

Clinical Commissioning Group (CCG) activity summary

1. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015), summary

a. Hospital admissions at national level, indicating back pain type and admission method

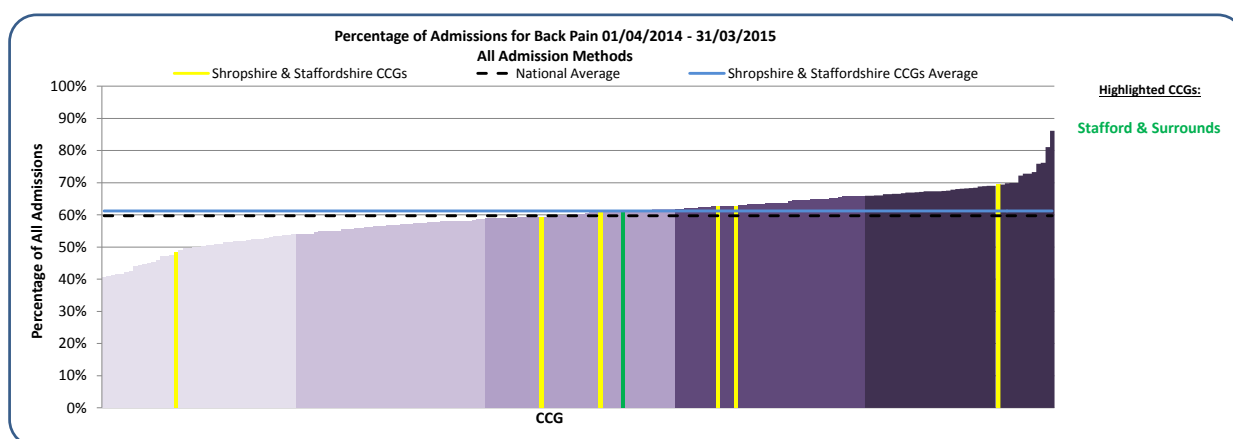
England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	237,256	56.7%	43.3%
Emergency	39,331	14,309	53,640	73.3%	26.7%
Other	771	951	1,722	44.8%	55.2%
Total	174,550	118,068	292,618	59.7%	40.3%

Staffordshire CCGs	Back	Radicular	Total	% Back	% Radicular
Elective	2,726	1,983	4,709	57.9%	42.1%
Emergency	944	318	1,262	74.8%	25.2%
Other	28	46	74	37.8%	62.2%
Total	3,698	2,347	6,045	61.2%	38.8%

b. Hospital admissions at CCG level, indicating proportion of admissions for back pain

Table indicates the proportion of admissions for back pain only (and not radicular pain)

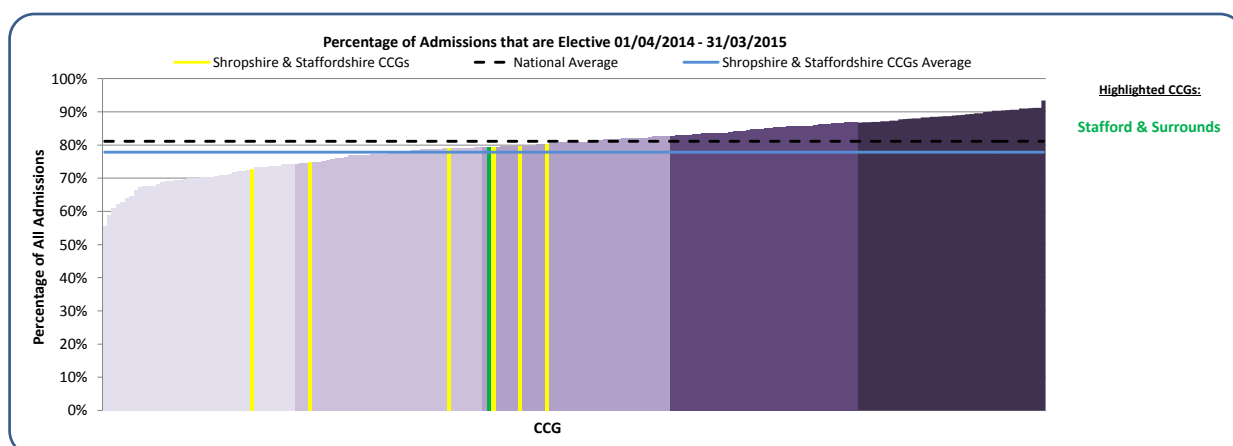
East Staffordshire	48.4%	Shropshire	62.6%
North Staffordshire	59.2%	Stoke On Trent	62.8%
South East Staffordshire & Seisdon Peninsula	60.7%	Telford & Wrekin	69.3%
Stafford & Surrounds	61.1%		
Shropshire & Staffordshire CCGs	61.2%	England	59.8%



c. Hospital admissions at CCG level, by admission method

Table indicates the proportion of admissions for back and radicular pain that is recorded as elective

North Staffordshire	72.7%	South East Staffordshire & Seisdon Peninsula	79.5%
Stoke On Trent	74.8%	Telford & Wrekin	79.7%
East Staffordshire	79.0%	Shropshire	80.4%
Stafford & Surrounds	79.4%		
Shropshire & Staffordshire CCGs	77.9%	England	81.1%



What is the data telling us?

In the 2014/15 financial year period there were almost 300,000 admissions for back and radicular pain in England, with 6,045 (2%) of these for patients registered within the Shropshire and Staffordshire CCGs.

At a national level the proportional split for hospital admissions is 60% for back pain and 40% for radicular pain, and at CCG level in Shropshire and Staffordshire the proportion of admissions for back pain ranges from 48% to 69%.

Nationally, approximately 81% of back and radicular pain admissions are elective, with Shropshire and Staffordshire having a lower proportion (78%). At a CCG level in Shropshire and Staffordshire, the proportion of elective admissions for these populations ranges from 72.7% in North Staffordshire to 80.4% in Shropshire.

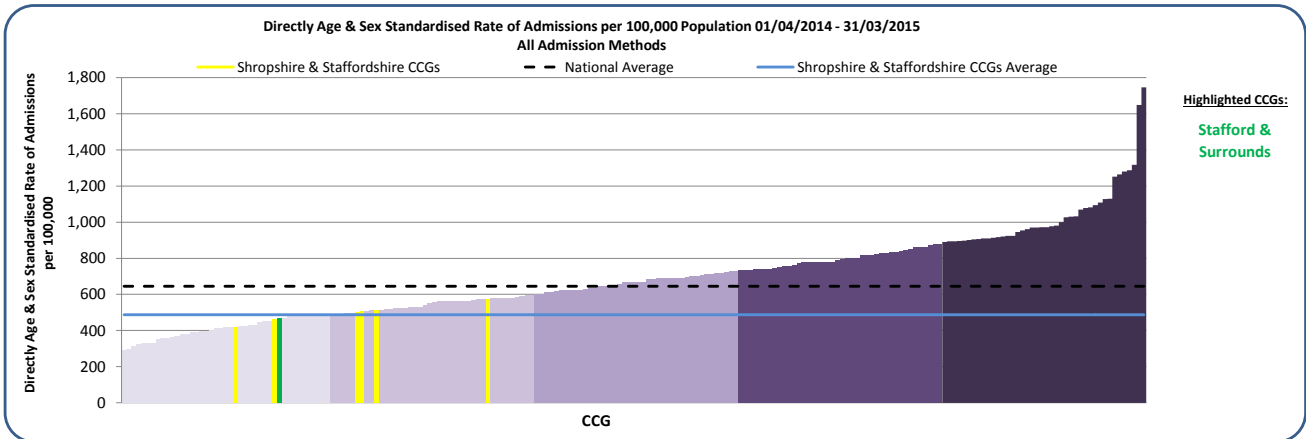
Clinical Commissioning Group (CCG) activity

2. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

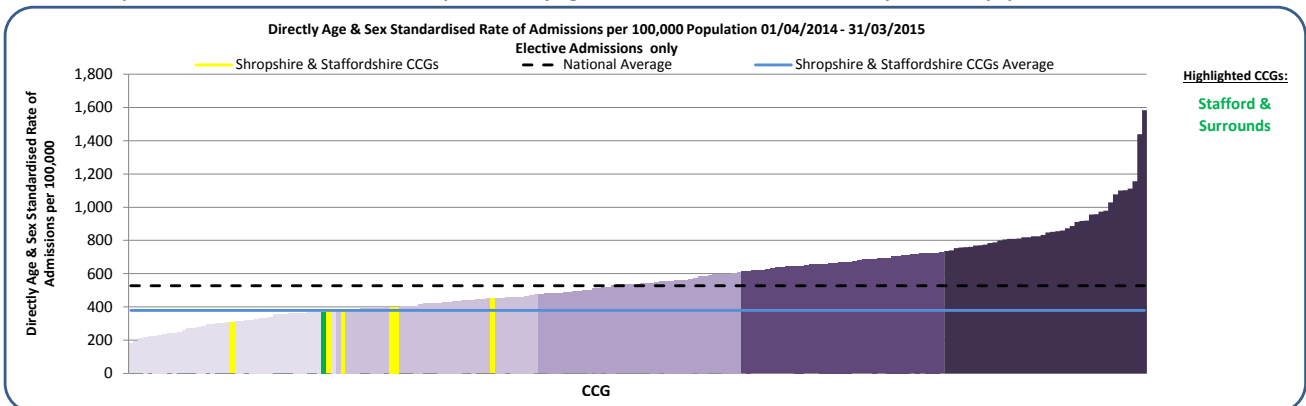
a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
South East Staffordshire & Seisdon	571.4	449.3	112.4	Stafford & Surrounds	466.8	368.6	94.8
Stoke On Trent	509.2	379.8	128.1	Shropshire	464.3	371.8	79.9
East Staffordshire	504.3	398.6	100.0	North Staffordshire	419.1	305.5	112.0
Telford & Wrekin	498.3	399.4	92.3	England	645.6	526.5	115.4
Shropshire & Staffordshire CCGs	488.2	379.2	102.8				

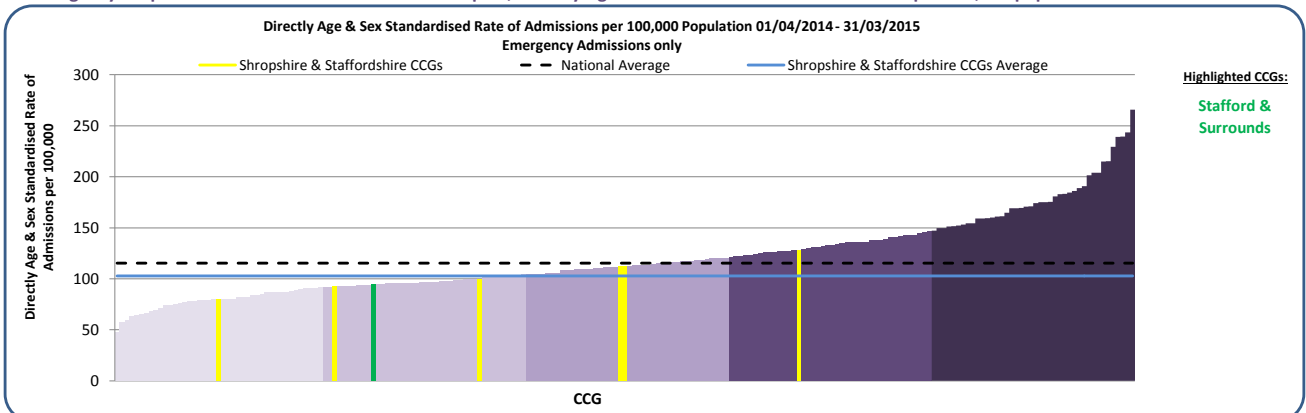
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



c. Elective hospital admissions for back and radicular pain, Directly Age & Sex Standardised Admission rate per 100,000 population



d. Emergency hospital admissions for back and radicular pain, Directly Age & Sex Standardised Admission rate per 100,000 population



What is the data telling us?

Admission rates overall and for elective admissions for Shropshire/Staffordshire CCGs vary but all seven CCGs highlighted have admission rates lower than the national average, with three CCGs in the lowest quintile.

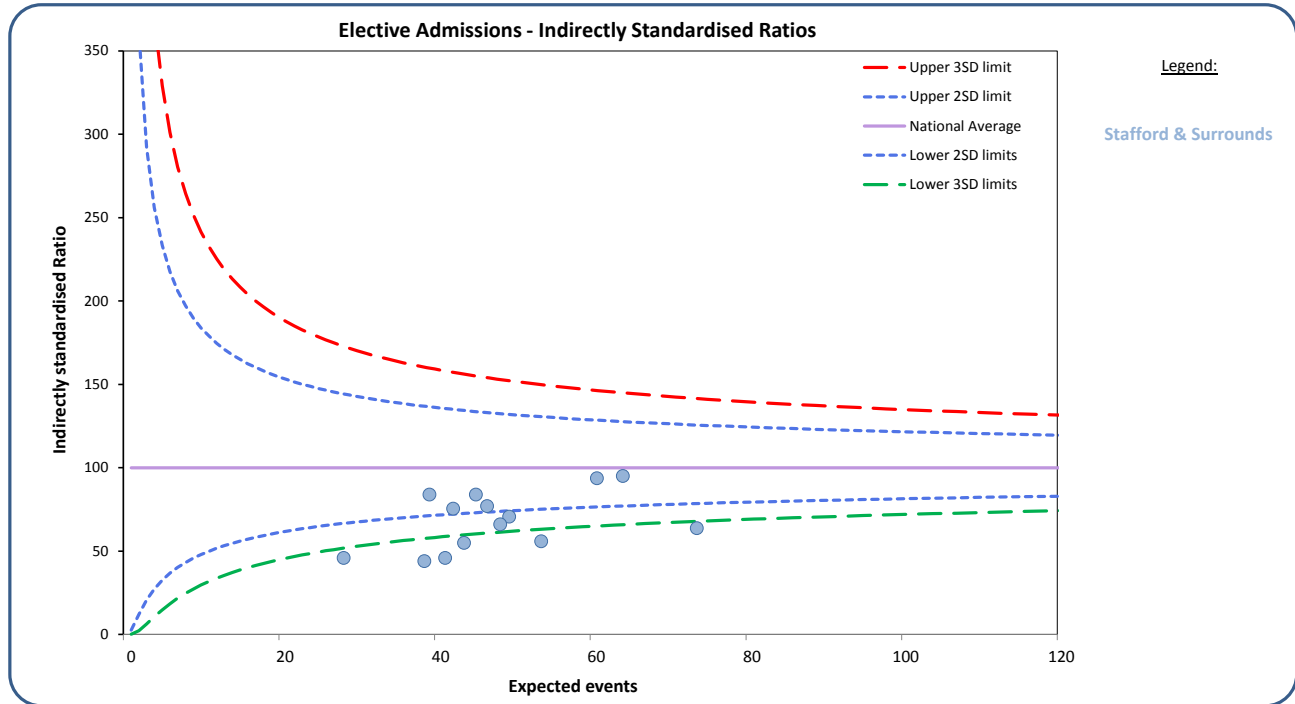
There is greater variation in rates of emergency admissions with Stoke on Trent CCG above national average.

Clinical Commissioning Group (CCG) activity - GP practice level

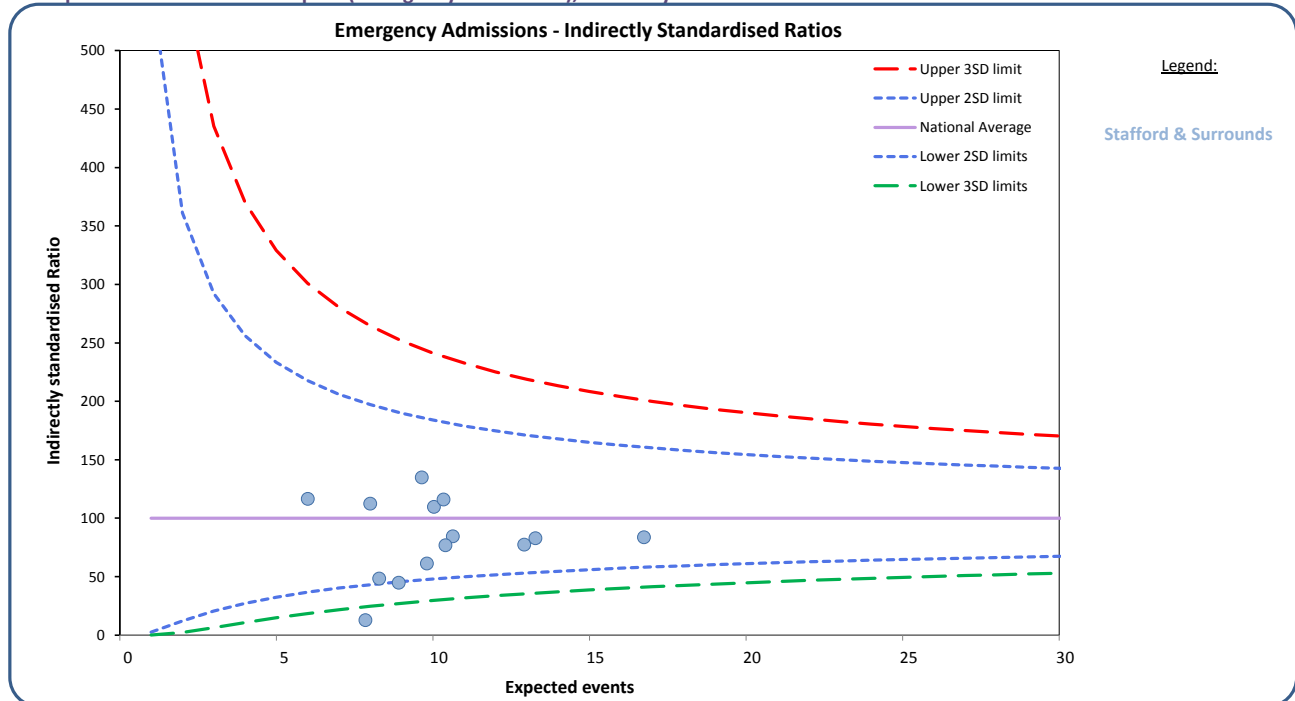
3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

a. Hospital admissions for back pain (Elective admissions), Indirectly Standardised Ratio Stafford & Surrounds



b. Hospital admissions for back pain (Emergency admissions), Indirectly Standardised Ratio



What is the data telling us?

The admission rates for elective and emergency admissions for each GP practice within the CCG are expressed as Indirectly Standardised Ratios with 100 representing the national average. This adjustment has been made due to small numbers and in order that comparisons can be made between practices.

The upper and lower confidence limits on the funnel charts above are based on national data. Each circle represents the constituent GP Practices for the selected CCG(s). All GP practices within the funnel have admission rates that are not significantly different that the national rates with those above the upper blue funnel having significantly higher rates than the national average.

4. Indirectly Standardised Ratios for Elective & Emergency Admissions for Back & Radicular Pain, by GP Practice Stafford & Surrounds

Indirectly Standardised Ratios that are coloured Red are higher than 3 standard deviations from the mean. Those coloured Yellow are between 2 and 3 higher standard deviations from the mean.

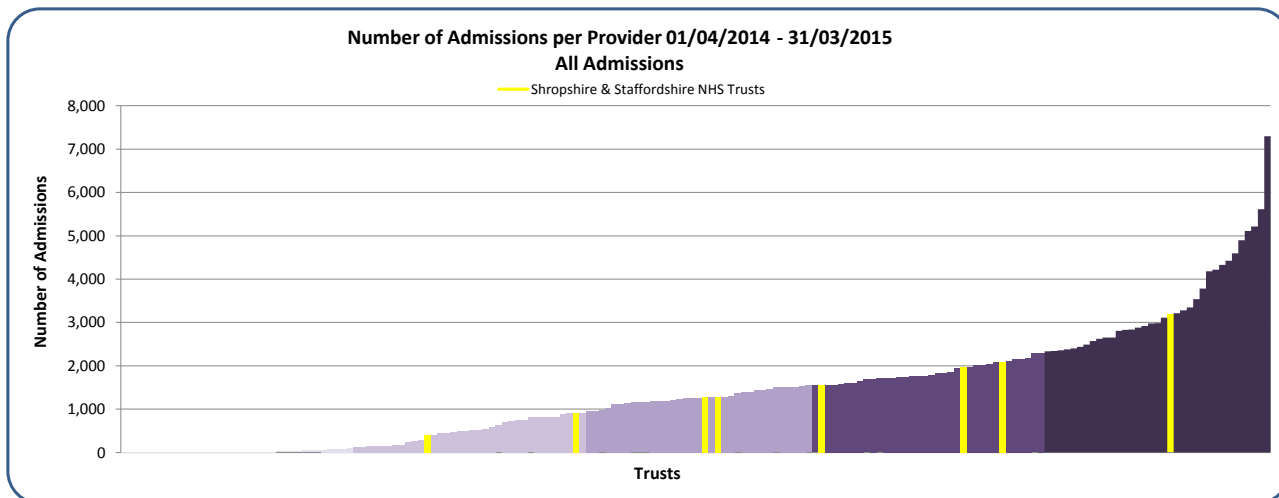
Practice Code	Practice Name	CCG	Population 15+	Elective			Emergency		
				Observed	Expected	Ratio	Observed	Expected	Ratio
M83009	Brewood	05V	8,801	30	53.70	55.86	9	10.64	84.61
M83020	Cumberland House	05V	10,653	57	60.83	93.70	10	12.91	77.44
M83022	Hazeldene House Surgery	05V	7,087	32	42.40	75.48	<6	8.28	48.29
M83024	Castlefields	05V	5,251	13	28.32	45.90	7	6.01	116.55
M83036	Rising Brook	05V	8,561	38	45.32	83.85	13	9.64	134.85
M83044	Stafford Health & Wellbeing	05V	7,947	19	41.35	45.95	<6	8.90	44.92
M83045	Penkridge Medical Practice	05V	8,630	35	49.59	70.59	11	10.04	109.61
M83049	Holmcroft	05V	8,995	32	48.43	66.07	12	10.34	116.06
M83050	Wolverhampton Road Surgery	05V	8,961	36	46.75	77.01	8	10.40	76.95
M83052	Weeping Cross	05V	15,656	47	73.68	63.79	14	16.74	83.62
M83057	Mill Bank	05V	8,464	24	43.76	54.84	6	9.80	61.20
M83069	Mansion House	05V	11,269	61	64.20	95.02	11	13.28	82.84
M83070	Gnosall	05V	6,968	17	38.66	43.97	9	7.99	112.58
M83092	Crown Surgery	05V	6,445	33	39.34	83.89	<6	7.85	12.74

Hospital Trust activity

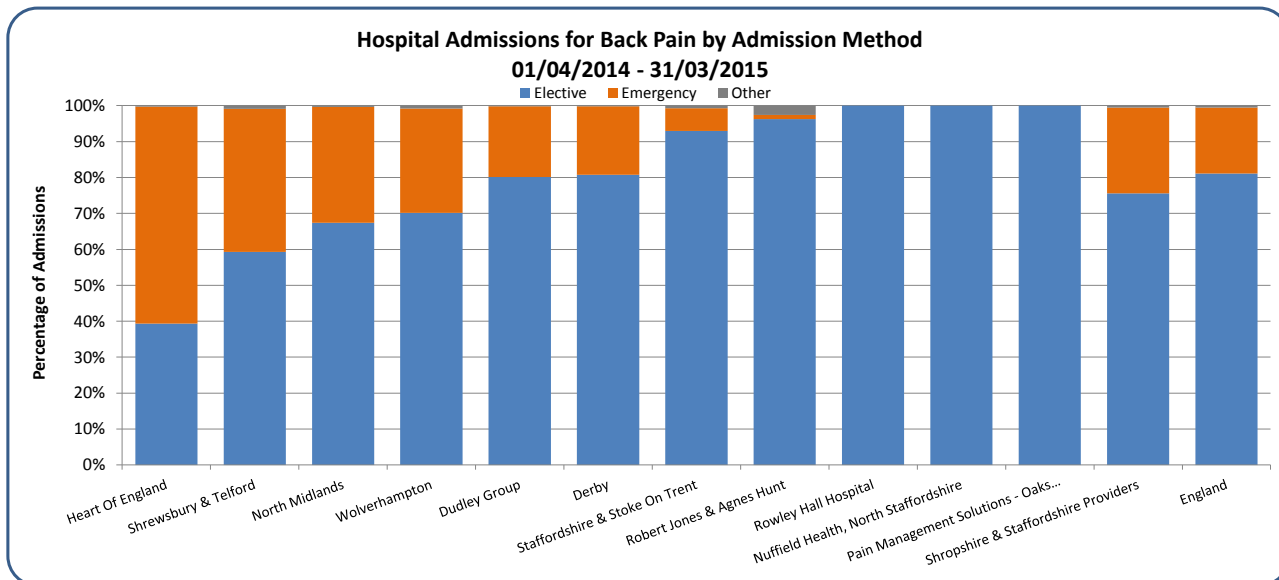
5. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Number of hospital admissions for back pain (all admission methods, NHS Trusts only)

Derby	3,185	Robert Jones & Agnes Hunt	1,286
Dudley Group	2,094	Wolverhampton	1,278
North Midlands	1,968	Shrewsbury & Telford	909
Heart Of England	1,564	Staffordshire & Stoke On Trent	398
Shropshire & Staffordshire NHS Trusts	12,682	England	251,444



b. Number of admissions per hospital Trust, by admission method (Shropshire & Staffordshire Providers only)



What is the data telling us?

The total number of admissions for back pain, rather than a rate, is presented due to the absence of a relevant denominator at hospital Trust level. Activity for the 8 NHS Trusts is to some degree proportional to the size of the Trust and is spread across the quintile chart.

The proportion of hospital activity for back pain which is classed as elective care for Shropshire and Staffordshire is lower than the England proportion. However at NHS Trust level the proportion varies between 40% at Heart of England Hospital to 97% at Robert Jones and Agnes Hunt Trust. All NHS activity at the independent providers is classed as elective.

Hospital Trust activity

5. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

c. Elective admissions for back and radicular pain, by treatment speciality (Shropshire & Staffordshire Providers only)

Provider Name	Pain Management & Anaesthetics	Trauma & Orthopaedics	Spinal Surgery Service	Interventional Radiology	Neurosurgery	Other Functions	Total
Staffordshire & Stoke On Trent	197	-	-	-	-	173	370
North Midlands	720	9	-	-	484	114	1,327
Derby	394	2,159	<6	-	-	15	2,568
Robert Jones & Agnes Hunt	613	538	-	-	-	87	1,238
Shrewsbury & Telford	487	38	-	-	-	14	539
Wolverhampton	326	510	-	-	-	61	897
Dudley Group	743	918	-	-	-	16	1,677
Heart Of England	577	8	-	26	-	<6	611
Pain Management Solutions - Oaks Park	766	-	-	-	-	<6	766
Nuffield Health, North Staffordshire	-	15	203	-	-	<6	218
Rowley Hall Hospital	6	<6	430	-	-	<6	436
Total	4,829	4,195	633	26	484	480	10,647

d. Elective admissions for injections for back and radicular pain, by injection type and treatment speciality (national data)

Treatment Function Title	Other Back Pain Injection	Epidural (not specified)	Epidural Lumbar	Epidural Sacral	Injection Facet Joint	Spinal Nerve Root Injection	Total
Pain Management & Anaesthetics	11,485	1,572	19,926	12,780	46,506	12,482	104,751
Trauma & Orthopaedics	1,286	175	4,190	15,658	10,080	11,518	42,907
Spinal Surgery Service	200	60	590	1,430	2,338	3,571	8,189
Neurosurgery	191	123	1,074	600	1,270	1,303	4,561
Interventional Radiology	14	1	18	3	656	2,961	3,653
Rheumatology	38	12	138	2,428	390	32	3,038
Other Treatment Functions	24	10	81	278	223	591	1,207
Total	13,238	1,953	26,017	33,177	61,463	32,458	168,306

What is the data telling us?

For elective activity the treatment speciality code indicated within the hospital data varies by hospital trust. Overall the most common specialties are Trauma and Orthopaedics and Pain Management/Anaesthetics, however Nuffield Health, North Staffordshire and Rowley Hall Hospital record the majority activity within Spinal Surgery Service and North Midlands records 484 admissions under Neurosurgery.

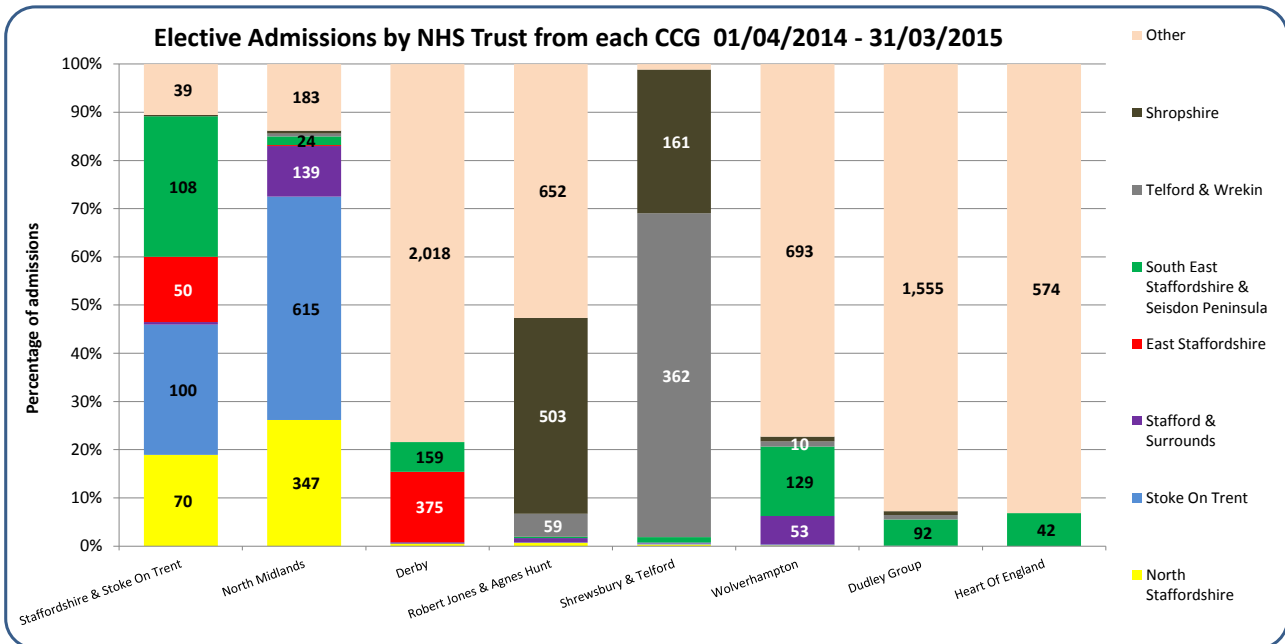
The second table shows the different types of injections being undertaken within each of the treatment function codes and demonstrates that nationally over 62% (104,751) of injections take place within Pain Management/Anaesthetics and 25% of injections are undertaken within Trauma and Orthopaedics.

The most common injection type is facet joint injections, which mainly take place within Pain Management/Anaesthetics treatment function, but are also being used in Trauma and Orthopaedics, Spinal Surgery Service and Neurosurgery.

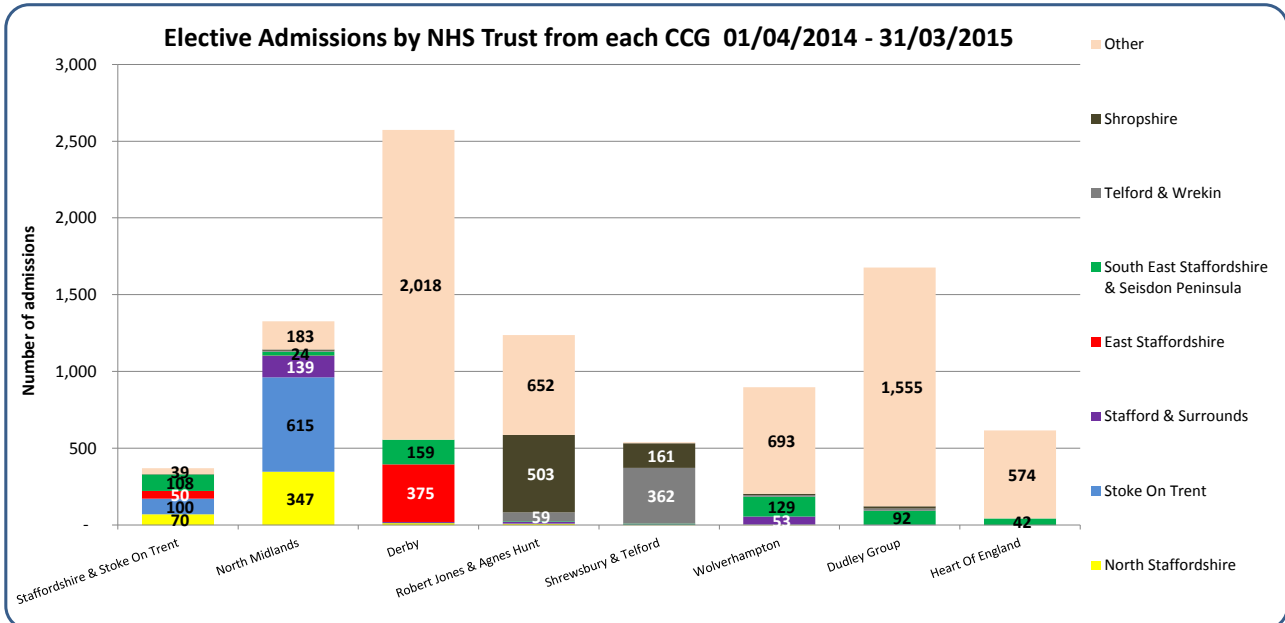
Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Hospital elective admissions by CCG population (percentage of activity)



b. Hospital elective admissions by CCG population (actual activity)



What is the data telling us?

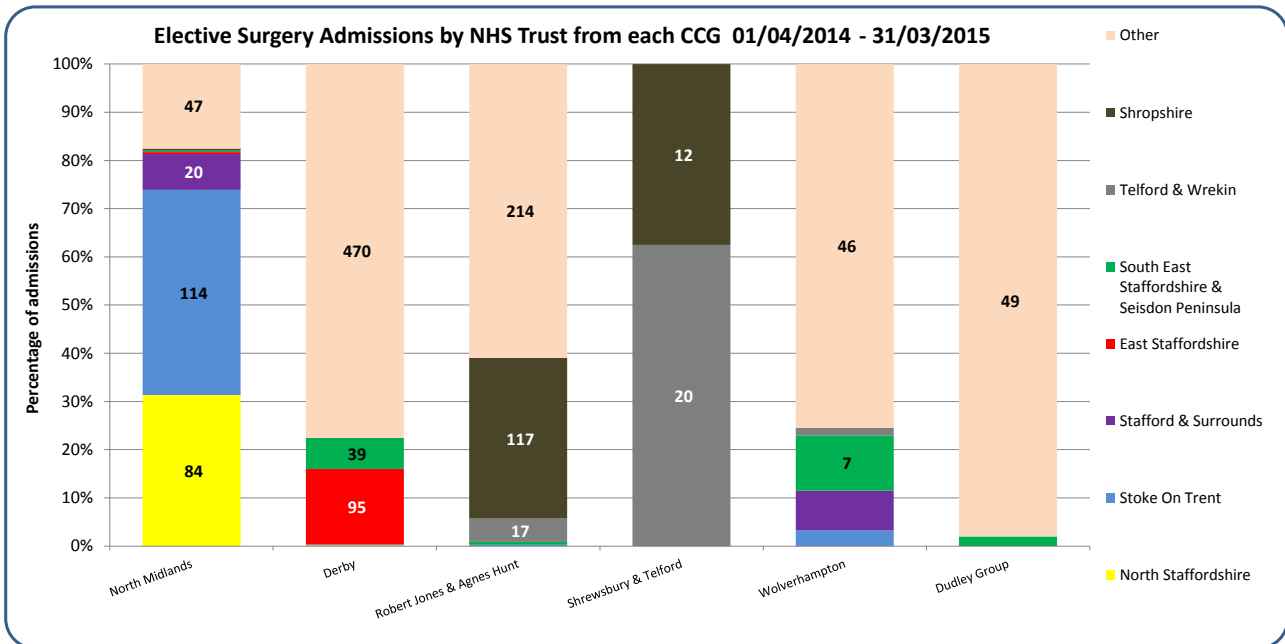
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for back and radicular pain. As some of the providers are located outside of the Staffordshire and Shropshire CCG boundary (i.e. Derby, Wolverhampton, Dudley and Heart of England) the majority of their patients are coming from CCGs outside of Staffordshire and Shropshire CCGs.

The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

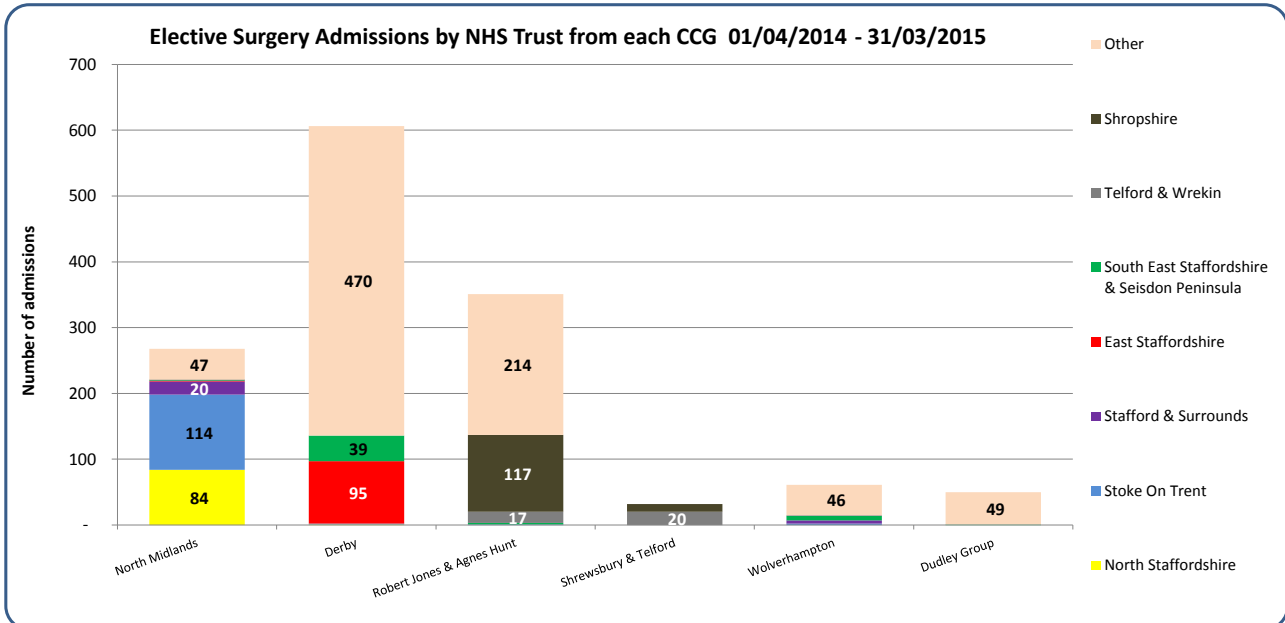
Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

c. Hospital elective admissions for surgery by CCG population (percentage of activity)



d. Hospital elective admissions for surgery by CCG population (actual activity)



What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for spinal surgery for back and radicular pain. As some of the providers are located outside of the Staffordshire and Shropshire CCG boundary (i.e. Derby, Wolverhampton, Dudley and Heart of England) the majority of their patients are coming from CCGs outside of Staffordshire and Shropshire CCGs.

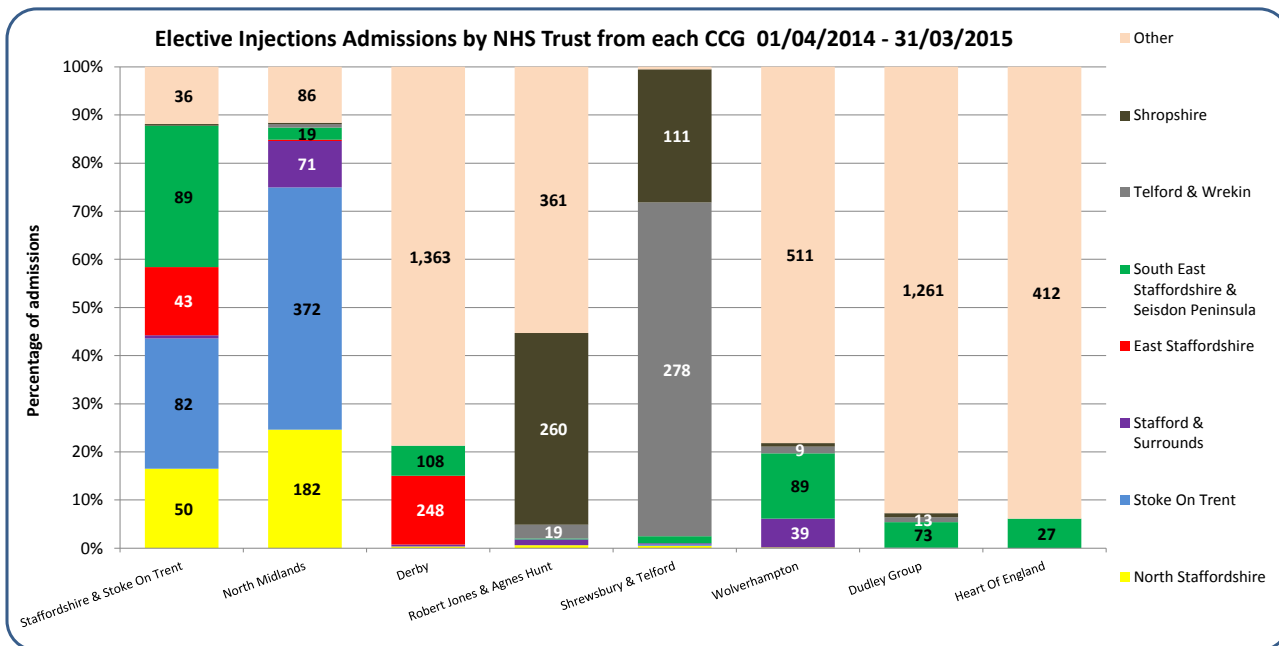
Although Robert Jones and Agnes Hunt is located within the CCG boundaries, over 60% of their activity comes from CCGs outside of the Staffordshire and Shropshire CCGs included in this report.

The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

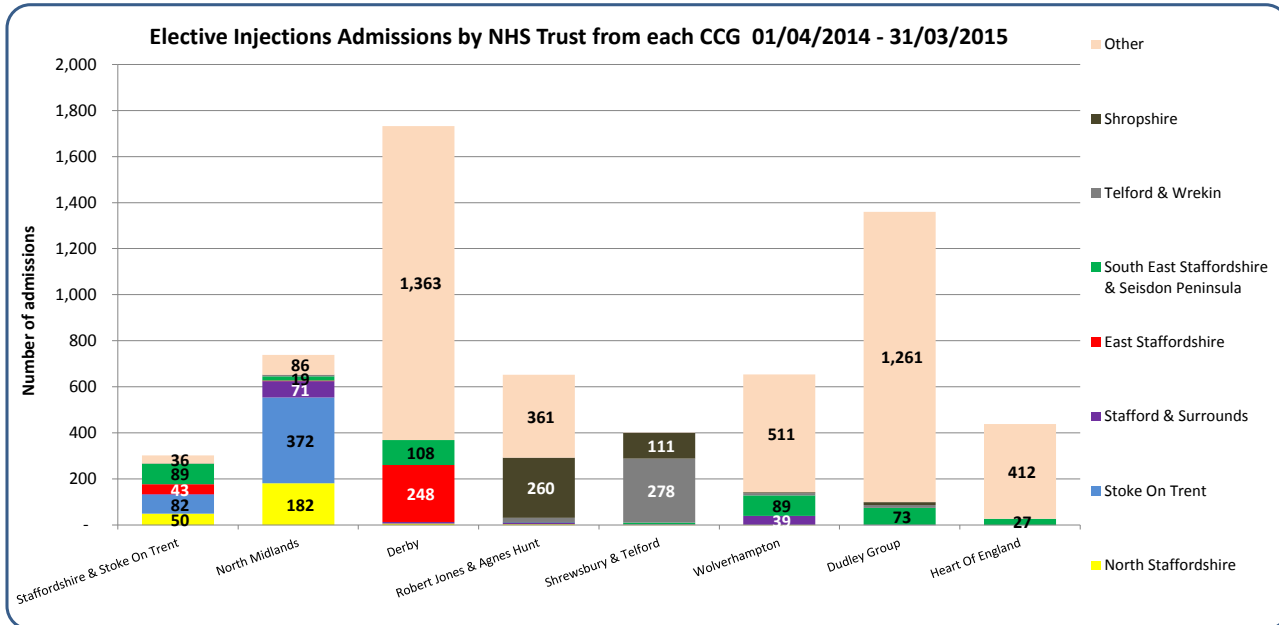
Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

e. Hospital elective admissions for injections by CCG population (percentage of activity)



f. Hospital elective admissions for injections by CCG population (actual activity)



What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for injections for back and radicular pain. As some of the providers are located outside of the Staffordshire and Shropshire CCG boundary (i.e. Derby, Wolverhampton, Dudley and Heart of England) the majority of their patients are coming from CCGs outside of Staffordshire and Shropshire CCGs.

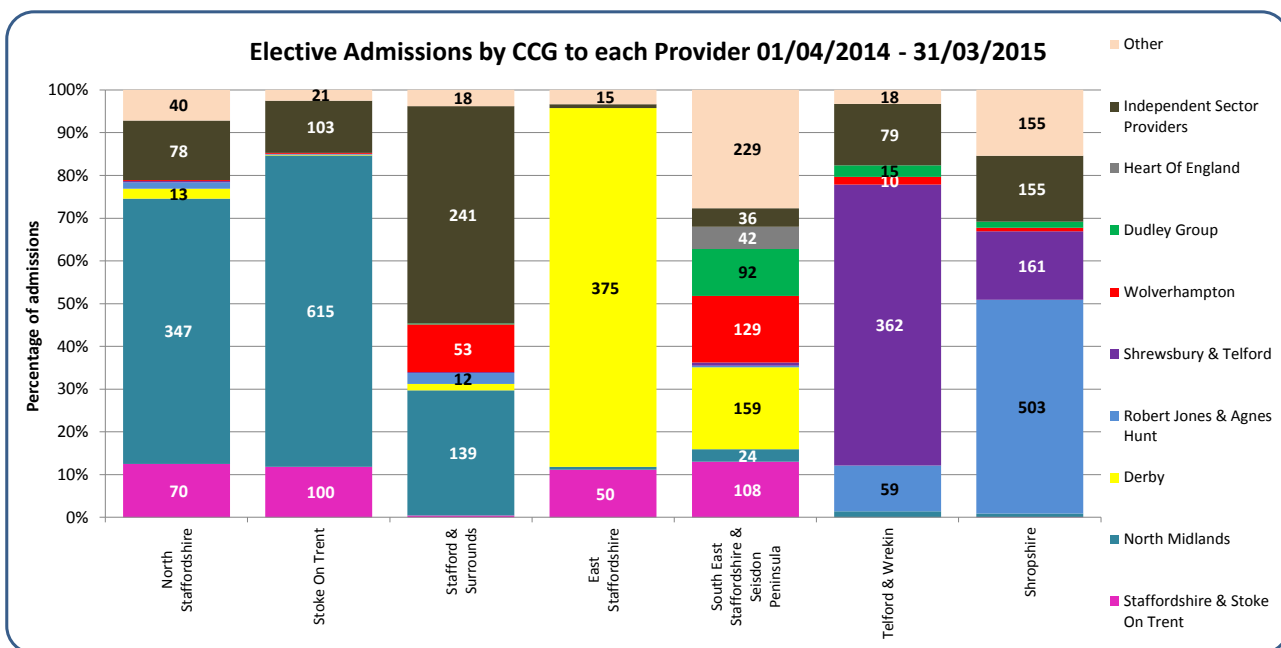
Although Robert Jones and Agnes Hunt is located within the CCG boundaries, over 50% of their activity comes from CCGs outside of the Staffordshire and Shropshire CCGs included in this report.

The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

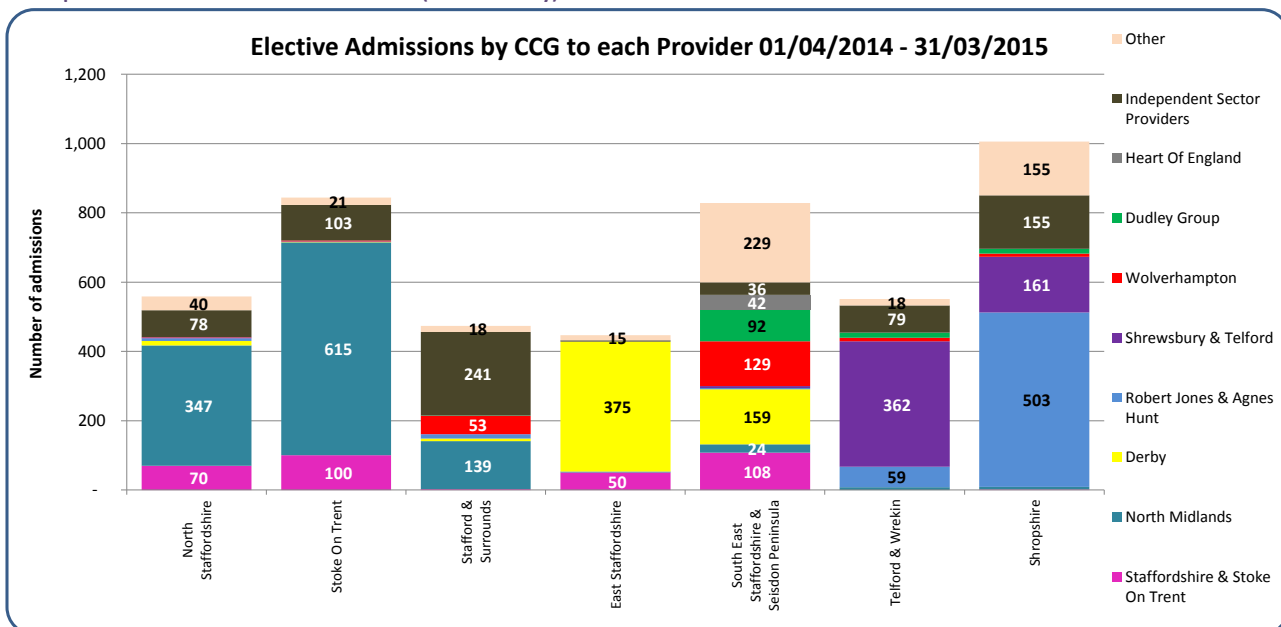
CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015)

a. Hospital elective admissions by CCG population (percentage of activity)



b. Hospital elective admissions from each CCG (actual activity)



What is the data telling us?

There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted.

Activity is highest for Shropshire CCG with about half of the admissions to the Robert Jones and Agnes Hunt Trust. Patients from South East Staffordshire & Seisdon Peninsula CCG were admitted to at least six acute hospital trusts as well as Independent Sector Providers compared to East Staffordshire CCG which almost solely used Derby Trust.

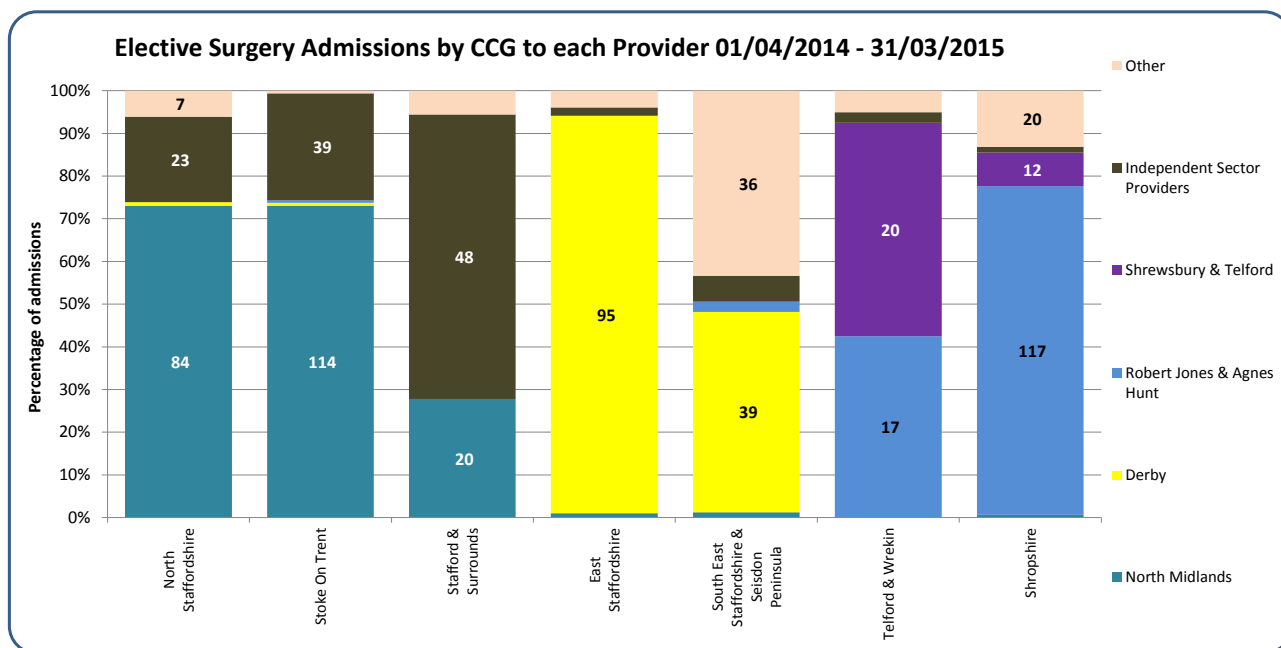
Stafford and Surrounds CCG is the highest user of Independent Sector activity in Staffordshire and Shropshire.

The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

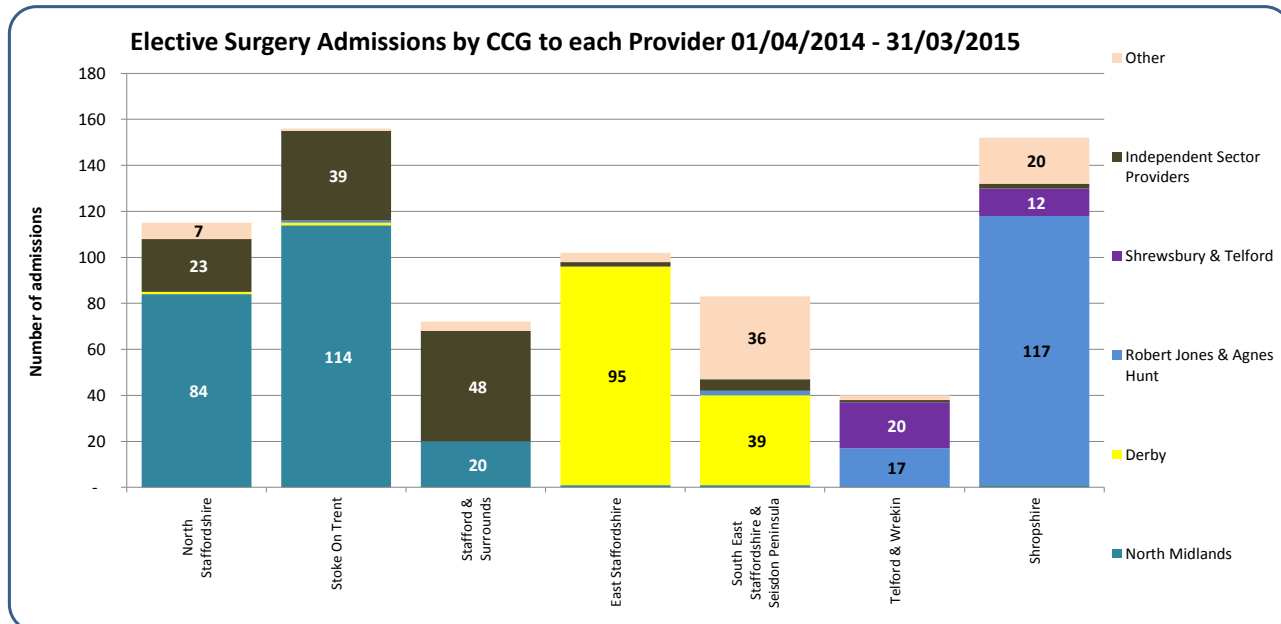
CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015)

c. Hospital elective admissions for surgery by CCG population (percentage of activity)



d. Hospital elective admissions for surgery from each CCG (actual activity)



What is the data telling us?

There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for spinal surgery. The 3 main NHS Trust providers are North Midlands, Derby and Robert Jones and Agnes Hunt.

Activity is highest for Stoke-on-Trent and Shropshire CCGs with admissions mainly to the North Midlands Trust and Independent Sector provides for Stoke on Trent CCG patients and Shropshire CCG using Robert Jones and Agnes Hunt Trust for the majority of their spinal surgery.

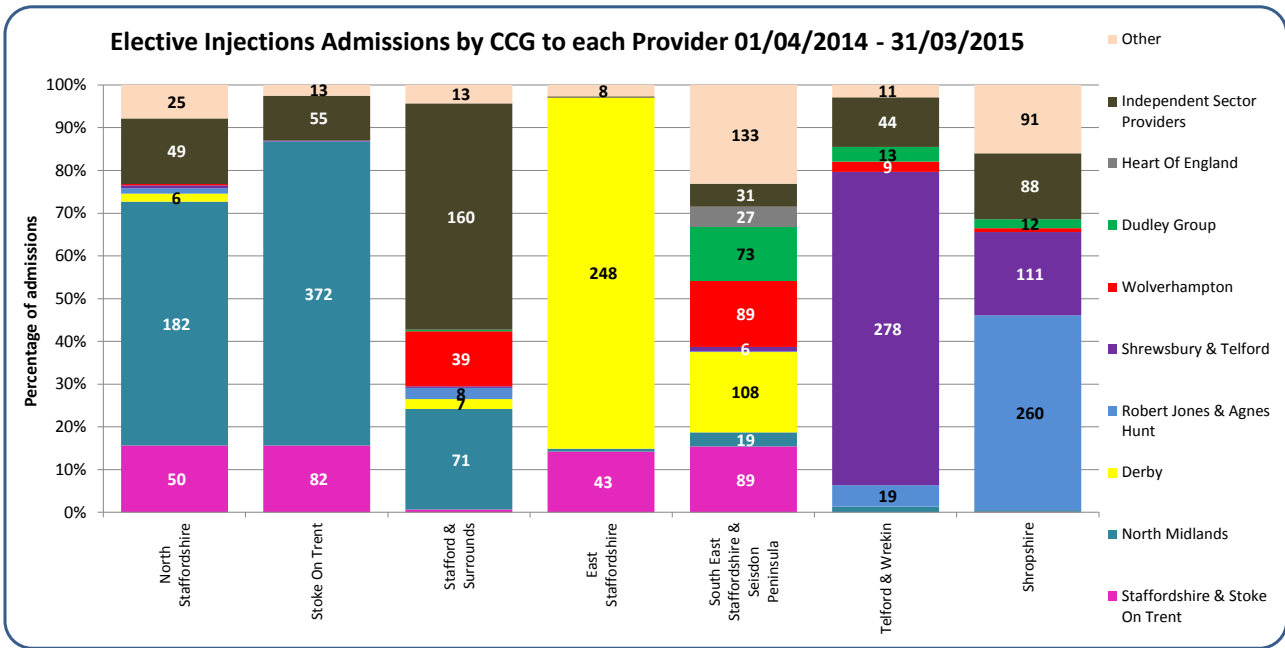
North Staffordshire, Stoke-on-Trent and Stafford and Surrounds CCGs are the highest user of Independent Sector activity in Staffordshire and Shropshire for spinal surgery.

The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

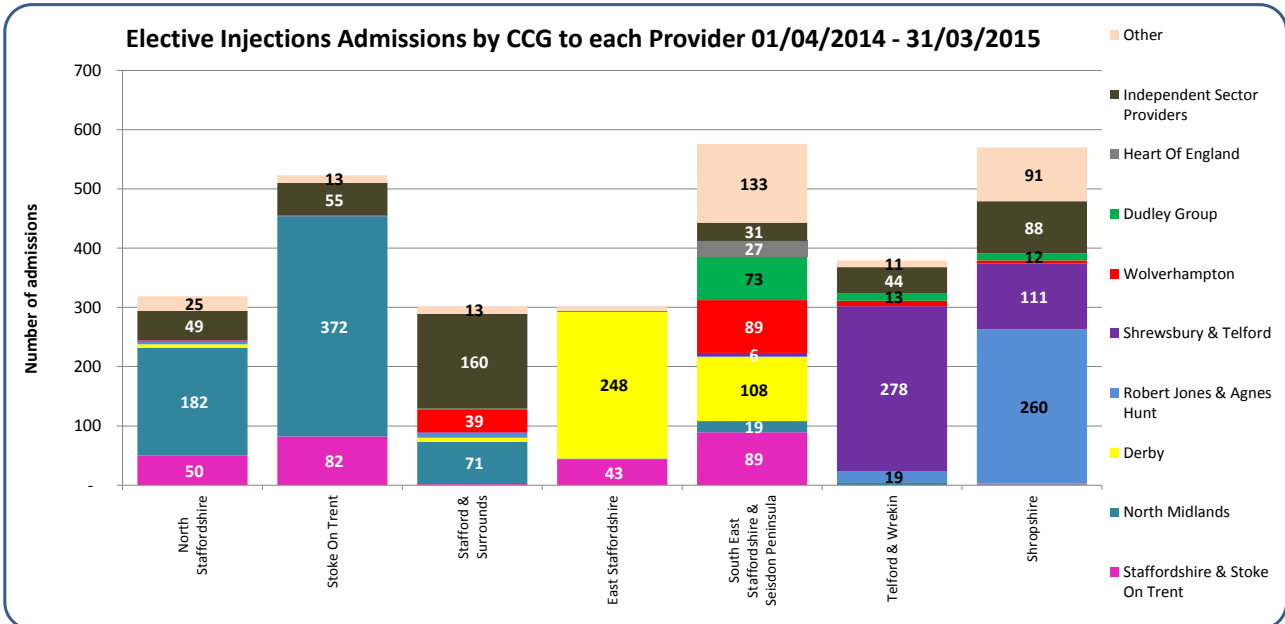
CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015)

e. Hospital elective admissions for injections by CCG population (percentage of activity)



f. Hospital elective admissions for injections from each CCG (actual activity)



What is the data telling us?

There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for injections.

Activity is highest for South East Staffordshire & Seisdon Peninsula and Shropshire CCGs with both using multiple NHS Trusts and Independent Sector providers. Shrewsbury and Telford Trust is the main provider for Telford and Wrekin CCG.

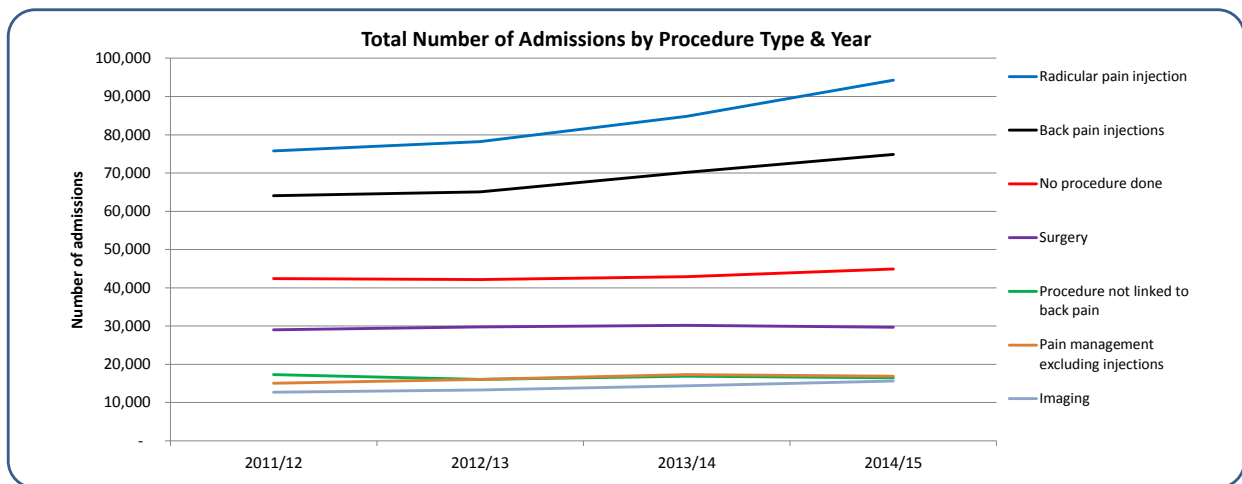
Stafford and Surrounds CCG is the highest user of Independent Sector activity in Staffordshire and Shropshire with over 50% of their admissions for injections.

The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

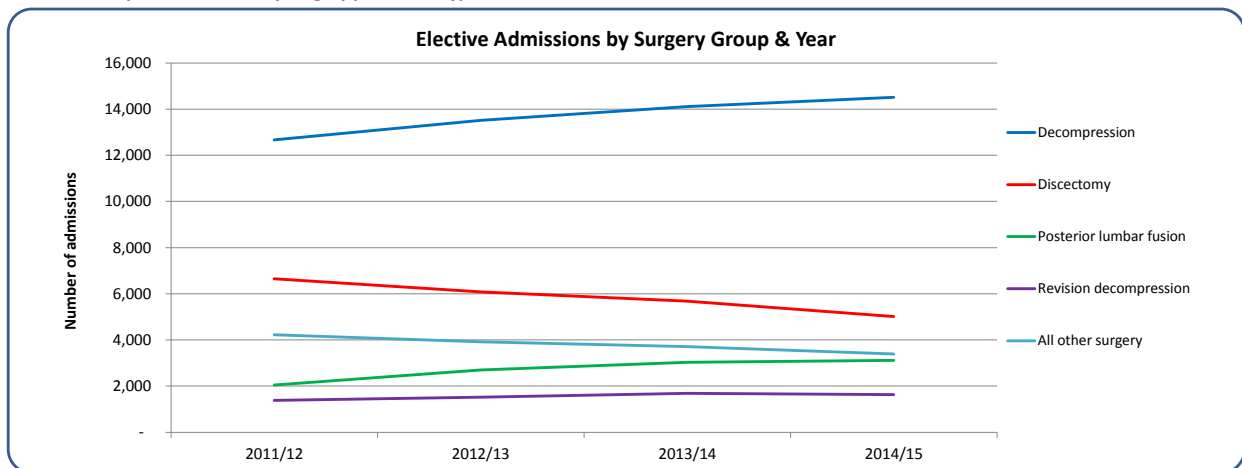
Hospital Trust activity (national level)

8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015)

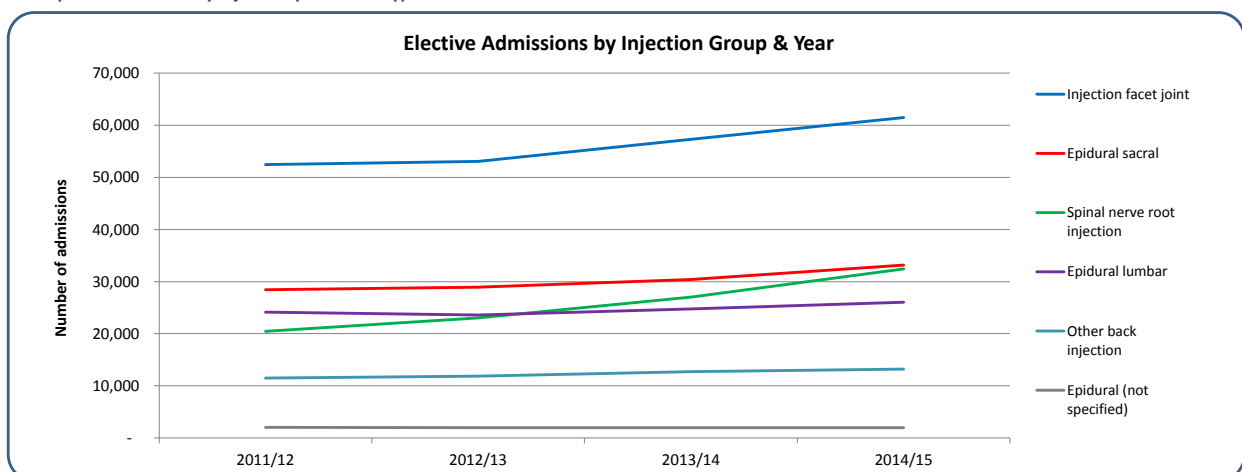
a. Hospital admissions by procedure type over time (all admission types)



b. Elective hospital admissions by surgery procedure type over time



c. Hospital admissions by injection procedure type over time



What is the data telling us?

These charts show national trends in the types of procedures undertaken during elective admissions including a group where no procedure was undertaken during their admission. There is also a category listed as 'procedure not linked to back pain' which reports admission activity where there is a primary diagnosis of back pain but with a procedure not linked to back pain.

The main procedure type relating to elective admissions are for back and radicular pain injections which has increased from a combined total of just under 140,000 to 170,000 episodes over the four year period. This is in stark contrast to number of admissions related to surgery which has remained relatively constant at 30,000 admissions per year. The proportion of admissions with no procedure reported has remained at approximately 15-16% of all activity.

The charts in sections b and c show the elective admissions over time specifically for different groups of surgery procedures and injections.

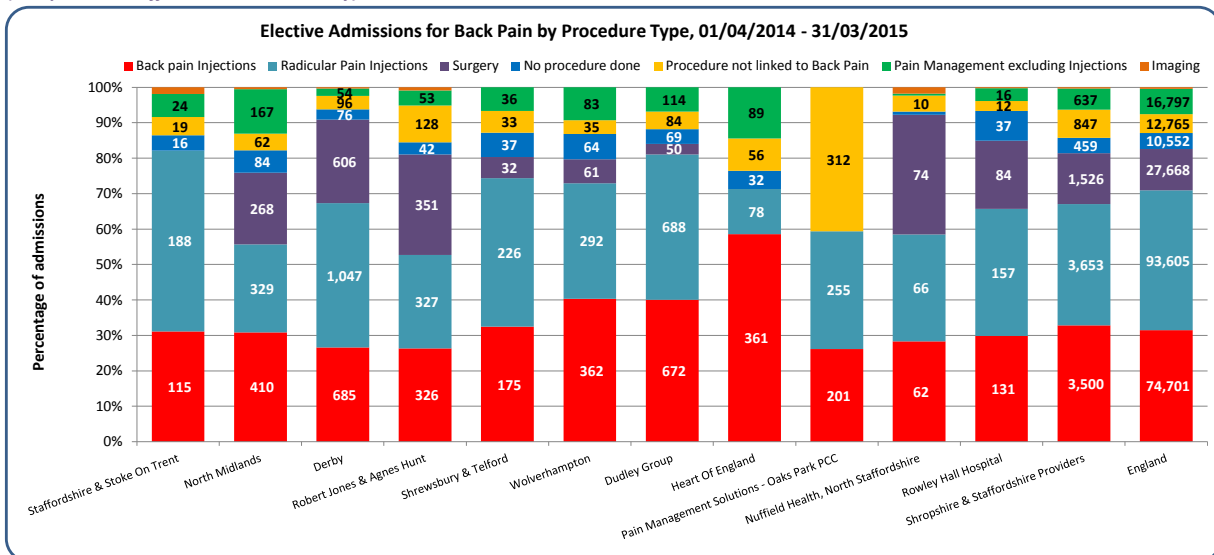
Hospital Trust activity

9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

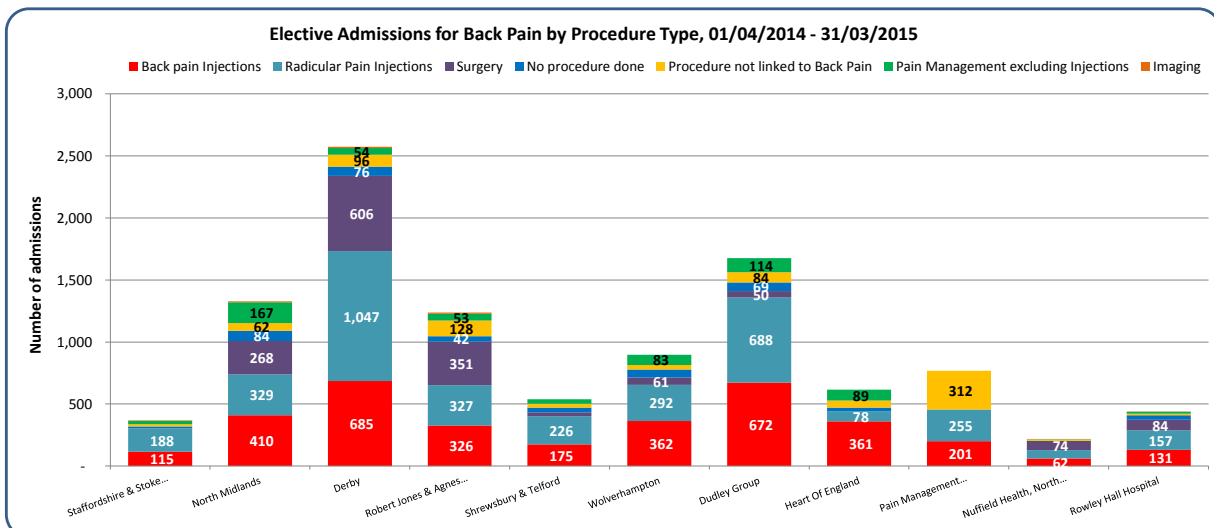
a. Elective hospital admissions by procedure type (national level including all providers)

Procedure type	Back	Radicular	Total	%
Radicular Pain Injections	40,034	53,571	93,605	39.5%
Back Pain Injections	62,317	12,384	74,701	31.5%
Surgery	3,925	23,743	27,668	11.7%
Pain Management excluding Injections	13,150	3,647	16,797	7.1%
Procedure not linked to Back Pain	8,197	4,568	12,765	5.4%
No procedure done	6,060	4,492	10,552	4.4%
Imaging	712	373	1,085	0.5%
Other Non-Surgical	53	30	83	0.0%
Total	134,448	102,808	237,256	100%

b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity) (Shropshire & Staffordshire Providers only)



c. Number of elective admissions per hospital Trust, by procedure type (actual activity) (Shropshire & Staffordshire Providers only)



What is the data telling us?

The table shows the number of procedures done in the latest 12 month period, by procedure type, with injections being the most common elective procedure. Nationally only 4.4% of elective admissions have no procedure recorded (compared to 15-16% of all admission types - see previous sheet).

Five of the Staffordshire and Shropshire Trusts have a higher proportion of elective activity for injections than the England rate (approx. 70%) and it is possible that the variation is due to differences in the point of delivery of care across hospital Trusts (for example it is possible that activity may also take place as outpatient procedures). Derby has the highest number of elective admissions with over 20% of the activity for spinal surgery. The Dudley group has the second highest activity with less than 3% for spinal surgery.

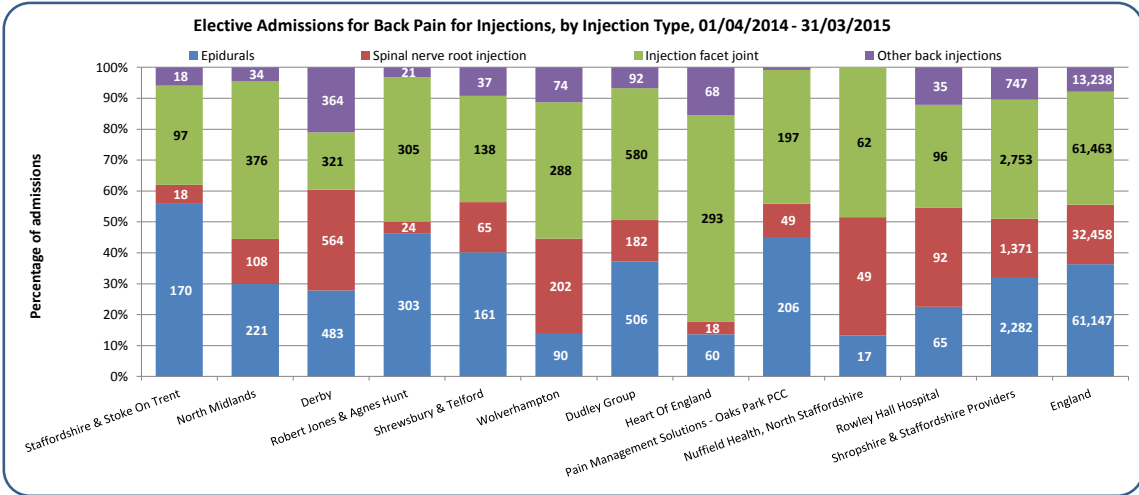
The data is shown in two ways, indicating both the proportion and amount of activity relating to each procedure.

Hospital Trust activity

9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

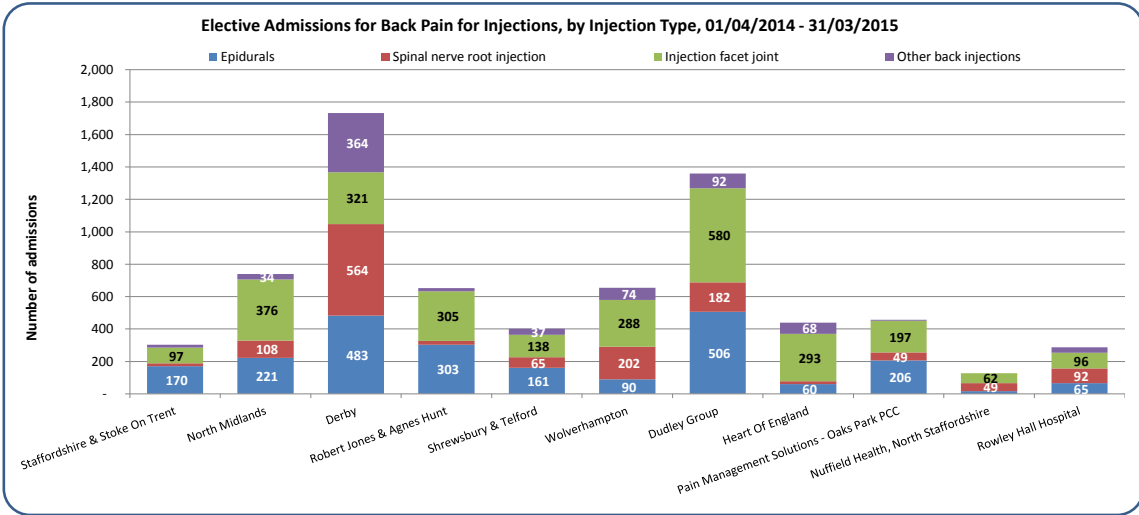
d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity)

(Shropshire & Staffordshire Providers only)

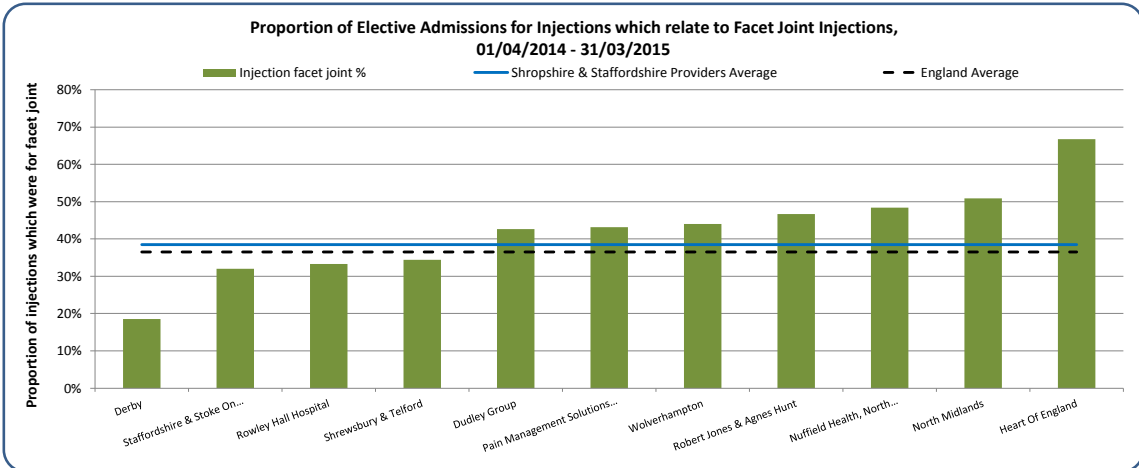


e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity)

(Shropshire & Staffordshire Providers only)



f. Proportion of elective admissions for lumbar facet joint injections, by hospital trust



What is the data telling us?

Back pain injections (including a high volume of facet joint injections) are those most frequently done within Staffordshire and Shropshire, constituting over 50% of injection activity which is higher than the England proportion (44%). Staffordshire and Shropshire providers overall do lower proportion of spinal nerve injections and epidurals.

The data is shown in two ways, indicating both the proportion of overall activity and number of episodes for each Provider.

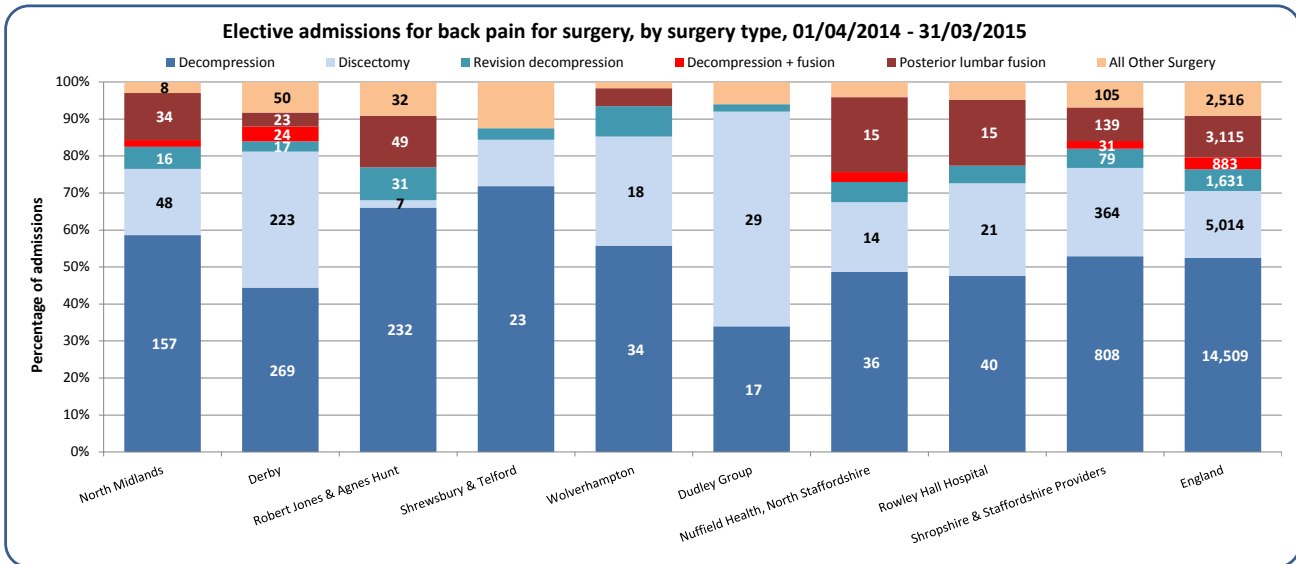
The proportion of facet joint injections done at Trust level ranges from 19% (Derby Hospital) to 67% (Heart of England) compared to the England figure of 44%.

Hospital Trust activity

9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

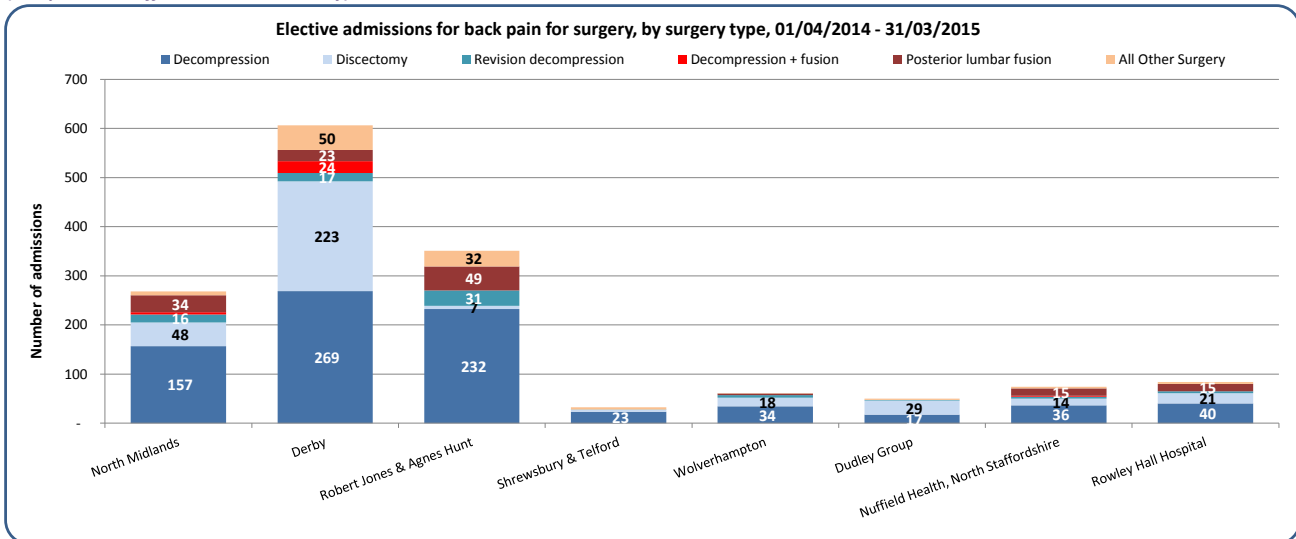
g. Number of elective admissions for surgery per hospital Trust, by surgery type (percentage of activity)

(Shropshire & Staffordshire Providers only)



h. Number of elective admissions for surgery per hospital Trust, by surgery type (actual activity)

(Shropshire & Staffordshire Providers only)



What is the data telling us?

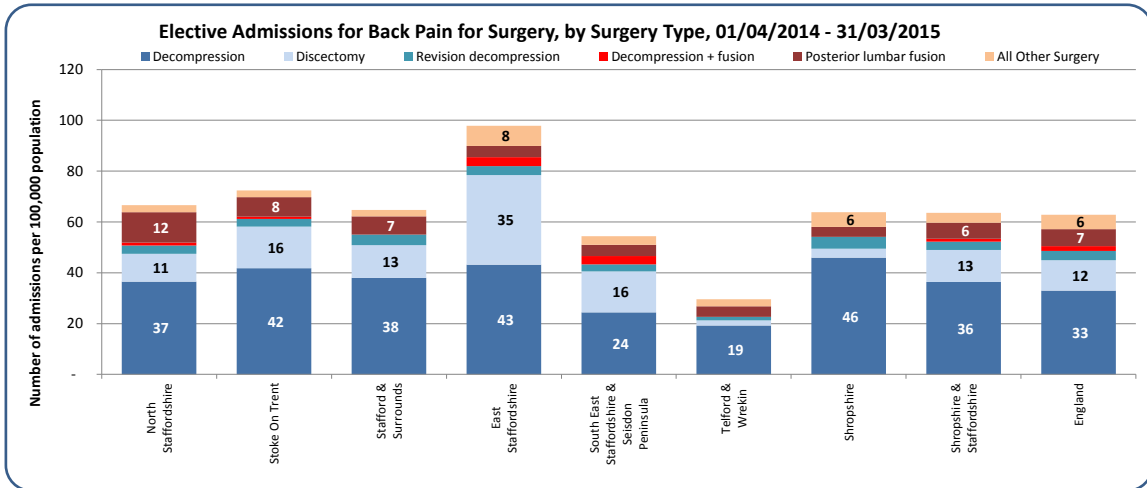
The charts above show the range in activity relating specifically to elective admissions for surgery, by type of surgery, for the Staffordshire and Shropshire providers. The profile for the Staffordshire and Shropshire overall indicates that there are higher proportion of discectomy and lower proportion of fusion surgery compared to the England profile. There are wide variations at provider level with the majority of spinal surgery being undertaken at North Midlands, Derby and Robert Jones & Agnes Hunt Trusts.

The data is shown in two ways, indicating both the proportion and amount of activity relating to each surgery type.

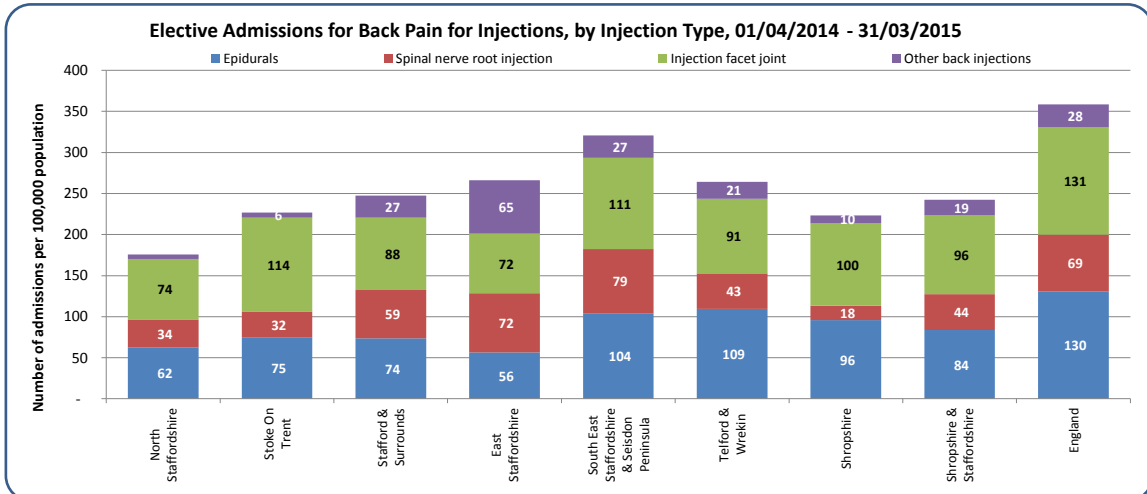
CCG activity by back pain procedure group

10. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

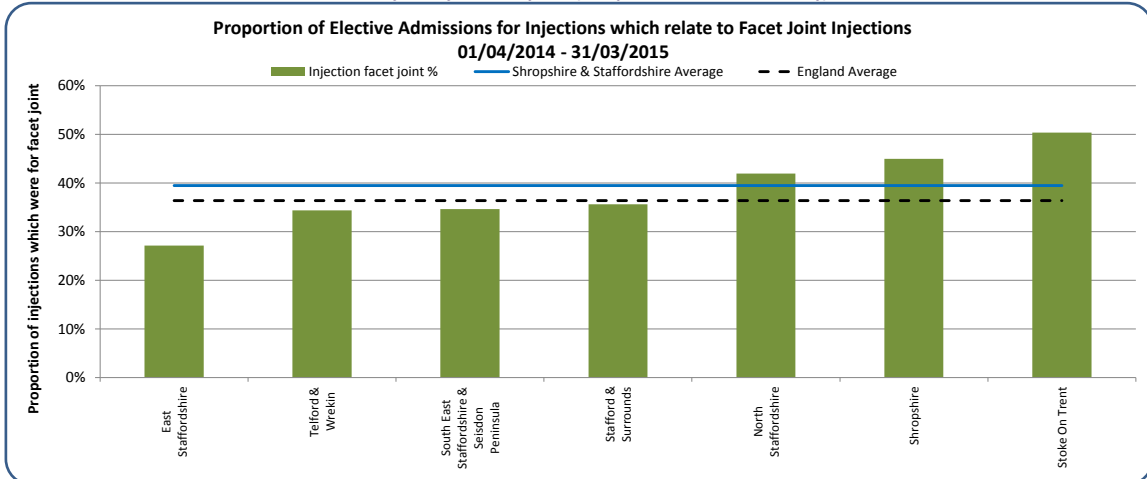
a. Number of elective admissions for surgery per CCG, by surgery type (Shropshire & Staffordshire only)



b. Number of elective admissions for injections per CCG, by injection type (Shropshire & Staffordshire only)



c. Number of elective admissions for lumbar facet joint injections, by CCG (Shropshire & Staffordshire only)



What is the data telling us?

Chart 9a shows the range in the activity rate relating specifically to elective admissions for surgery, by type of surgery, for Staffordshire and Shropshire CCGs, with chart 9b showing the same for injections.

Overall the rates of spinal surgery per 100,000 for Staffordshire and Shropshire CCGs are similar to the England rate but there is a notably higher rate per 100,000 at East Staffordshire CCGs compared to the other CCGs within this region.

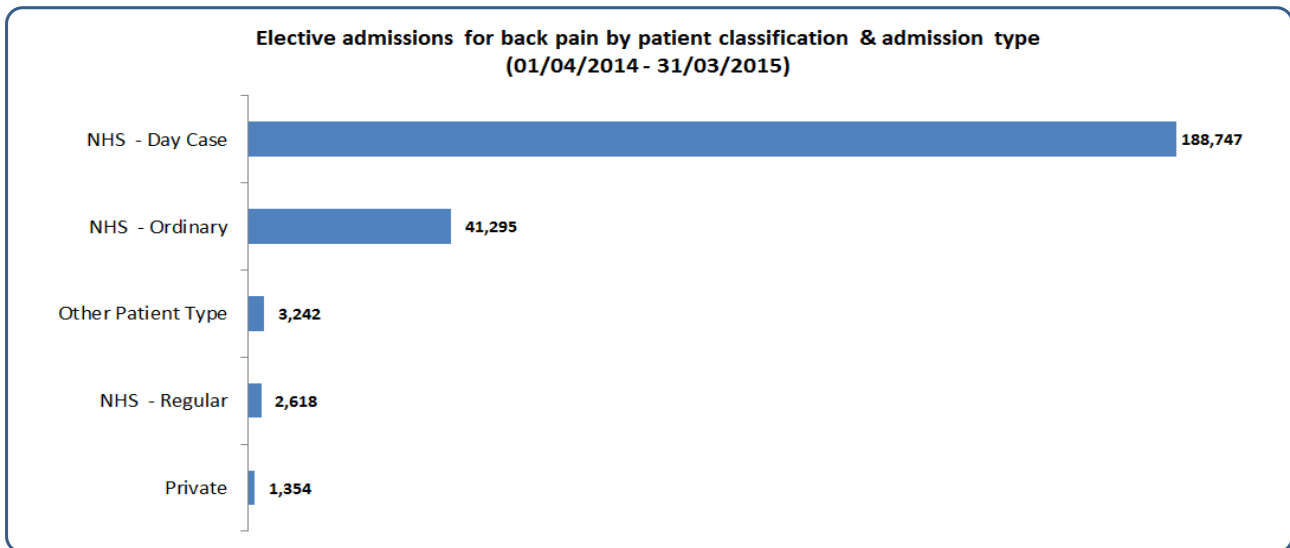
Overall the rates of injections per 100,000 for Staffordshire and Shropshire CCGs are much lower than the England rate but there are higher rates at East Staffordshire, South East Staffordshire & Seisdon Peninsula and Telford & Wrekin compared to other CCGs.

The proportion of facet joint injections done at CCG level ranges from 27% (East Staffordshire) to 50% (Stoke on Trent) compared to the England figure of 37%.

Hospital Trust activity

11. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Elective admissions for back pain by patient classification and type, all providers



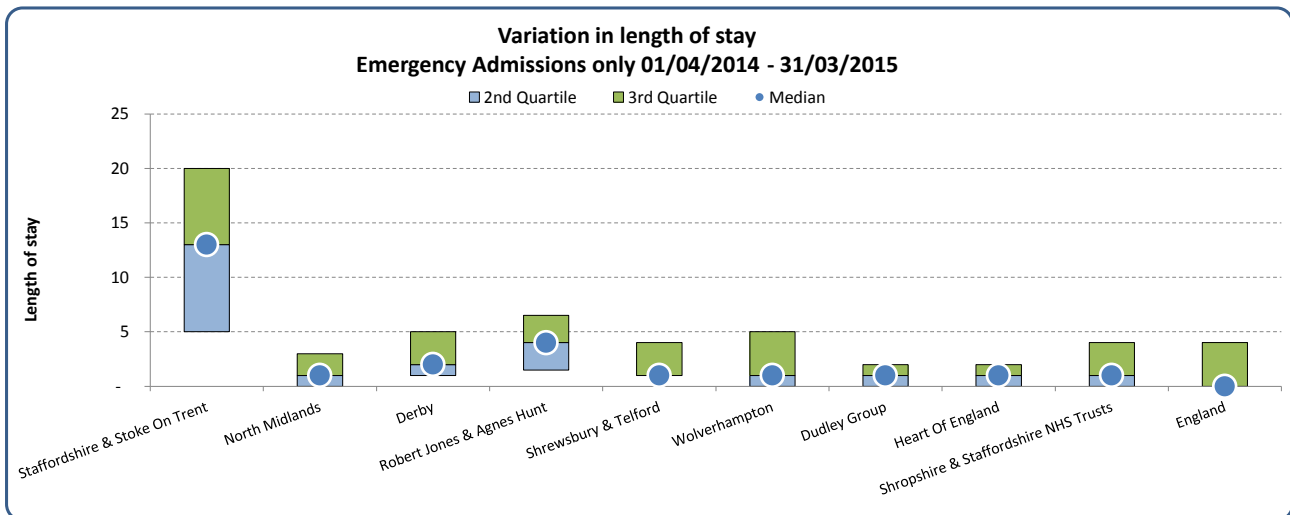
Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

b. Elective admissions for back pain, average length of stay by provider

67% of elective admissions for back pain are day cases, therefore the range in length of stay has not been calculated.

c. Emergency admissions for back pain, average length of stay by provider

(Shropshire & Staffordshire Trusts only)



What is the data telling us?

Over 98% of elective admissions for back pain in the current data extraction relate to NHS patients, with just over 0.5% relating to private patients.

The boxplot indicates the variation in length of stay for emergency admissions to Staffordshire & Shropshire Trusts and shows that all Trusts have a higher median length of stay with 5 of the 8 Trusts having a median of 1 day compared to the England rate of zero days.

Notably, Staffordshire and Stoke-on-Trent had a median length of stay of 13 days which is of concern warranting further investigation as Stoke-on-Trent CCG also had the highest rates of emergency admissions.

Hospital Trust Activity Total Costs

12. Total costs to the commissioner for hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Total Costs by Admission Method Type (Shropshire & Staffordshire FTs only)

Provider Name	Elective	Emergency	Other	Total
Derby	£ 3,905,715	£ 912,371	£ 9,428	£ 4,827,513
Robert Jones & Agnes Hunt	£ 2,949,286	£ 41,432	£ 168,320	£ 3,159,037
North Midlands	£ 2,282,424	£ 722,959	£ 10,009	£ 3,015,392
Dudley Group	£ 1,189,280	£ 394,385	£ 9,188	£ 1,592,853
Heart Of England	£ 359,597	£ 936,356	£ 13,259	£ 1,309,213
Wolverhampton	£ 757,901	£ 456,809	£ 4,701	£ 1,219,411
Shrewsbury & Telford	£ 398,571	£ 440,063	£ 7,660	£ 846,294
Staffordshire & Stoke On Trent	£ 311,492	£ 13,648	£ -	£ 325,140
Total	£ 12,154,264	£ 3,918,024	£ 222,565	£ 16,294,853

b. Total Costs by Procedure Type (Shropshire & Staffordshire FTs only)

Provider Name	Surgery	Radicular pain Injections	Back pain Injections	No procedure done	Procedure not linked to back pain	Imaging	Pain Management excluding Injections	Other Non-Surgical	Total
Derby	£ 2,672,159	£ 680,347	£ 369,255	£ 416,685	£ 348,762	£ 313,343	£ 26,963	£ -	£ 4,827,513
Robert Jones & Agnes Hunt	£ 2,065,847	£ 242,500	£ 201,339	£ 19,496	£ 566,679	£ 35,336	£ 27,839	£ -	£ 3,159,037
North Midlands	£ 1,499,834	£ 232,257	£ 232,886	£ 387,917	£ 440,509	£ 138,439	£ 83,550	£ -	£ 3,015,392
Dudley Group	£ 187,041	£ 473,752	£ 419,956	£ 297,204	£ 71,504	£ 70,202	£ 73,193	£ -	£ 1,592,853
Heart Of England	£ -	£ 50,144	£ 191,762	£ 631,803	£ 142,122	£ 227,486	£ 65,894	£ -	£ 1,309,213
Wolverhampton	£ 290,935	£ 193,251	£ 201,005	£ 238,669	£ 131,636	£ 114,573	£ 49,343	£ -	£ 1,219,411
Shrewsbury & Telford	£ 131,794	£ 144,671	£ 97,383	£ 214,656	£ 65,045	£ 174,993	£ 17,752	£ -	£ 846,294
Staffordshire & Stoke On Trent	£ -	£ 120,281	£ 61,344	£ 57,272	£ 48,847	£ 24,612	£ 12,062	£ 722	£ 325,140
Total	£ 6,847,610	£ 2,137,203	£ 1,774,929	£ 2,263,703	£ 1,815,105	£ 1,098,984	£ 356,597	£ 722	£ 16,294,853

What is the data telling us?

Across all Staffordshire and Shropshire Trusts in 2014/15 the total cost to commissioners for back and radicular pain admissions was almost £16.3 million, with 75% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the Staffordshire and Shropshire region.

Activity at Derby Hospitals accounts for 30% of the total spend for the region with Robert Jones & Agnes Hunt and North Midlands accounting for a further 19% of the spend each.

The surgery procedures group accounts for almost 42% of the total cost of all procedures, and the cost of injections is an additional 24% of the total.

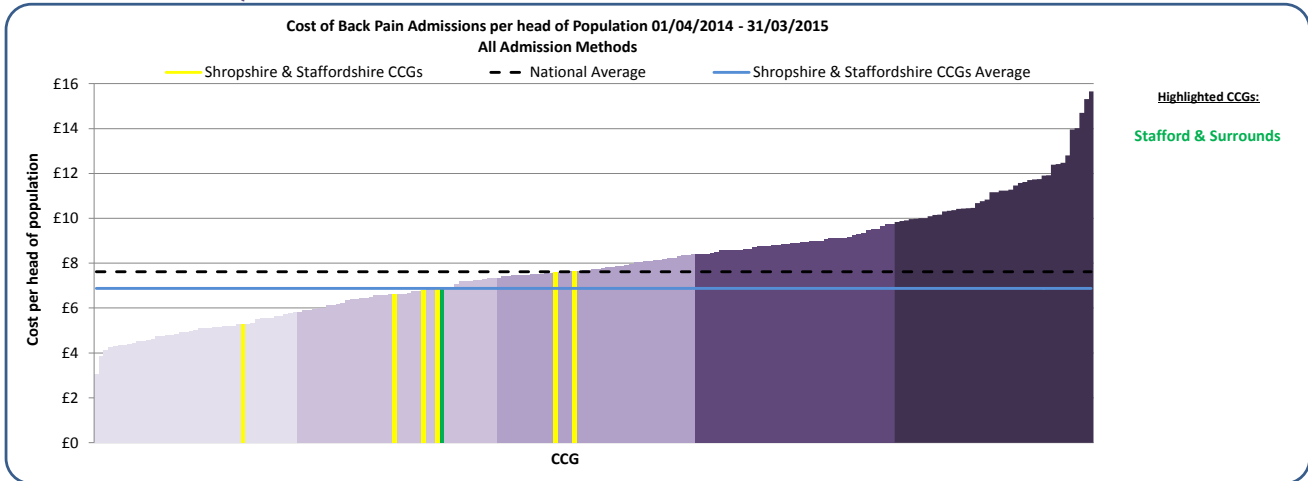
CCG Activity Total Costs

13. Hospital admissions Total Cost for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. All Admission Methods - Table

Responsible CCG Name	All Admissions		Elective Admissions		Emergency Admissions		Registered Population (Ages 15+)
	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	
Telford & Wrekin	£ 5.28	£ 766,862	£ 3.82	£ 554,931	£ 1.24	£ 180,505	145,343
South East Staffordshire & Seisdon Peninsula	£ 6.62	£ 1,192,710	£ 4.97	£ 896,810	£ 1.37	£ 246,397	180,269
North Staffordshire	£ 6.79	£ 1,244,529	£ 5.54	£ 1,015,145	£ 1.22	£ 222,980	183,290
Stoke On Trent	£ 6.90	£ 1,601,122	£ 5.68	£ 1,319,336	£ 1.21	£ 280,981	232,106
Stafford & Surrounds	£ 6.92	£ 856,180	£ 5.63	£ 696,038	£ 1.26	£ 156,073	123,688
East Staffordshire	£ 7.59	£ 861,175	£ 6.05	£ 686,426	£ 1.43	£ 161,725	113,469
Shropshire	£ 7.66	£ 1,967,187	£ 6.09	£ 1,565,522	£ 1.05	£ 269,450	256,913
Shropshire & Staffordshire Total	£ 6.87	£ 8,489,764	£ 5.45	£ 6,734,208	£ 1.23	£ 1,518,111	1,235,078

b. All Admission Methods - Quintile Chart



c. Elective Admissions only, by Procedure Type

Responsible CCG Name	Surgery	Radicular pain Injections	Back pain Injections	No procedure done	Procedure not linked to back pain	Imaging	Pain Management excluding Injections	Other Non-Surgical	Total Cost
Shropshire	£ 763,737	£ 187,321	£ 160,029	£ 20,615	£ 377,494	£ 3,908	£ 52,419	£ -	£ 1,565,522
Stoke On Trent	£ 752,541	£ 152,836	£ 159,774	£ 30,970	£ 169,829	£ 14,539	£ 38,124	£ 722	£ 1,319,336
North Staffordshire	£ 623,513	£ 107,352	£ 82,722	£ 17,605	£ 139,109	£ 20,097	£ 24,748	£ -	£ 1,015,145
South East Staffordshire & Seisdon Peninsula	£ 404,233	£ 206,671	£ 140,604	£ 1,894	£ 74,126	£ 11,747	£ 56,795	£ 740	£ 896,810
Stafford & Surrounds	£ 361,862	£ 100,100	£ 85,100	£ -	£ 125,661	£ -	£ 22,616	£ 699	£ 696,038
East Staffordshire	£ 428,095	£ 93,048	£ 90,978	£ -	£ 67,287	£ -	£ 7,018	£ -	£ 686,426
Telford & Wrekin	£ 197,104	£ 133,526	£ 92,727	£ -	£ 104,323	£ 2,283	£ 24,967	£ -	£ 554,931

What is the data telling us?

Shropshire/Staffordshire CCGs are at or below the national average for spend per head of population on admissions for back and radicular pain.

Shropshire CCG has the highest spend per head of population (£7.66) and Telford & Wrekin CCG has the lowest spend per head of population (£5.28) in the region. For emergency admissions only, East Staffordshire CCG has the highest spend per head (£1.43) and Shropshire CCG has the lowest (£1.05) in the region.

The final table shows the total spend for elective admissions for each CCG for 2014/15 (based on national tariff) and includes a breakdown of this spend by procedure type. Surgery generally accounts for the majority of the spend but in Telford and Wrekin CCG more is being spent on injections than surgery.

14. Back & Radicular Pain Admissions Breakdown for the Shropshire & Staffordshire Region

Highlighted Provider Data is included in this report

(Blue=NHS Trust & Green=Independent Sector Provider)

Code	Provider Name	Elective Admissions			Emergency Admissions	Other Admission		Total
		Surgery	Injections	Other		Types		
RJE	UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	221	653	270	558	<6		1,707
RXW	SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	32	399	102	295	6		834
RL1	THE ROBERT JONES AND AGNES HUNT ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	137	292	157	9	24		619
RTG	DERBY TEACHING HOSPITALS NHS FOUNDATION TRUST	136	369	50	56	<6		614
R1E	STAFFORDSHIRE AND STOKE ON TRENT PARTNERSHIP NHS TRUST	-	267	64	25	<6		359
RL4	THE ROYAL WOLVERHAMPTON NHS TRUST	15	143	46	35	<6		243
NVC17	ROWLEY HALL HOSPITAL	46	158	34	-	-		238
NY601	PAIN MANAGEMENT SOLUTIONS - OAKS PARK PCC	-	118	95	-	-		213
NT230	NUFFIELD HEALTH, NORTH STAFFORDSHIRE HOSPITAL	65	117	16	-	-		198
RR1	HEART OF ENGLAND NHS FOUNDATION TRUST	-	27	15	96	-		138
RNA	THE DUDLEY GROUP NHS FOUNDATION TRUST	<6	99	22	14	-		136
RRK	UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST	22	37	39	13	6		117
RJF	BURTON HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	98	<6		111
RRJ	THE ROYAL ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	26	71	8	<6	-		107
RWP	WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST	<6	43	<6	<6	-		49
RBK	WALSALL HEALTHCARE NHS TRUST	<6	37	<6	<6	-		48
RLQ	WYE VALLEY NHS TRUST	<6	29	<6	<6	<6		34
RET	THE WALTON CENTRE NHS FOUNDATION TRUST	<6	<6	28	<6	-		33
R1D	SHROPSHIRE COMMUNITY HEALTH NHS TRUST	-	-	-	17	9		26
RWJ	STOCKPORT NHS FOUNDATION TRUST	6	16	<6	-	<6		26
RBT	MID CHESHIRE HOSPITALS NHS FOUNDATION TRUST	-	9	<6	11	-		24
RLT	GEORGE ELIOT HOSPITAL NHS TRUST	-	8	11	<6	-		20
NT242	NUFFIELD HEALTH, WOLVERHAMPTON HOSPITAL	-	19	-	-	-		19
RX1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	<6	7	<6	<6	-		15
RKB	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	<6	<6	<6	<6	<6		11
RM3	SALFORD ROYAL NHS FOUNDATION TRUST	<6	7	<6	-	-		10
NVC21	WEST MIDLANDS HOSPITAL	<6	7	-	-	-		9
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	<6	<6	6	-	-		8
RJR	COUNTRESS OF CHESTER HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-		<6
RTE	GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	-	-		<6
RWW	WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST	<6	<6	<6	-	-		<6
NT424	BMI - THE MERIDEN HOSPITAL	<6	<6	-	-	-		<6
RJN	EAST CHESHIRE NHS TRUST	-	-	-	<6	-		<6
RXK	SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	-	<6	<6	-	-		<6
RY8	DERBYSHIRE COMMUNITY HEALTH SERVICES NHS TRUST	-	-	-	-	<6		<6
NT403	BMI - THE BEARDWOOD HOSPITAL	-	<6	<6	-	-		<6
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	-	-	<6	-	-		<6
RDU	FRIMLEY HEALTH NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RH8	ROYAL DEVON AND EXETER NHS FOUNDATION TRUST	-	-	<6	<6	-		<6
RQ6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST	-	-	-	<6	-		<6
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	<6		<6
RVR	EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	-	-	-	<6	-		<6
RJY	IMPERIAL COLLEGE HEALTHCARE NHS TRUST	-	-	<6	<6	-		<6
NT213	NUFFIELD HEALTH, DERBY HOSPITAL	<6	-	-	-	-		<6
NT339	SPIRE REGENCY HOSPITAL	-	<6	-	-	-		<6
NT401	BMI - THE ALEXANDRA HOSPITAL	-	<6	-	-	-		<6
NYW04	ASPEN - CLAREMONT HOSPITAL	<6	-	-	-	-		<6
R1A	WORCESTERSHIRE HEALTH AND CARE NHS TRUST	-	-	-	-	<6		<6
R1H	BARTS HEALTH NHS TRUST	-	<6	-	-	-		<6
RAE	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	<6	-	-		<6
RBA	TAUNTON AND SOMERSET NHS FOUNDATION TRUST	-	<6	-	-	-		<6
RCB	YORK TEACHING HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RGT	CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RHM	UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	<6	-	-	-	-		<6
RHW	ROYAL BERKSHIRE NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RJZ	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	-	-	<6	-	-		<6
RK9	PLYMOUTH HOSPITALS NHS TRUST	-	-	-	<6	-		<6
RM2	UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RN3	GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-		<6
RN5	HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-		<6
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	-	-	<6	-	-		<6
RRF	WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST	-	<6	-	-	-		<6
RTH	OXFORD UNIVERSITY HOSPITALS NHS TRUST	-	-	<6	-	-		<6
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	-	<6	-	-	-		<6
RWA	HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	-	-	-	<6	-		<6
RXN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	-	-	<6		<6
RXQ	BUCKINGHAMSHIRE HEALTHCARE NHS TRUST	-	-	<6	-	-		<6
NT321	SPIRE LITTLE ASTON HOSPITAL	-	<6	-	-	-		<6
NVC23	WOODLAND HOSPITAL	-	<6	-	-	-		<6
NVC40	NOTTINGHAM WOODTHORPE HOSPITAL	-	-	<6	-	-		<6
Total		736	2,971	1,002	1,262	74		6,045

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VERSION CONTROL				
Version	Document Type	Date	Amendments	By
0.1	First Draft	10/03/2016	---	Adam Fearing, Liz Lingard
0.2	Draft V2	15/03/2016	Amendments & Final QA	Adam Fearing, Kayoung Goffe
0.3	Draft V3	15/04/2016	Further minor amendments	Adam Fearing, Kayoung Goffe
0.4	Draft V4	03/05/2016	Further minor amendments	Adam Fearing
0.5	Draft V5	11/05/2016	Further minor amendments	Adam Fearing
0.6	Draft V6	13/06/2016	Narrative & formatting	Liz Lingard

CONFIDENTIALITY CHECKLIST – FOR COMPLETION PRIOR TO ANY DRAFTS SENT TO CLIENTS	
Does the report include any small numbers?	Yes
If yes, can we produce a meaningful suppressed version?	Yes, the small numbers in this report have been suppressed. Observed events less than 6 have been replaced by "<6". Rates where the numerator or denominator are less than 6 have been shown, although to calculate that small number would not be possible from the data shown here.
If not, the Epidemiologist AND Director must justify why not here, highlight, and agree the need for an NDA	
Have Lightfoot/HSCIC approved use of NDA in order to disclose small numbers?	
Has the recipient of the report signed the NDA?	