Back Pain Report

Nottingham West

June 2016

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 North Midlands 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 North Midlands Region are:

- Doncaster & Bassetlaw Hospitals NHS Foundation Trust
- Sheffield Teaching Hospitals NHS Foundation Trust
- Stockport NHS Foundation Trust
- Chesterfield Royal Hospital NHS Foundation Trust
- Nottingham University Hospitals NHS Trust
- Sherwood Forest Hospitals NHS Foundation Trust
- Derby Teaching Hospitals NHS Foundation Trust

The Independent Sector Providers included for the North Midlands Region are:

- Pain Management Solutions - Oaks Park PCC
- Aspen - Claremont Hospital
- Circle - Nottingham NHS Treatment Centre

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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

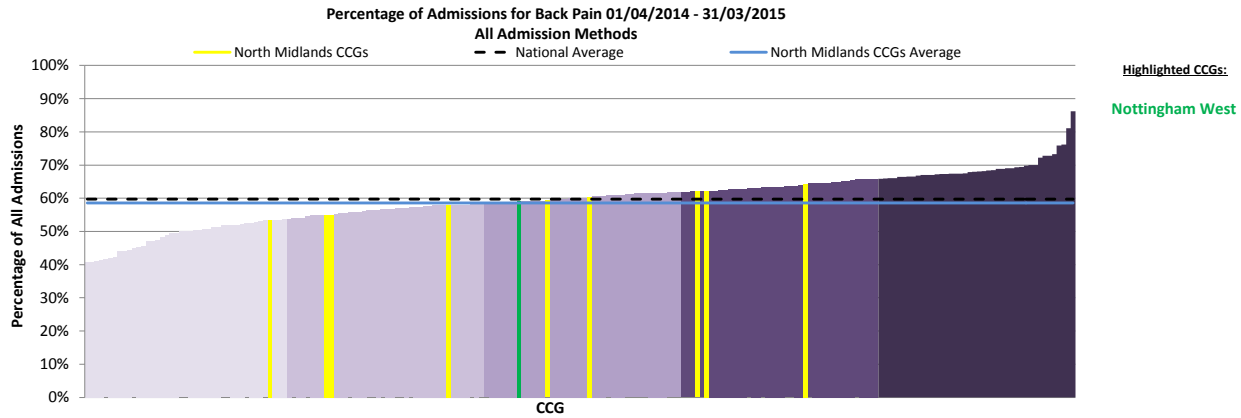
England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	**237,256**	56.7%	43.3%
Emergency	39,331	14,309	**53,640**	73.3%	26.7%
Other	771	951	**1,722**	44.8%	55.2%
Total	**174,550**	**118,068**	**292,618**	**59.7%**	**40.3%**

North Midlands CCGs	Back	Radicular	Total	% Back	% Radicular
Elective	6,093	4,863	**10,956**	55.6%	44.4%
Emergency	1,498	495	**1,993**	75.2%	24.8%
Other	32	32	**64**	50.0%	50.0%
Total	**7,623**	**5,390**	**13,013**	**58.6%**	**41.4%**

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)

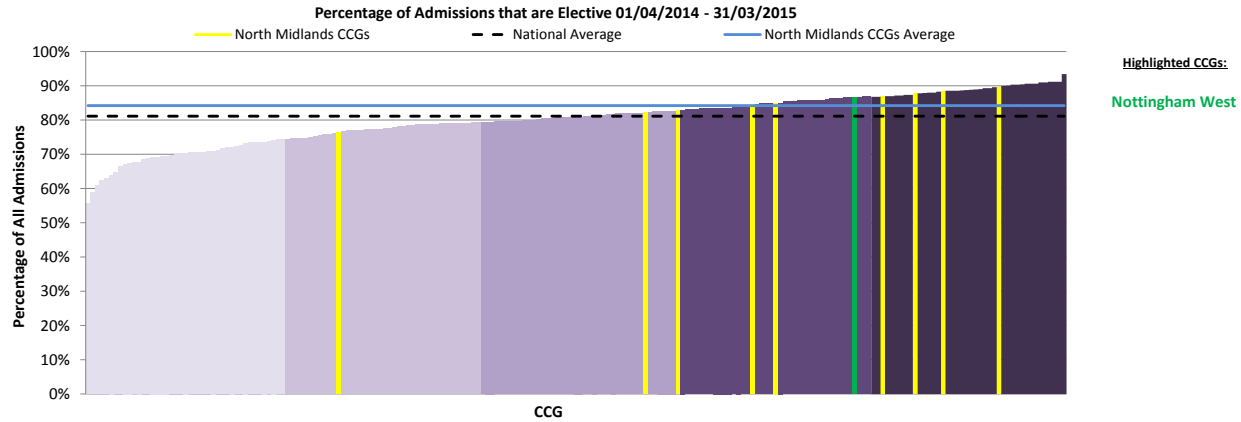
Southern Derbyshire	53.4%	Rushcliffe	59.3%
Newark & Sherwood	55.0%	Nottingham City	60.5%
Mansfield & Ashfield	55.0%	Nottingham North & East	62.0%
Erewash	57.9%	North Derbyshire	62.1%
Nottingham West	59.1%	Hardwick	64.3%
North Midlands CCGs	**58.6%**	**England**	**59.8%**



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

Southern Derbyshire	76.4%	Nottingham West	86.7%
North Derbyshire	82.1%	Newark & Sherwood	86.9%
Hardwick	82.8%	Nottingham City	87.7%
Erewash	84.2%	Nottingham North & East	88.4%
Mansfield & Ashfield	85.0%	Rushcliffe	89.6%
North Midlands CCGs	**84.2%**	**England**	**81.1%**



What is the data telling us?

In the latest 12 month period there were almost 300,000 admissions for back and radicular pain in England, with 13,013 (4.5%) of these from patients registered within the North Midlands CCGs included in this report.

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 North Midlands CCGs the proportion of admissions for back pain ranges from 43% to 64%.

Approximately 81% of back and radicular pain admissions are elective, with the North Midlands overall having a higher proportion (84%). At CCG level in the North Midlands region the proportion of elective admissions ranges from 76% in Southern Derbyshire to 90% in Rushcliffe.

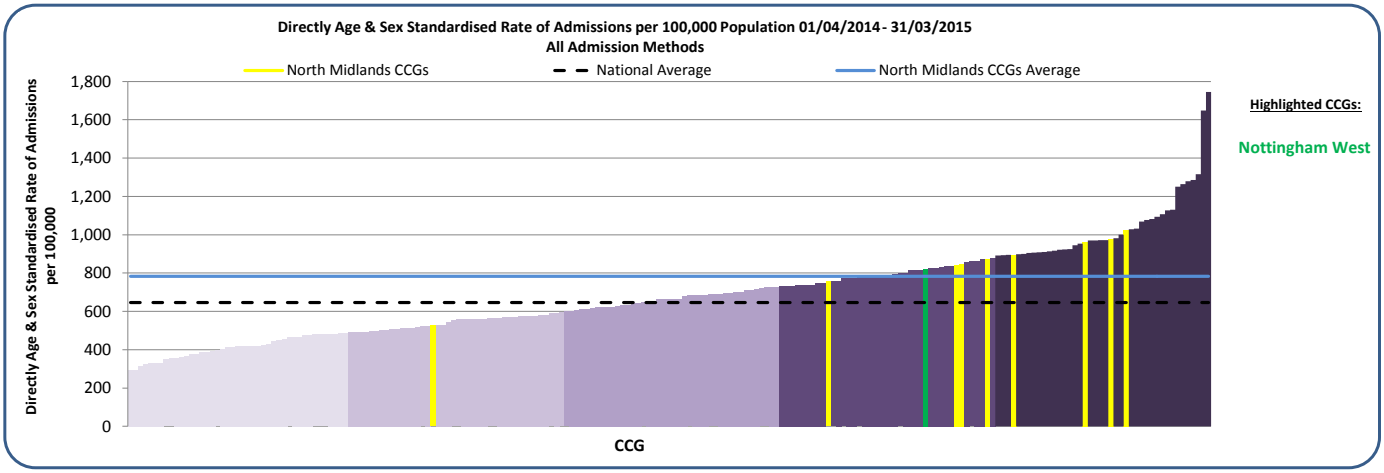
Clinical Commissioning Group (CCG) activity

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

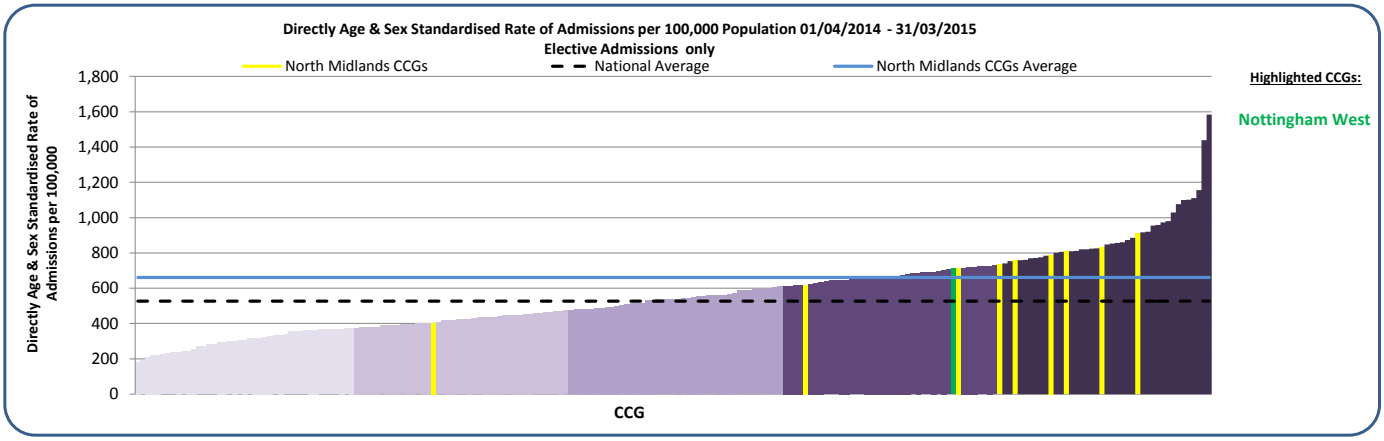
a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
Nottingham City	1026.1	911.4	114.5	Rushcliffe	847.1	756.6	90.5
Hardwick	977.2	808.5	159.2	Mansfield & Ashfield	841.8	713.4	124.2
Newark & Sherwood	961.1	831.7	118.8	Nottingham West	821.5	712.4	108.2
Nottingham North & East	894.9	788.4	105.6	North Derbyshire	756.7	618.8	131.1
Erewash	875.6	735.3	136.2	Southern Derbyshire	526.7	403.8	119.4
North Midlands CCGs	783.0	660.4	118.7	England	645.6	526.5	115.4

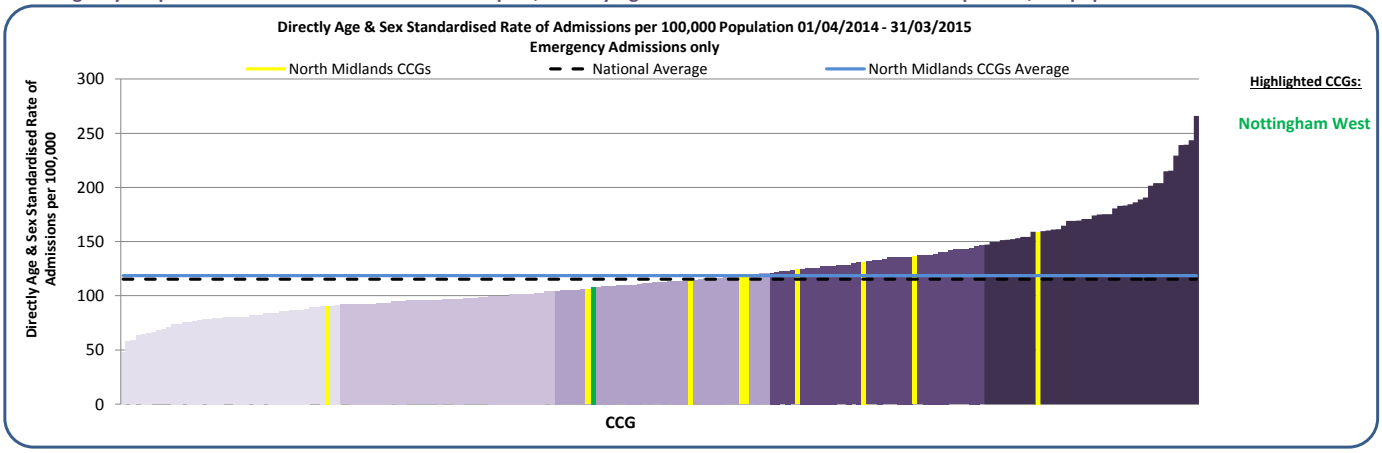
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



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?

There is some variation in elective admission rates across the CCGs within North Midlands but the majority of CCGs are in the highest two quintiles nationally. Only one CCG below the national average (Southern Derbyshire CCG) and the highest CCG for the region is Nottingham City CCG. In contrast, for emergency admissions there is wide variation across the CCGs in the region, ranging from Rushcliffe CCG in the lowest quintile nationally to Hardwick CCG in the highest quintile nationally.

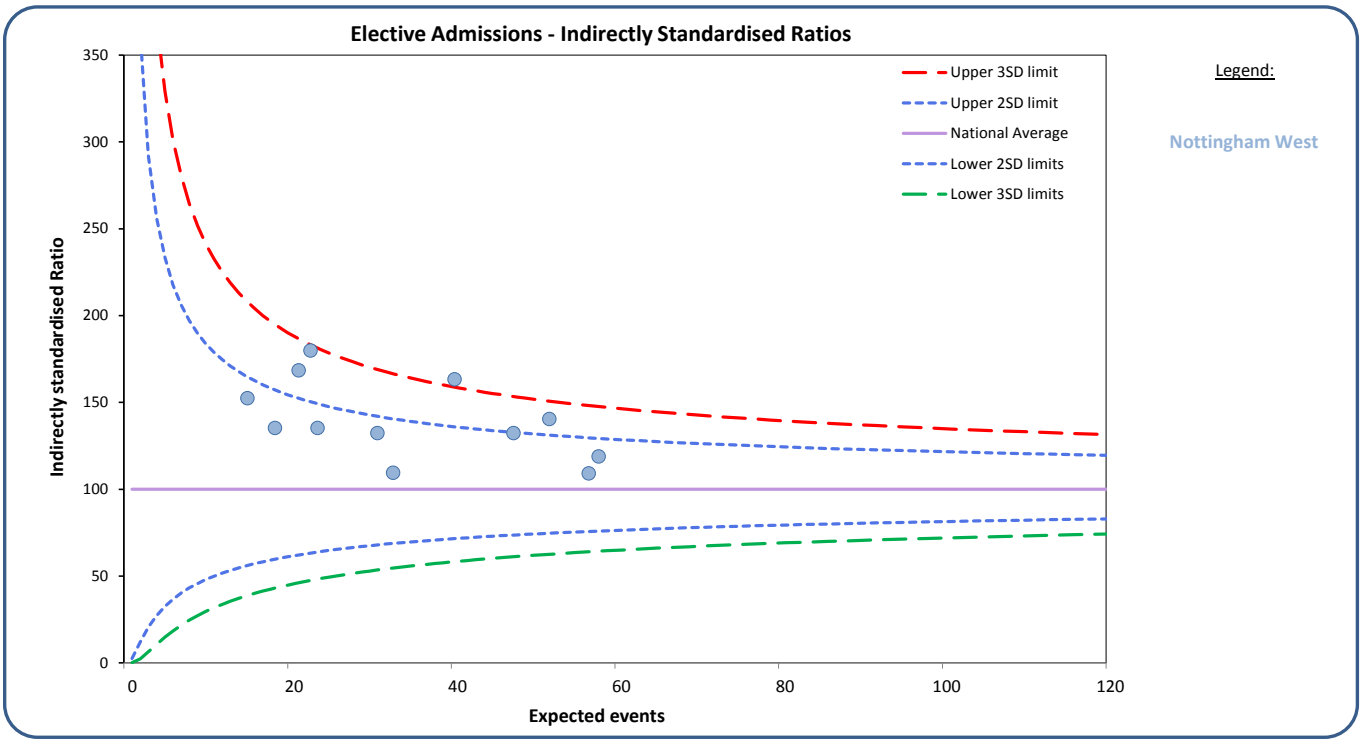
Clinical Commissioning Group (CCG) activity - GP practice level

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

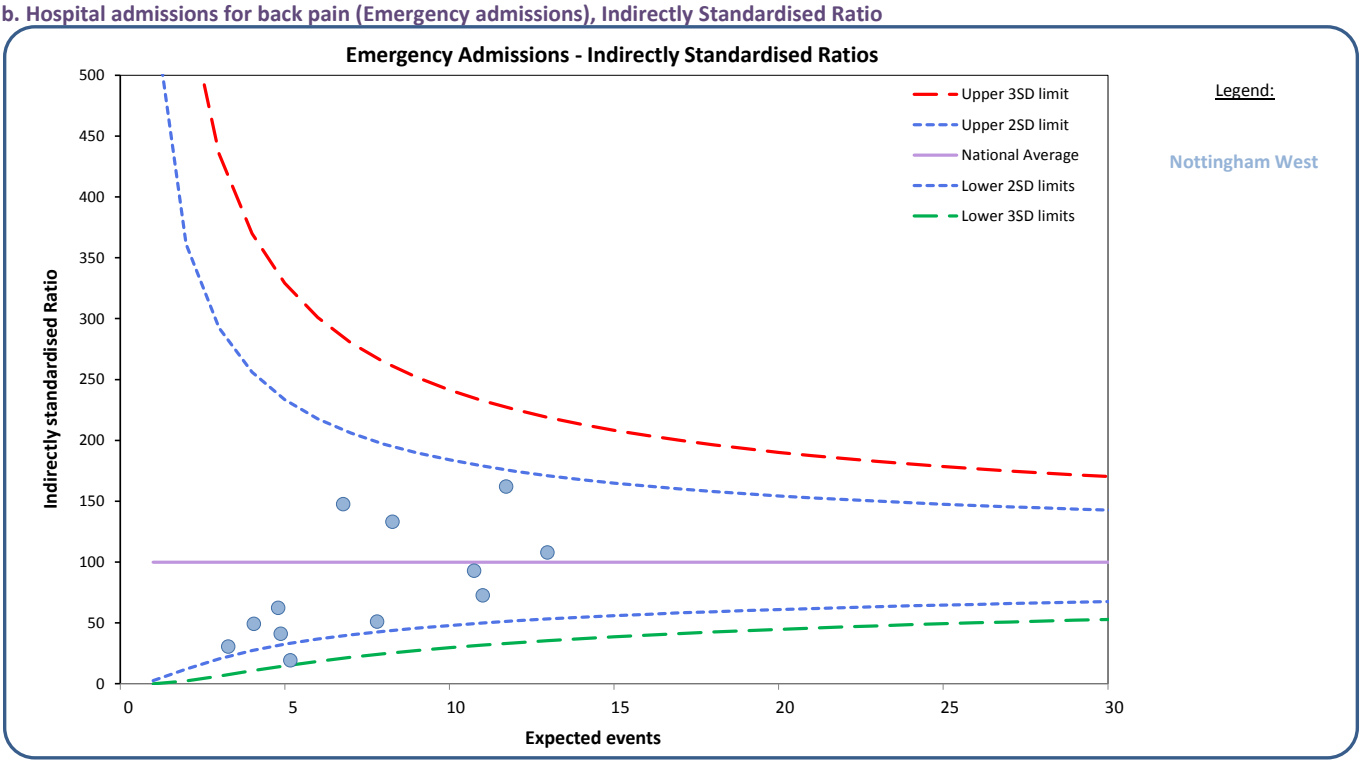
Each symbol represents one GP practice

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

Nottingham West



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

Nottingham West

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.

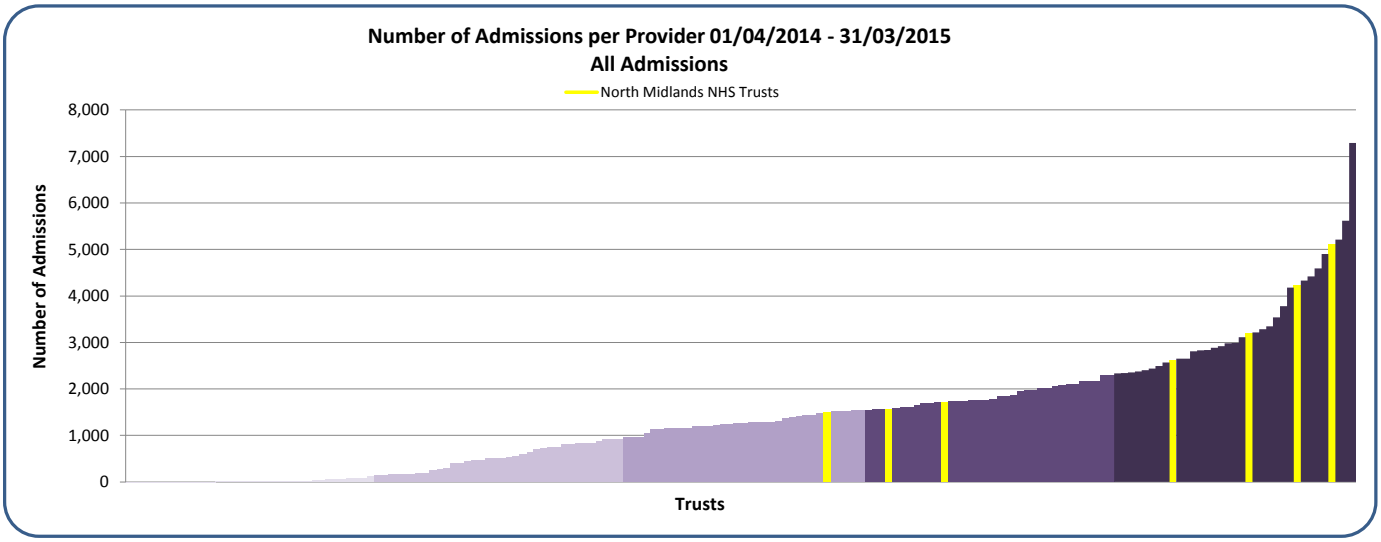
				Elective			Emergency		
Practice Code	**Practice Name**	**CCG**	**Population 15+**	**Observed**	**Expected**	**Ratio**	**Observed**	**Expected**	**Ratio**
C84002	Church Walk Surgery	04M	9,888	62	56.78	109.19	19	11.72	162.06
C84003	West End Surgery	04M	4,510	32	23.64	135.37	<6	5.16	19.36
C84030	The Oaks Medical Centre	04M	6,880	36	32.91	109.41	<6	7.80	51.26
C84032	Church Street Medical Ctr	04M	7,138	66	40.41	163.31	11	8.26	133.10
C84042	Saxon Cross Surgery	04M	6,037	41	30.97	132.41	10	6.77	147.64
C84065	Abbey Medical Centre	04M	4,178	36	21.36	168.53	<6	4.87	41.04
C84080	The Manor Surgery	04M	9,418	63	47.59	132.38	10	10.75	93.03
C84107	The Linden Medical Group	04M	9,107	73	51.96	140.50	8	11.01	72.66
C84112	Bramcote Surgery	04M	2,691	23	15.08	152.47	<6	3.28	30.50
C84120	The Valley Surgery	04M	11,324	69	57.99	118.98	14	12.97	107.91
C84624	Hama Medical Centre	04M	4,409	41	22.79	179.90	<6	4.80	62.52
C84705	Hickings Lane Medical Ctr	04M	3,750	25	18.47	135.35	<6	4.06	49.26

Hospital Trust activity

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

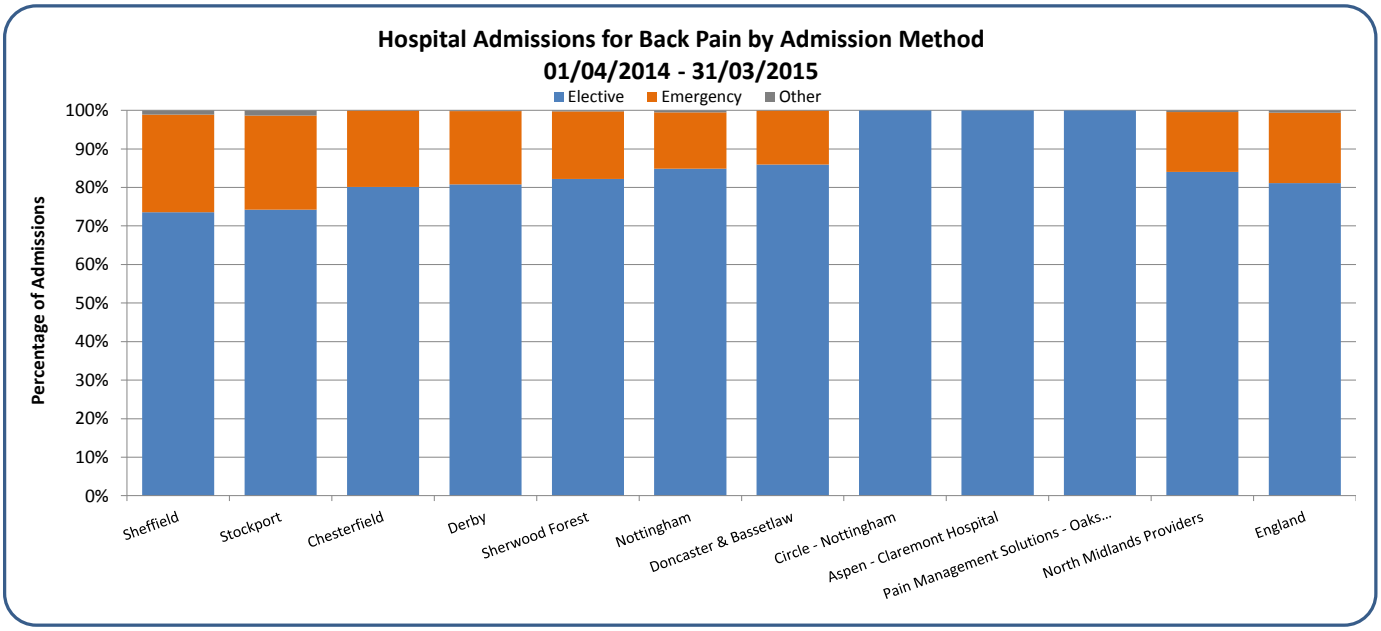
a. Number of hospital admissions for back pain (all admission methods, NHS Trusts only)

Nottingham	5,112	Stockport	1,717
Doncaster & Bassetlaw	4,221	Sherwood Forest	1,565
Derby	3,185	Chesterfield	1,498
Sheffield	2,625		
North Midlands NHS Trusts	19,923	England	251,444



b. Number of admissions per hospital Trust, by admission method

(North Midlands 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 four the seven NHS Trusts where patients from North Midlands CCGs are admitted are in the highest quintile nationally. Doncaster & Bassetlaw, Sheffield and Stockport Trusts are all located outside of the North Midlands CCG region.

The proportion of hospital activity for back pain which is classed as elective care is slightly higher for the North Midlands CCGs than England overall, however at NHS Trust level the proportion varies between 75% at Sheffield to 86% at Doncaster & Bassetlaw Trust.

All NHS activity at Independent Sector 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 specialty
(North Midlands Providers only)

Provider Name	Pain Management & Anaesthetics	Trauma & Orthopaedics	Spinal Surgery Service	Interventional Radiology	Neurosurgery	Other Functions	Total
Doncaster & Bassetlaw	2,239	1,352	-	-	-	37	**3,628**
Sheffield	622	28	805	-	440	37	**1,932**
Stockport	866	372	18	-	-	19	**1,275**
Chesterfield	1,196	-	-	-	-	<6	**1,196**
Nottingham	2,338	<6	1,881	-	103	11	**4,333**
Sherwood Forest	981	294	-	-	-	11	**1,286**
Derby	394	2,159	<6	-	-	15	**2,568**
Pain Management Solutions - Oaks Park	766	-	-	-	-	<6	**766**
Aspen - Claremont Hospital	52	446	-	-	546	-	**1,044**
Circle - Nottingham	1,365	6	-	-	-	12	**1,383**
Total	**10,819**	**4,657**	**2,704**	**-**	**1,089**	**142**	**19,411**

d. Elective admissions for injections for back and radicular pain, by injection type and treatment specialty *(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 specialty code indicated within the hospital data varies by hospital trust. Overall the most common specialties are Trauma and Orthopaedics and Pain Management/Anaesthetics, however for Sheffield and Nottingham Trusts the highest volume of activity is recorded within Spinal Surgery Service. Sheffield, Nottingham and the Independent Sector Provider, Aspen - Claremont Hospital also have notable levels of admissions to 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.

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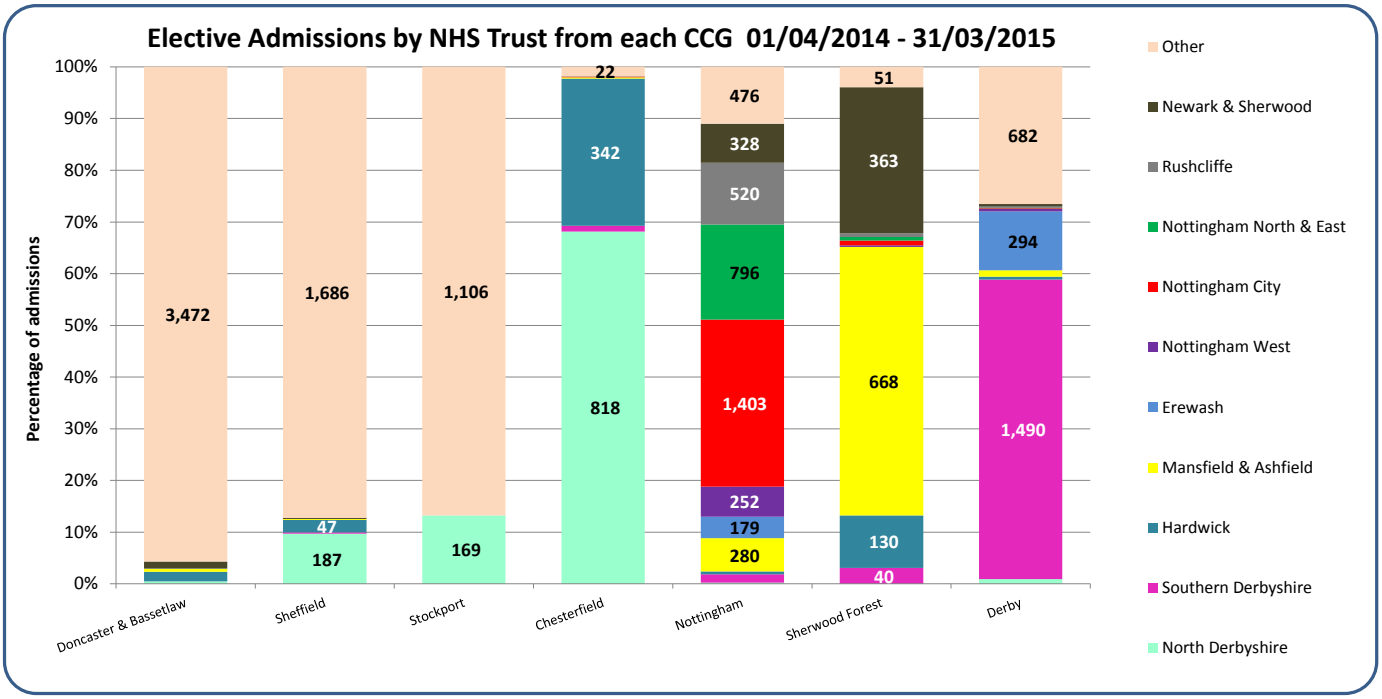
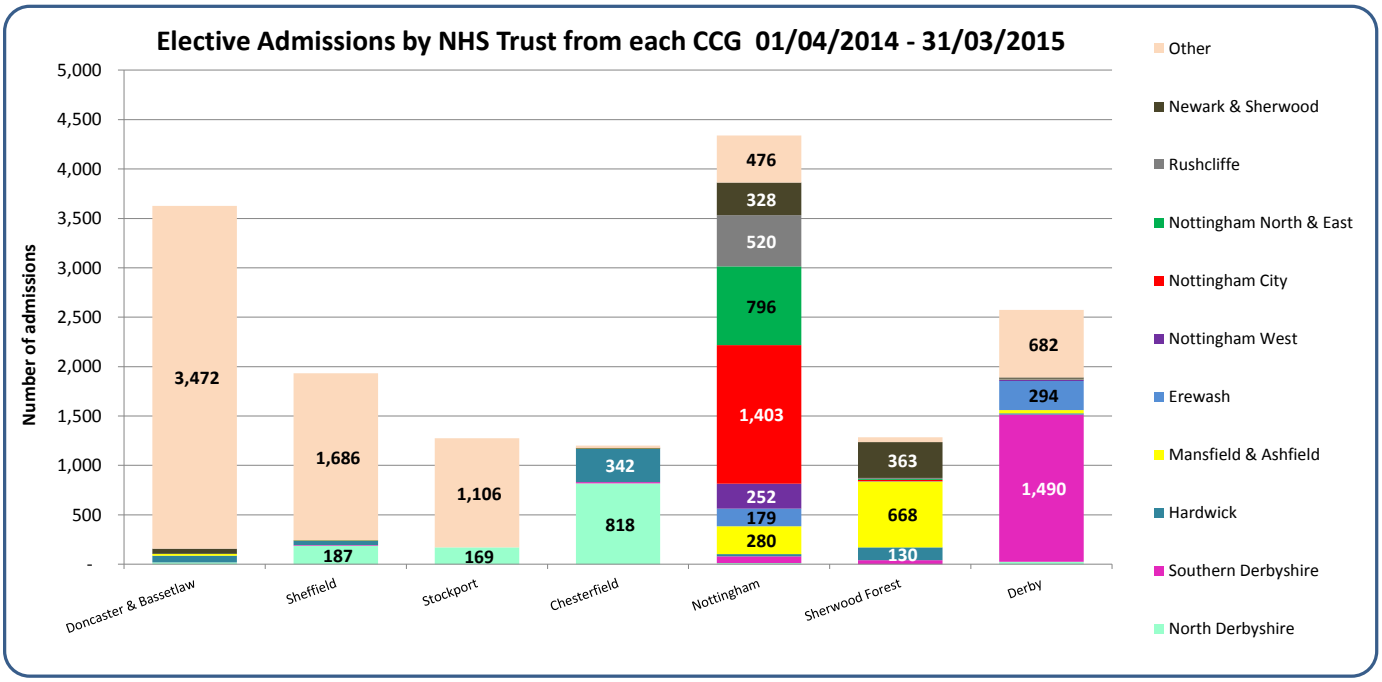
Hospital Trust activity from CCGs

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.

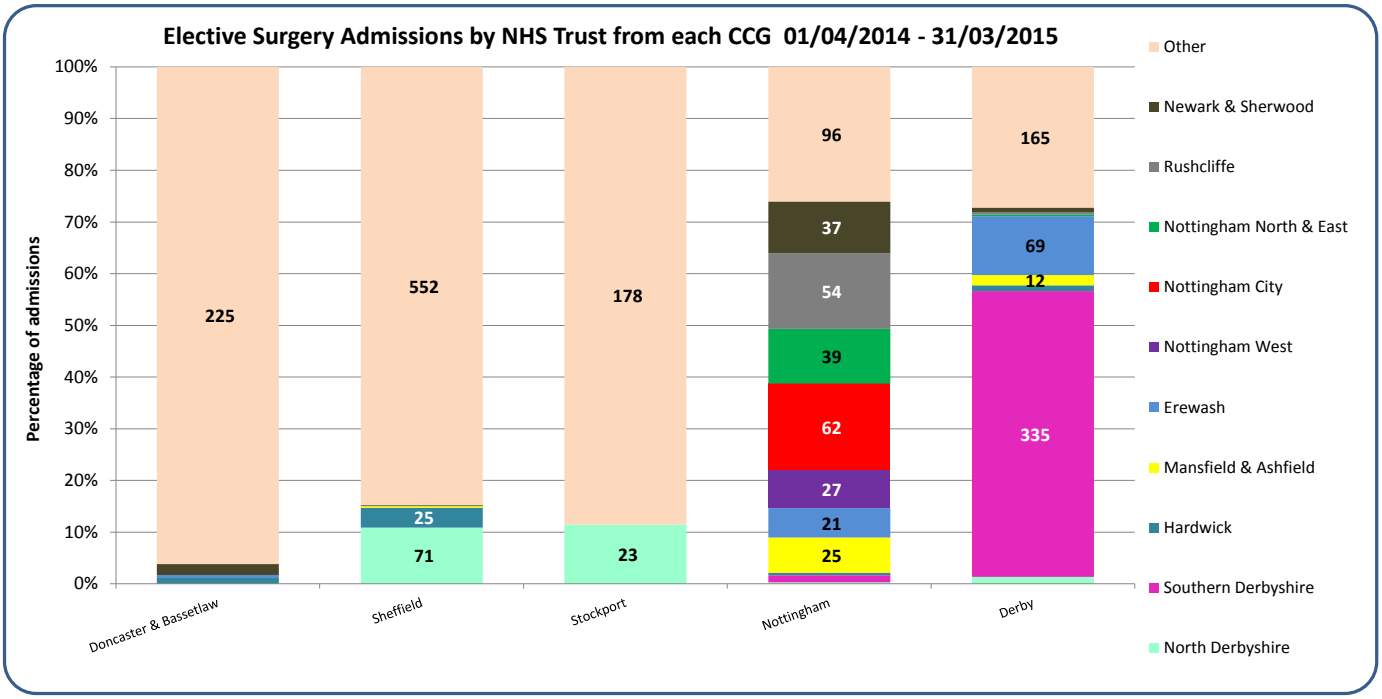
Nottingham Trust is the highest volume provider and admits patients from all of the North Midlands CCGs as well as admitting patients from CCGs outside of this region. Some of the large volume providers (notably Sheffield and Doncaster & Bassetlaw Trusts) are located outside of the North Midlands CCGs and have higher levels of activity coming from CCGs outside of the region.

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

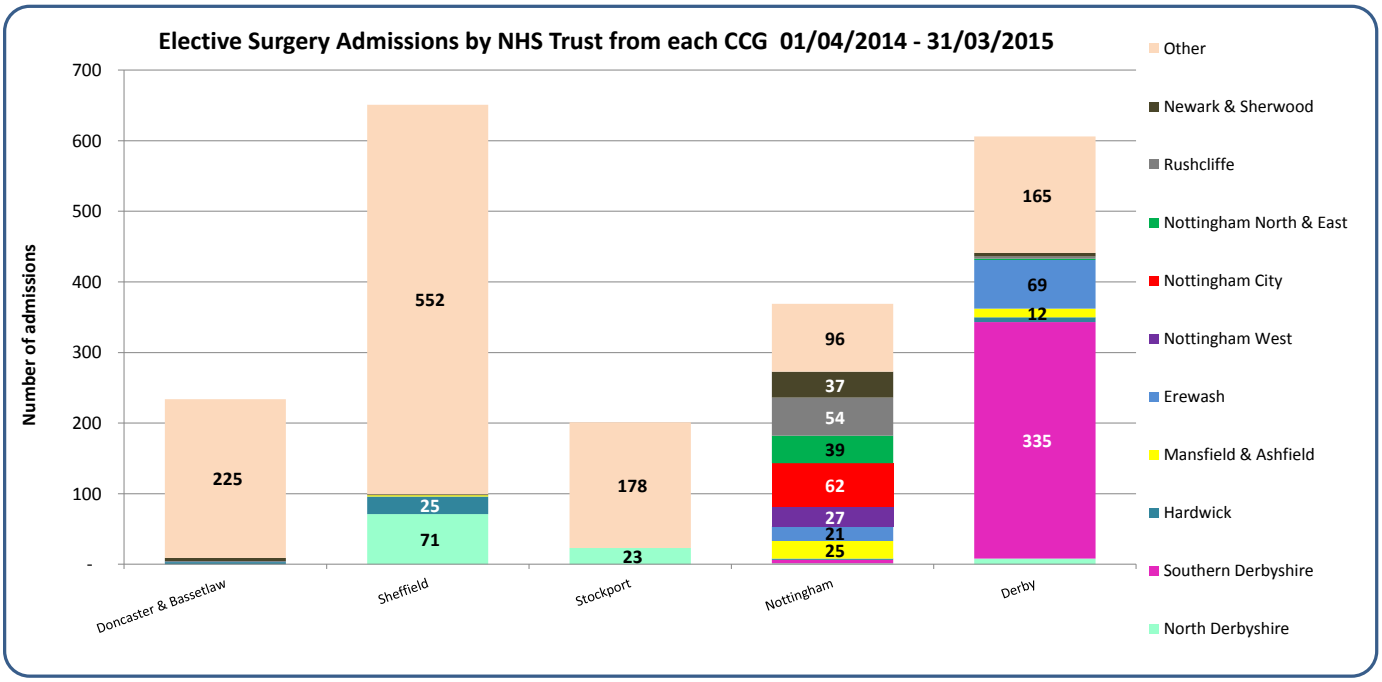
Hospital Trust activity from CCGs

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 surgery for back and radicular pain.

Derby Trust has a higher volume of admissions for spinal surgery than Nottingham Trust. In contrast to Nottingham Trust that admits patients from all of the North Midlands CCGs as well as admitting patients from CCGs outside of this region, Derby Trust predominantly admits patients from Southern Derbyshire CCG where it is located. Sheffield Trusts is a large volume provider located outside of the North Midlands CCGs region and has higher levels of activity coming from the CCGs outside of this region.

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

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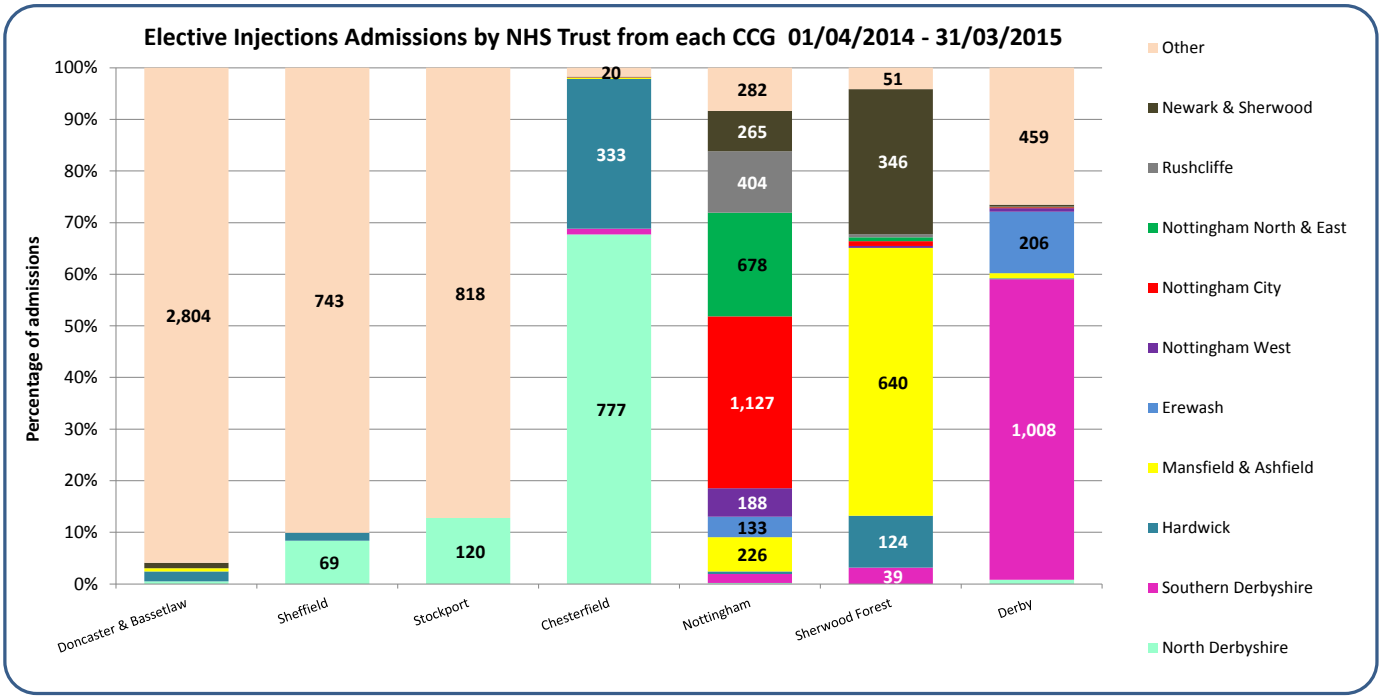
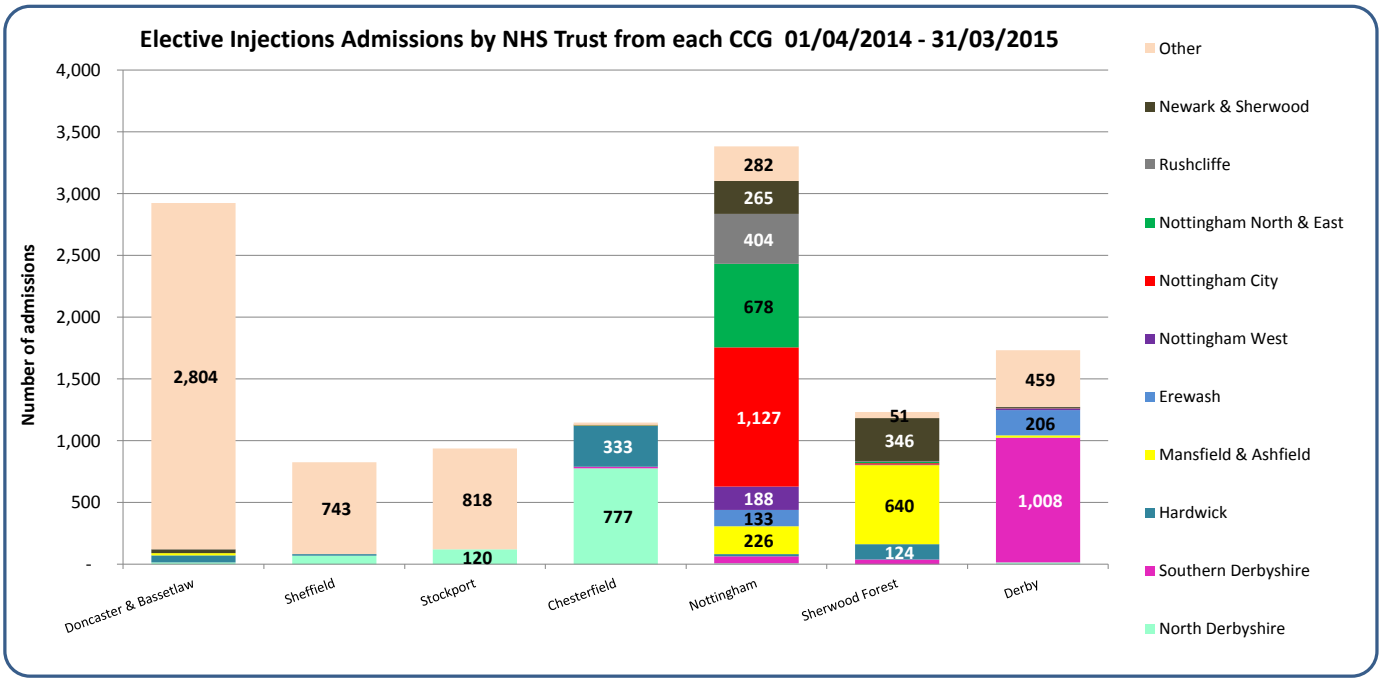
Hospital Trust activity from CCGs

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.

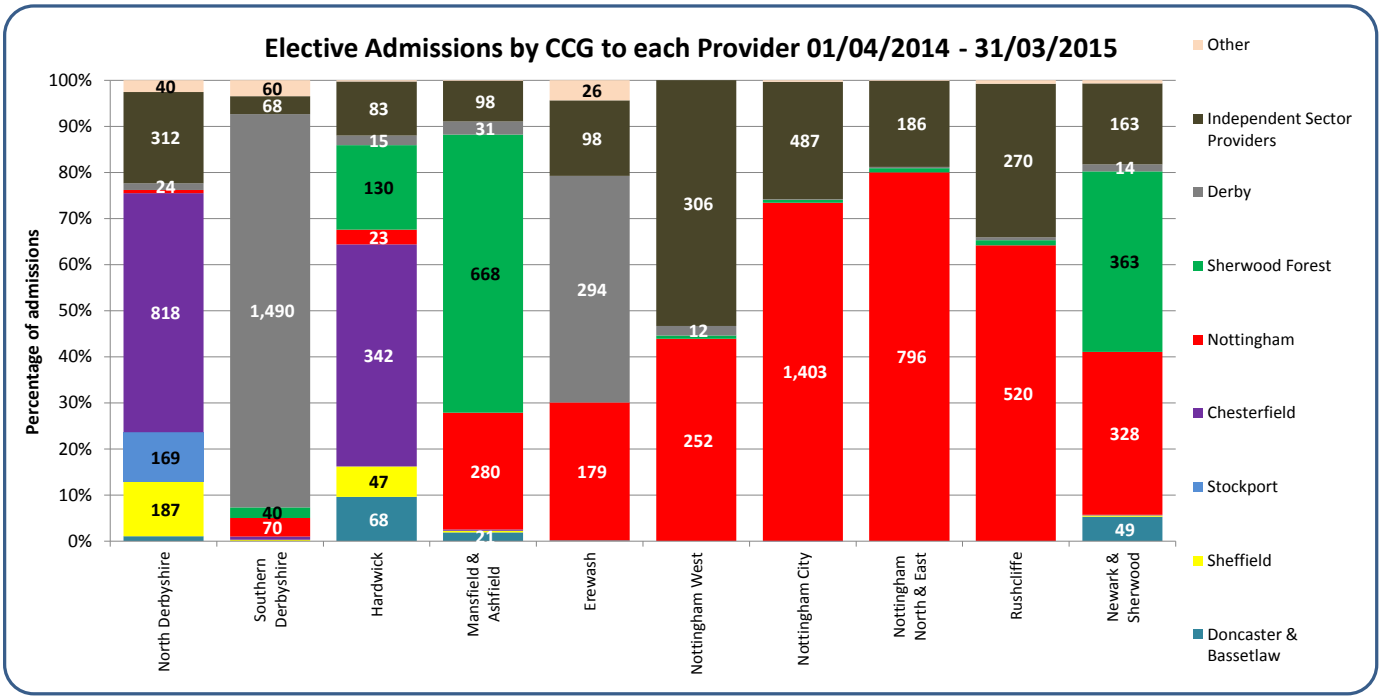
Nottingham Trust is the highest volume provider and admits patients from all of the North Midlands CCGs as well as admitting patients from CCGs outside of this region. Doncaster & Bassetlaw Trust, a large volume provider is located outside of the North Midlands CCGs and has higher levels of activity coming from CCGs outside of the region.

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

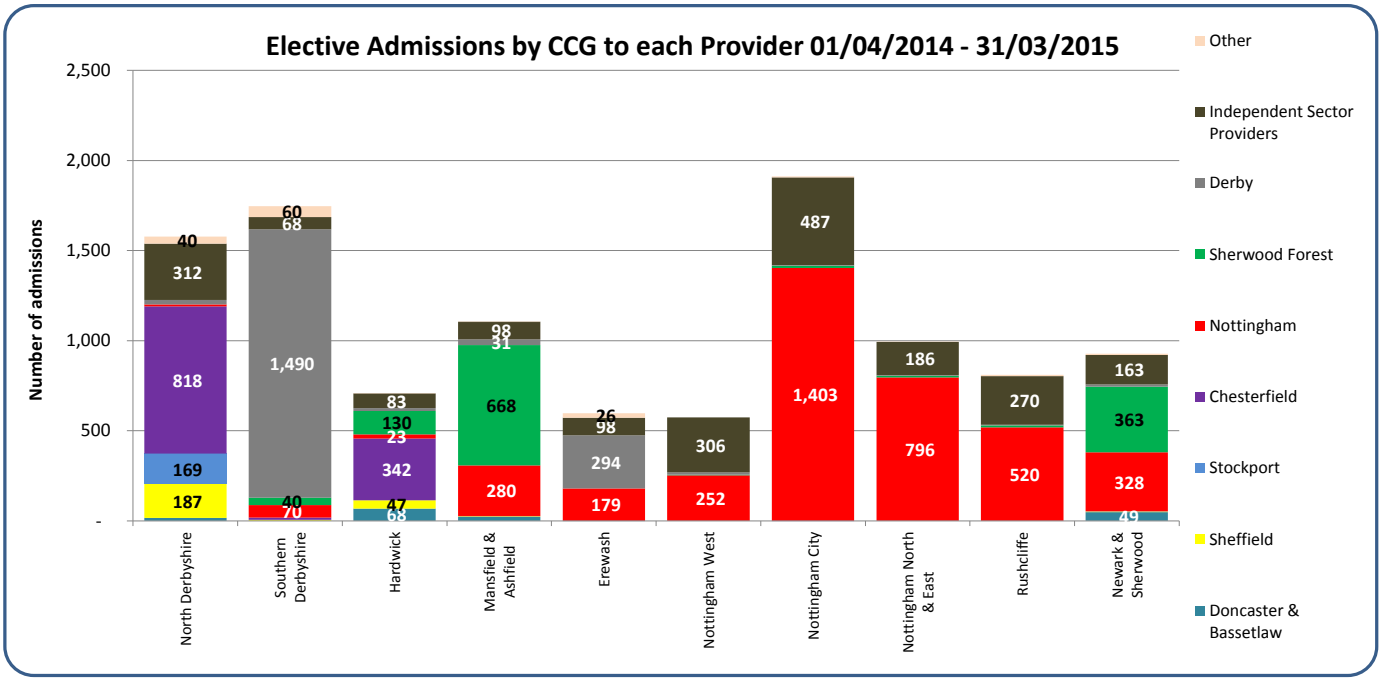
CCG activity to Hospital Trust

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 the number of hospital trusts that their patients are admitted to.

Nottingham City CCG has the highest level of activity for the North Midlands region and patients are admitted mainly to Nottingham Trust but there is also high use of Independent Sector Providers (487 admissions).

Nottingham West CCG uses Independent Sector providers for over 50% of their admissions.

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

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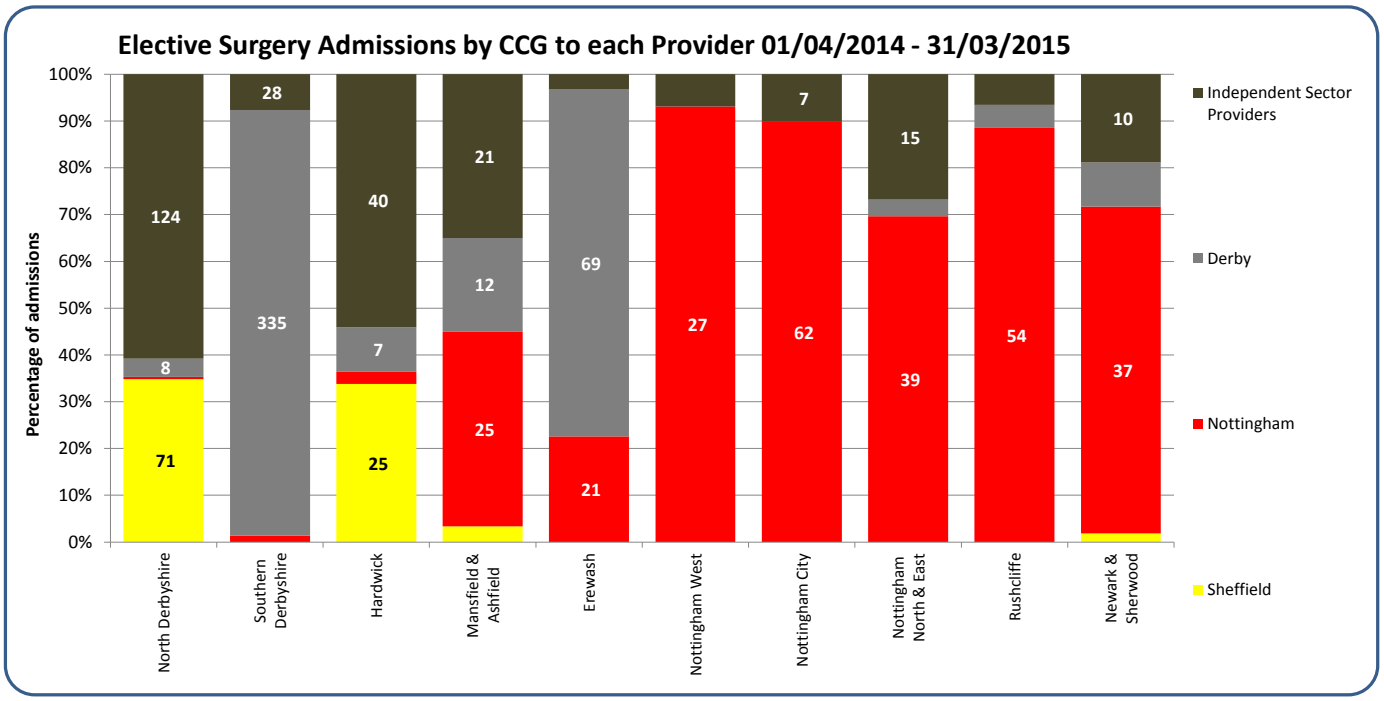
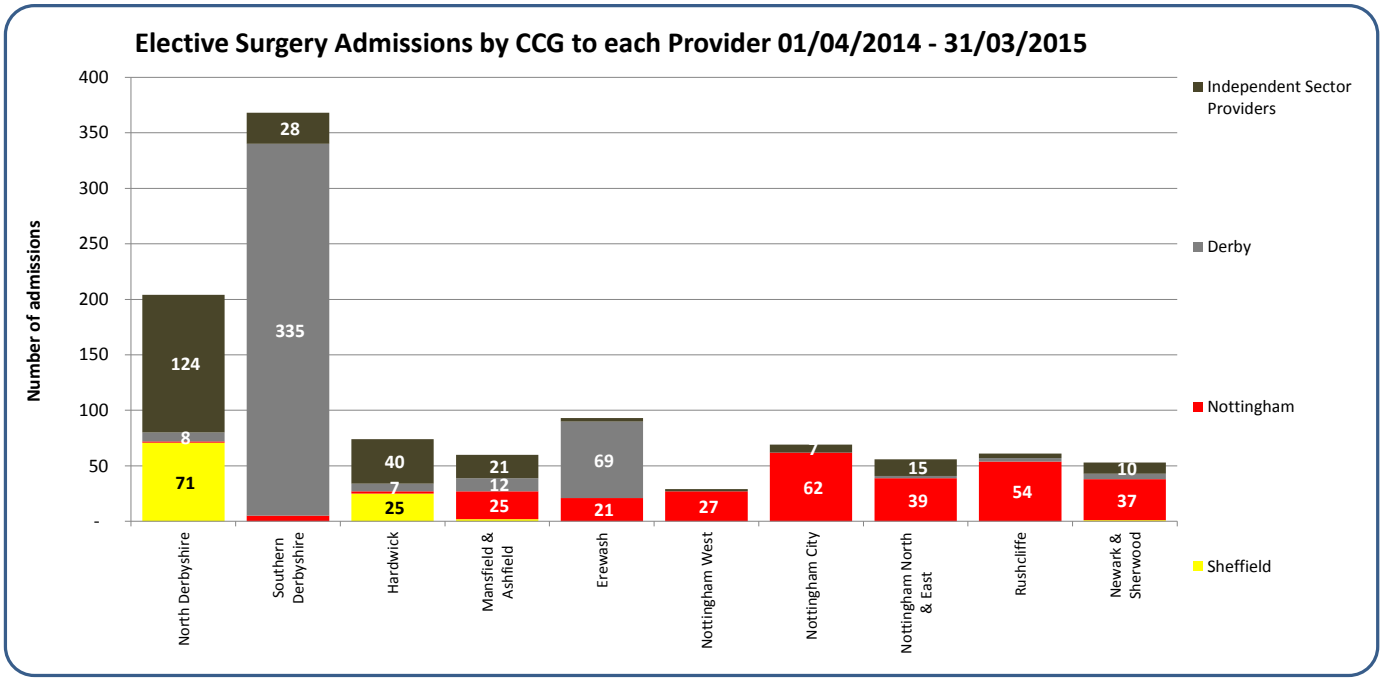
CCG activity to Hospital Trust

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.

Southern Derbyshire CCG has a notably higher level of spinal surgery activity for the North Midlands region and patients are admitted mainly to Derby Trust but there is also some use of Independent Sector Providers (28 admissions).

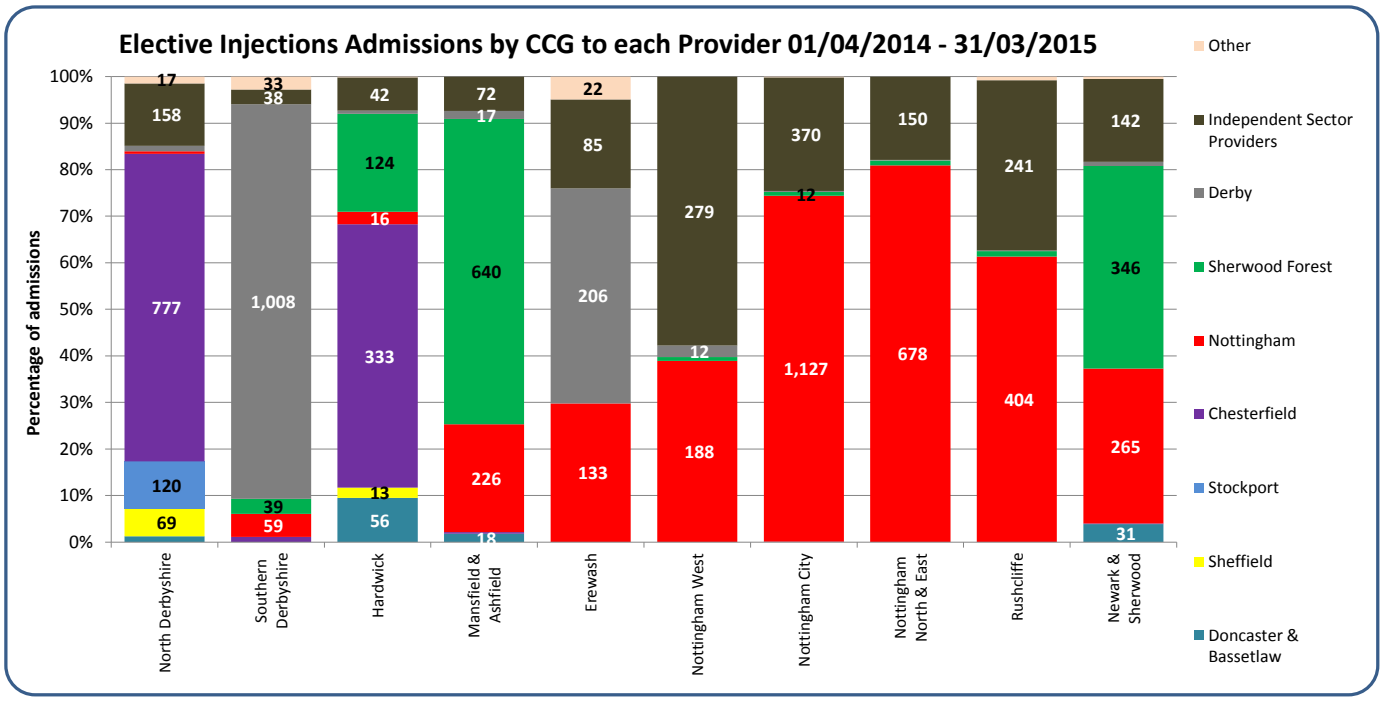
North Derbyshire CCG uses Independent Sector providers for over 60% of their admissions for spinal surgery.

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

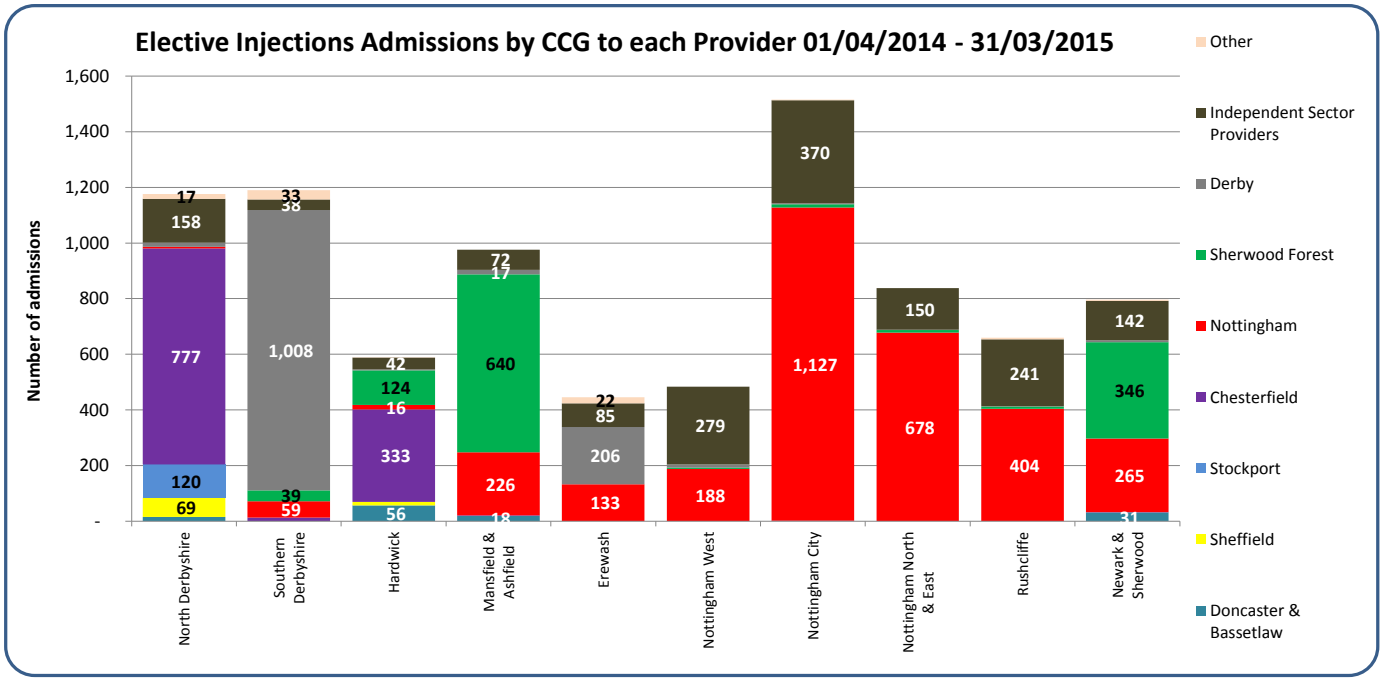
CCG activity to Hospital Trust

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 the number of hospital trusts that their patients are admitted to.

Nottingham City CCG has the highest level of activity for the North Midlands region for injections and patients are admitted mainly to Nottingham Trust but there is also high use of Independent Sector Providers (370 admissions).

Nottingham West CCG uses Independent Sector providers for almost 60% of their admissions.

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

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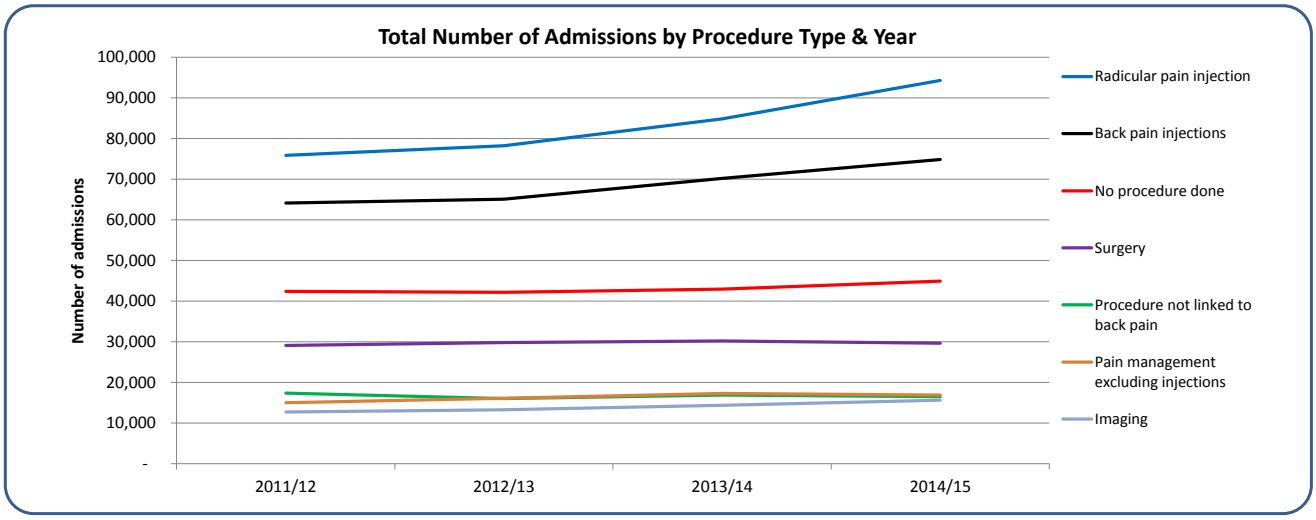
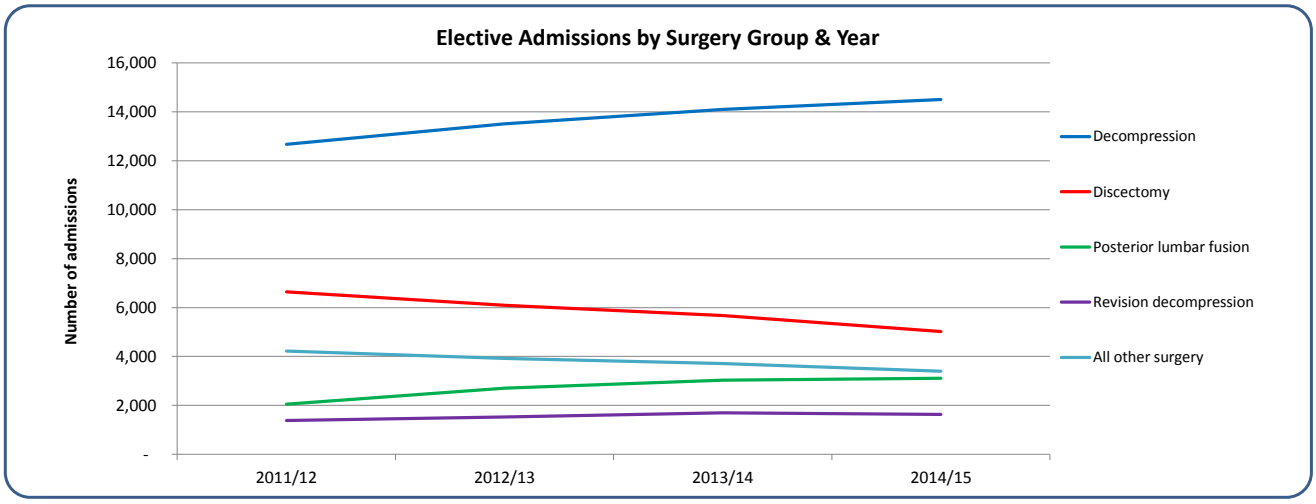
Hospital Trust activity (national level)

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

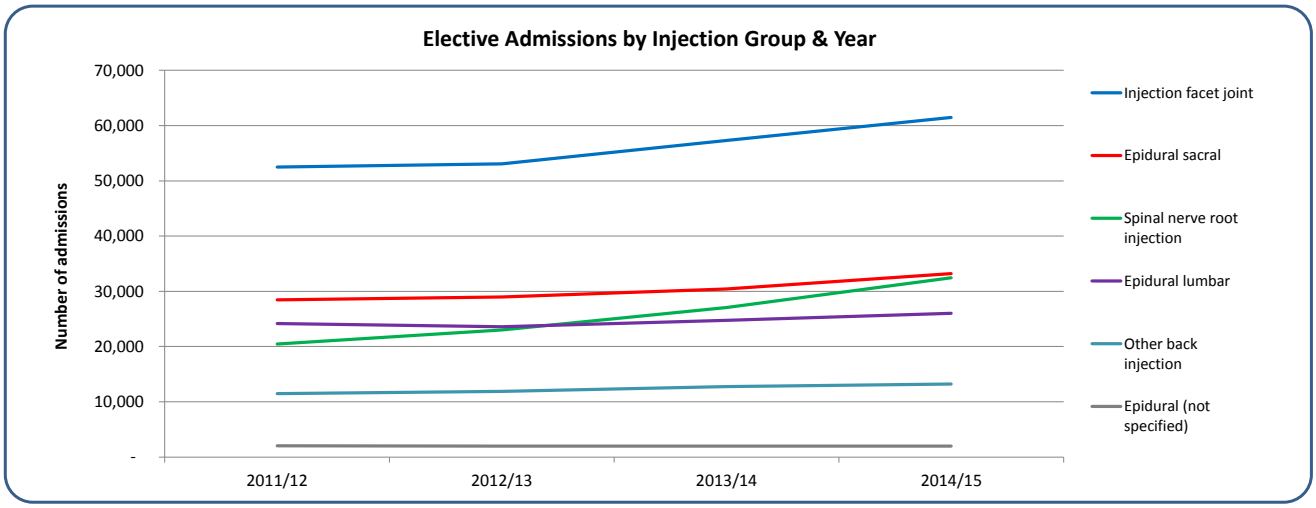
a. Hospital admissions by procedure type over time (all admission types)



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

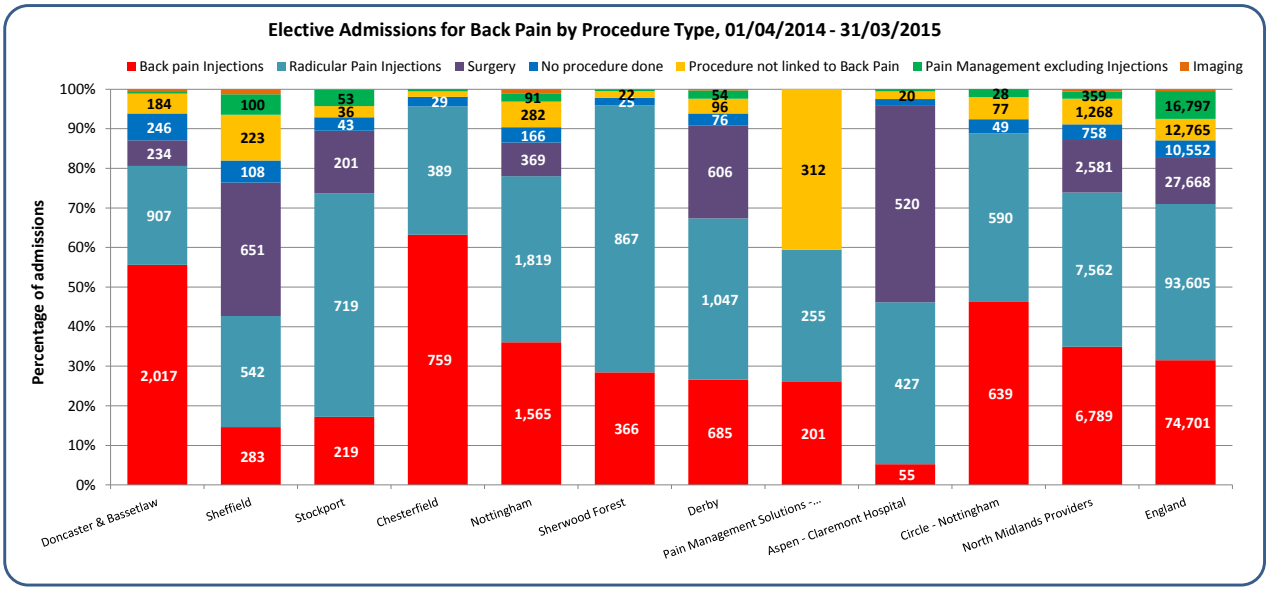
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

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%**

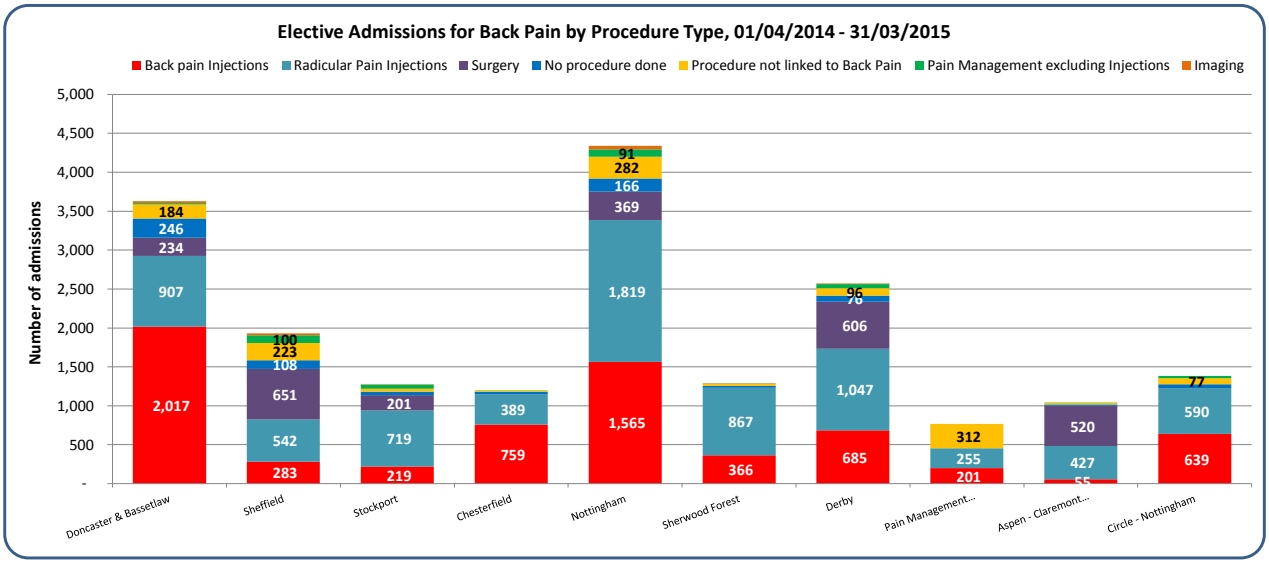
b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity)

(North Midlands Providers only)



c. Number of elective admissions per hospital Trust, by procedure type (actual activity)

(North Midlands 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).

On average, there is a higher proportion of admissions for injections across providers that the North Midlands CCGs use. Four of the the NHSTrusts have a higher proportion of elective activity for injections than the England rate and it is possible that the variation may be even greater 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).

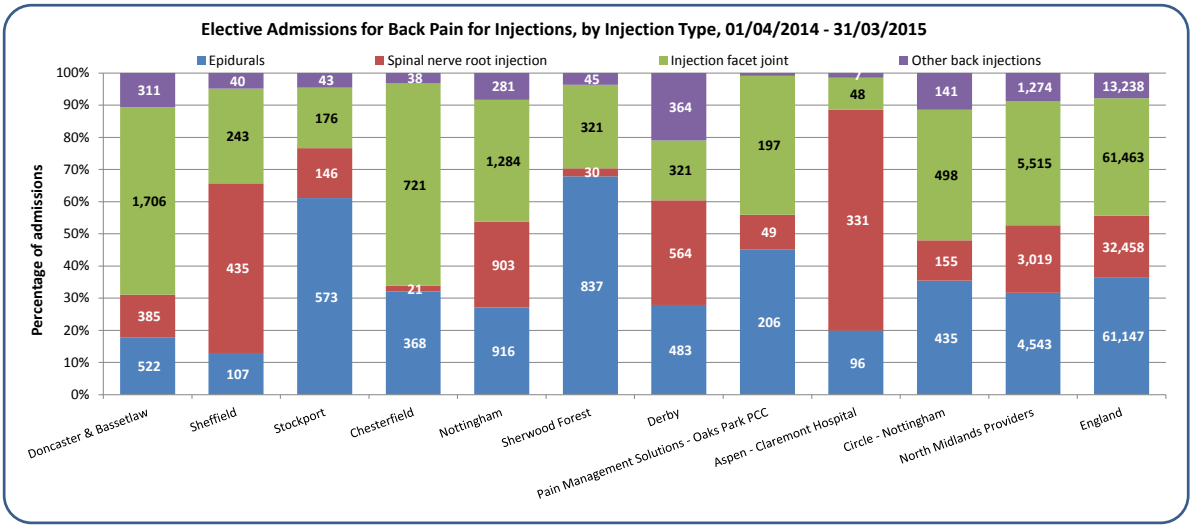
The data is shown in two ways, indicating both the proportion and amount of activity relating to each procedure.

Hospital Trust activity

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

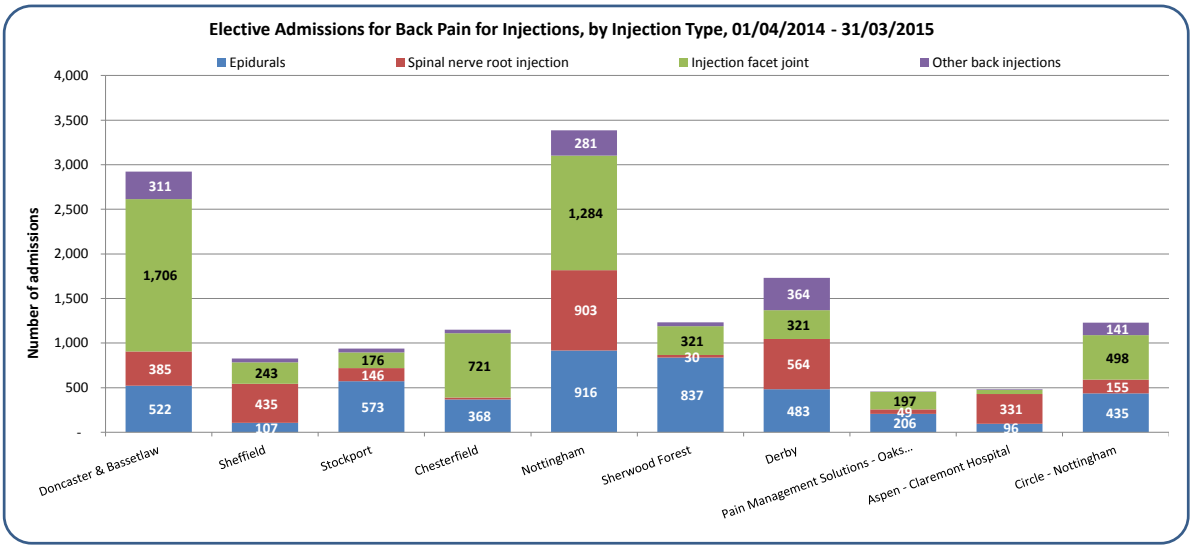
d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity)

(North Midlands Providers only)

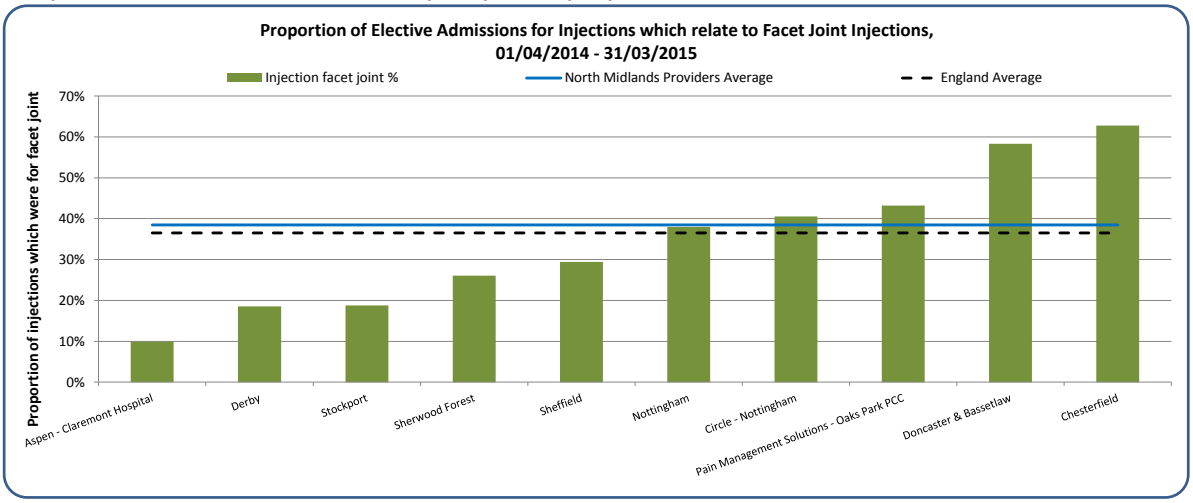


e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity)

(North Midlands Providers only)



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



What is the data telling us?

Injections for radicular pain (i.e. epidurals and spinal nerve root joint injections) are those most frequently done within the North Midlands region, constituting around 53% of all injection activity compared to 57% across England as a whole.

Nottingham and Doncaster & Bassetlaw Trusts have the highest activity for injections.

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

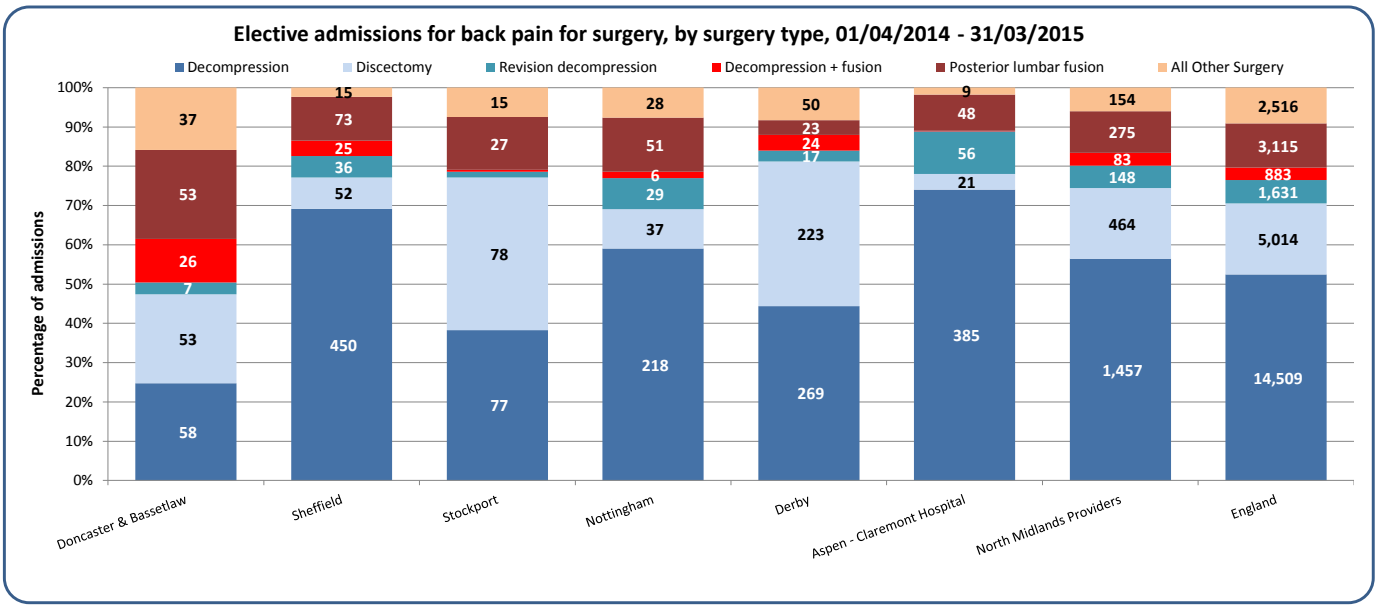
The proportion of facet joint injections done at Trust level ranges from 10% to 63% compared to the England figure of 37%.

Hospital Trust activity

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

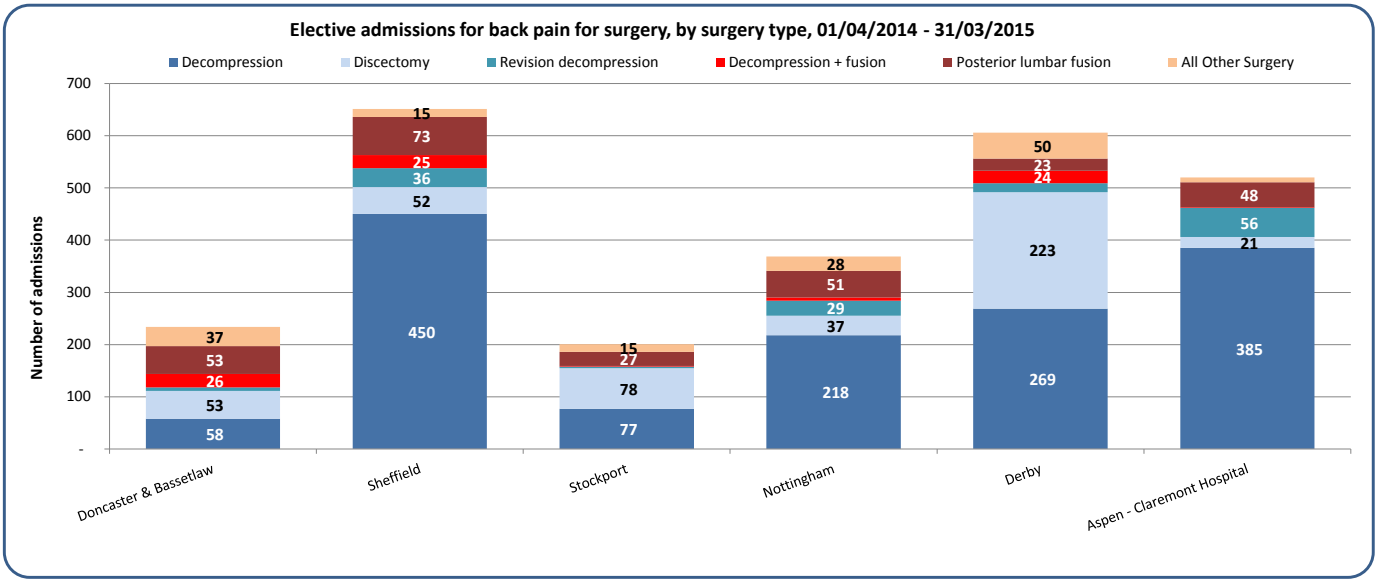
g. Number of elective admissions for surgery per hospital Trust, by surgery type (percentage of activity)

(North Midlands Providers only)



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

(North Midlands 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 providers who admit patients from the North Midlands CCGs.

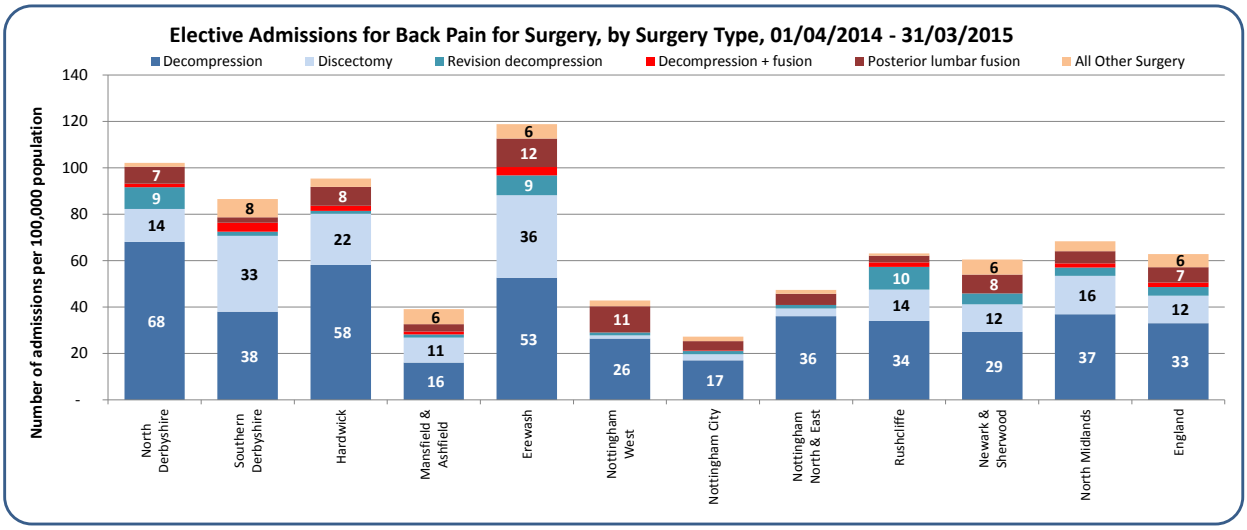
These providers combined do a slightly higher proportion of decompressions compared to England but there are wide variations at Trust level. Sheffield and Derby Trusts are the highest volume providers but Sheffield does twice as many fusions and more frequently does decompressions rather than discectomy (1:9 ratio) compared to Derby where there is almost an equal proportion. Although Doncaster & Bassetlaw have a much lower volume of activity overall, they do a higher proportion of fusions that almost equals the number of admissions for fusions at Sheffield Trust.

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

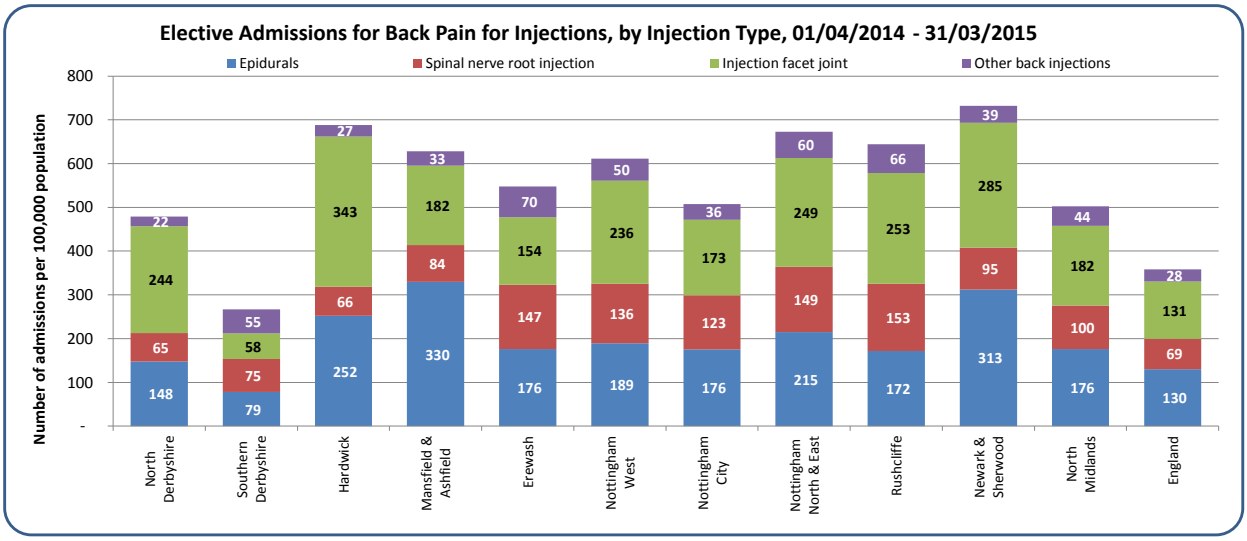
CCG activity by back pain procedure group

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

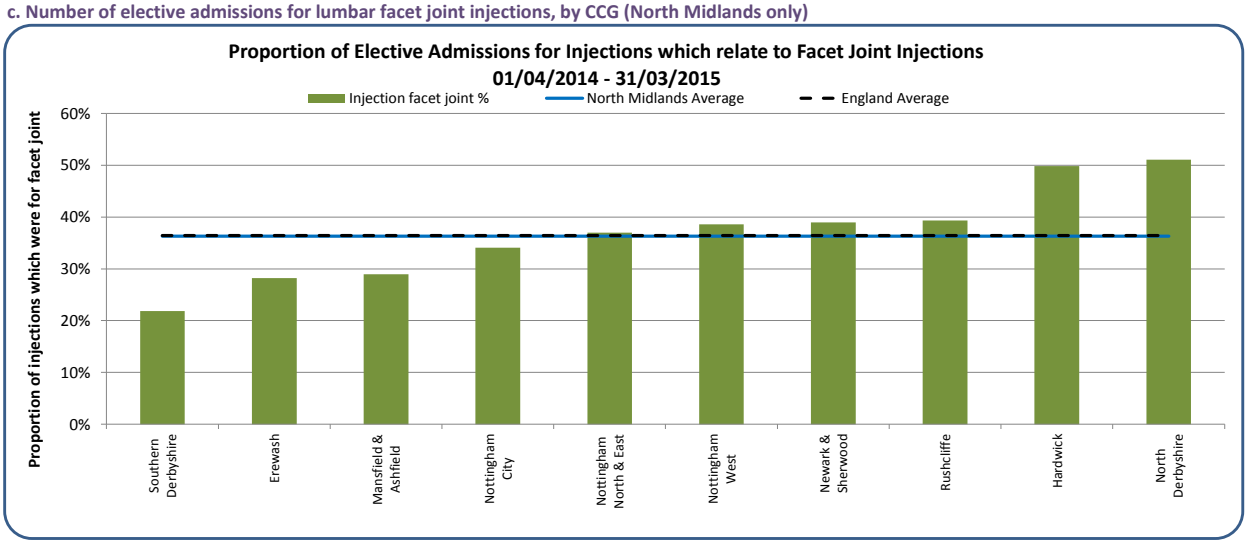
a. Number of elective admissions for surgery per CCG, by surgery type (North Midlands only)



b. Number of elective admissions for injections per CCG, by injection type (North Midlands only)



c. Number of elective admissions for lumbar facet joint injections, by CCG (North Midlands only)



What is the data telling us?

Chart 10a shows the range in the activity rate per 100,000 relating specifically to elective admissions for surgery, by type of surgery, for the South Central CCGs, with chart 9b showing the same for injections.

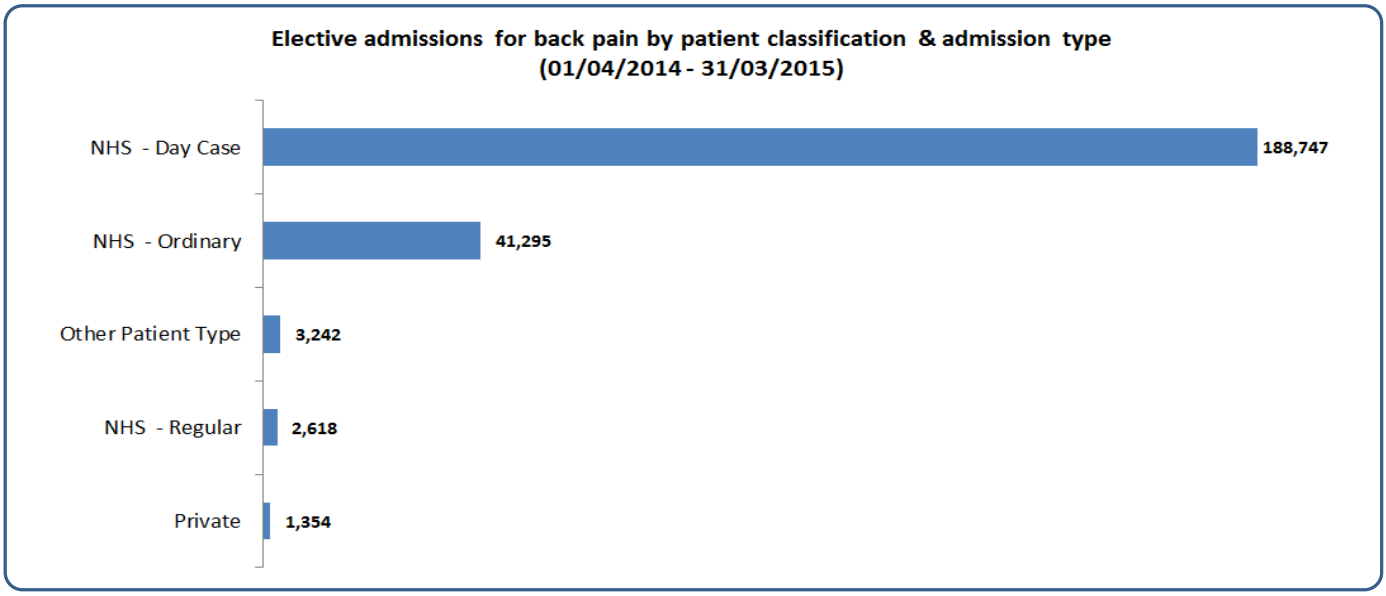
Overall North Midland CCGs have a slightly higher rate per 100,000 for spinal surgery with a much higher rate of injections compared to the England rates. Erewash CCG has the highest rates of surgery and Newark & Sherwood CCG has the highest rates of injections.

All CCGs, except for Southern Derbyshire have higher rates for all types of injections compared to England rates. Proportion of lumbar facet joint injections vary from 22% at Southern Derbyshire CCG to 51% at North Derbyshire CCG.

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

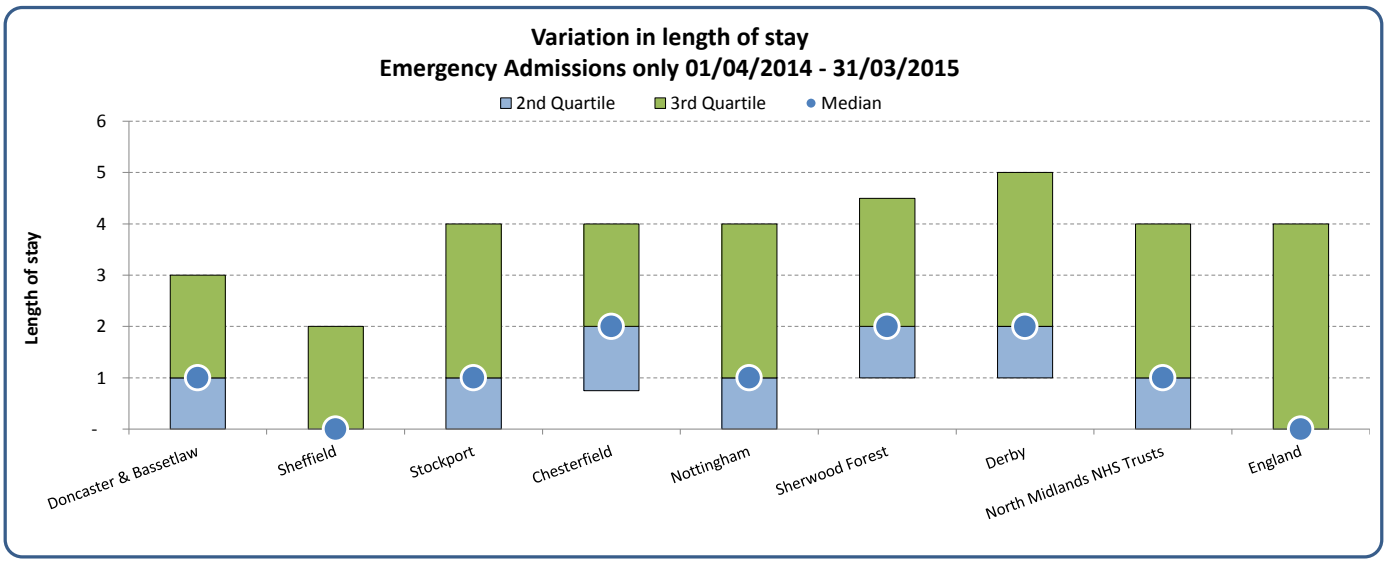


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

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
(North Midlands 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 for the NHS Trust providers who admit patients from the North Midlands CCGs and shows that all Trusts, except Sheffield, have a higher median length of stay (ranging from 1 to 2 days), compared to the England rate of zero days.

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 (North Midlands FTs only)

Provider Name	Elective	Emergency	Other	Total
Nottingham	£ 4,897,379	£ 1,090,109	£ 91,265	**£ 6,078,753**
Sheffield	£ 4,263,895	£ 1,057,587	£ 110,121	**£ 5,431,603**
Derby	£ 3,905,715	£ 912,371	£ 9,428	**£ 4,827,513**
Doncaster & Bassetlaw	£ 3,177,489	£ 573,938	£ 6,169	**£ 3,757,596**
Stockport	£ 1,663,766	£ 485,926	£ 29,062	**£ 2,178,755**
Sherwood Forest	£ 874,197	£ 327,782	£ 27,577	**£ 1,229,556**
Chesterfield	£ 769,254	£ 339,996	£ 2,618	**£ 1,111,868**
Total	**£ 19,551,695**	**£ 4,787,709**	**£ 276,241**	**£ 24,615,644**

b. Total Costs by Procedure Type (North Midlands 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
Nottingham	£ 2,267,213	£ 1,222,173	£ 962,850	£ 480,023	£ 635,300	£ 362,759	£ 148,434	£ -	**£ 6,078,753**
Sheffield	£ 3,340,509	£ 350,217	£ 158,669	£ 378,209	£ 818,503	£ 295,902	£ 89,595	£ -	**£ 5,431,603**
Derby	£ 2,672,159	£ 680,347	£ 369,255	£ 416,685	£ 348,762	£ 313,343	£ 26,963	£ -	**£ 4,827,513**
Doncaster & Bassetlaw	£ 1,285,413	£ 618,589	£ 1,156,259	£ 337,141	£ 177,173	£ 175,610	£ 7,412	£ -	**£ 3,757,596**
Stockport	£ 1,047,519	£ 496,983	£ 126,519	£ 317,220	£ 69,955	£ 88,114	£ 27,628	£ 4,817	**£ 2,178,755**
Sherwood Forest	£ -	£ 635,864	£ 235,350	£ 182,060	£ 64,641	£ 107,867	£ 3,774	£ -	**£ 1,229,556**
Chesterfield	£ -	£ 268,007	£ 493,476	£ 166,482	£ 54,358	£ 125,811	£ 3,734	£ -	**£ 1,111,868**
Total	**£ 10,612,814**	**£ 4,272,180**	**£ 3,502,376**	**£ 2,277,820**	**£ 2,168,692**	**£ 1,469,406**	**£ 307,540**	**£ 4,817**	**£ 24,615,644**

What is the data telling us?

Across all for the NHS Trusts who admitted patients from the North Midlands CCGs in 2014/15 the total cost to commissioners for back and radicular pain admissions was over £24.6 million, with 79% of the costs attributed to elective activity.

The surgery procedures group accounts for almost 43% of the total cost of all procedures, and the cost of injections is an additional 32% of the total.

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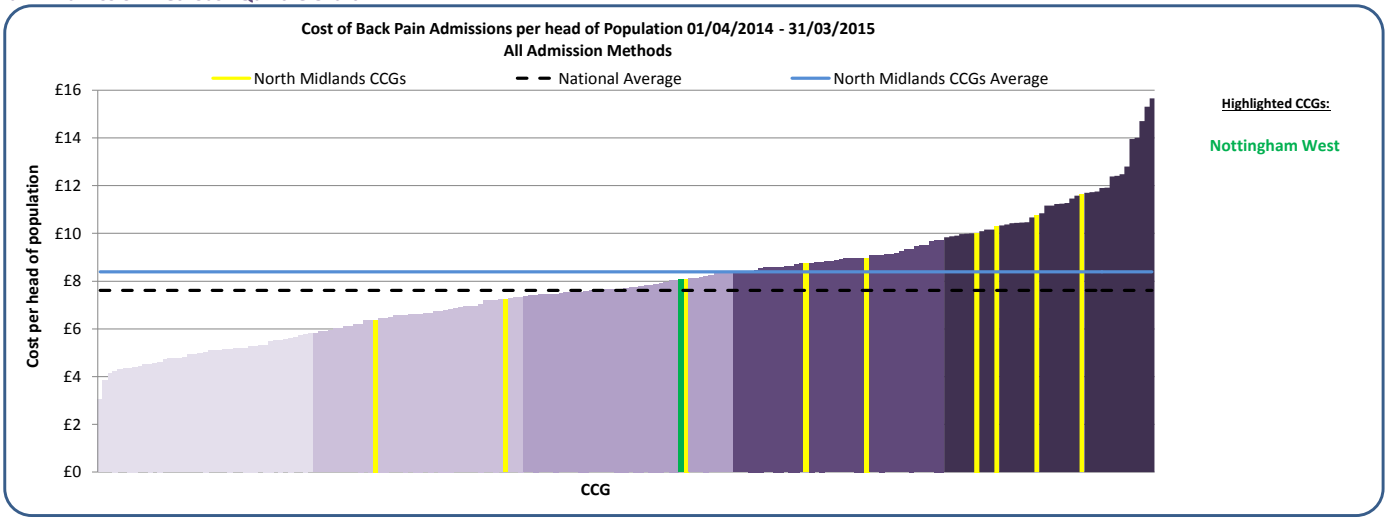
CCG Activity Total Costs

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

	All Admissions		Elective Admissions		Emergency Admissions		
Responsible CCG Name	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	Registered Population (Ages 15+)
Nottingham City	£ 6.37	£ 1,913,285	£ 5.19	£ 1,559,347	£ 1.18	£ 353,124	300,226
Southern Derbyshire	£ 7.24	£ 3,234,833	£ 5.55	£ 2,480,540	£ 1.58	£ 705,503	446,932
Nottingham West	£ 8.06	£ 639,558	£ 6.26	£ 496,250	£ 1.68	£ 132,976	79,330
Mansfield & Ashfield	£ 8.10	£ 1,264,655	£ 6.55	£ 1,023,369	£ 1.47	£ 229,672	156,177
Rushcliffe	£ 8.75	£ 900,981	£ 7.15	£ 736,407	£ 1.60	£ 164,574	103,016
Nottingham North & East	£ 8.97	£ 1,116,678	£ 7.50	£ 933,657	£ 1.45	£ 180,856	124,521
North Derbyshire	£ 10.01	£ 2,468,269	£ 7.92	£ 1,953,023	£ 1.84	£ 452,709	246,676
Newark & Sherwood	£ 10.31	£ 1,124,772	£ 8.33	£ 908,618	£ 1.53	£ 166,835	109,111
Hardwick	£ 10.76	£ 925,439	£ 8.56	£ 735,717	£ 1.93	£ 165,860	85,998
Erewash	£ 11.62	£ 949,249	£ 9.64	£ 786,853	£ 1.80	£ 146,620	81,657
North Midlands Total	**£ 8.39**	**£ 14,537,719**	**£ 6.70**	**£ 11,613,779**	**£ 1.56**	**£ 2,698,729**	**1,733,644**

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
Southern Derbyshire	£ 1,520,103	£ 440,292	£ 270,181	£ 9,611	£ 200,192	£ 9,869	£ 30,292	£ -	**£ 2,480,540**
North Derbyshire	£ 1,026,536	£ 339,483	£ 424,566	£ 3,797	£ 119,200	£ 9,267	£ 30,174	£ -	**£ 1,953,023**
Nottingham City	£ 395,991	£ 555,238	£ 384,836	£ 21,167	£ 157,468	£ 7,914	£ 36,733	£ -	**£ 1,559,347**
Mansfield & Ashfield	£ 280,562	£ 439,759	£ 204,530	£ 3,067	£ 78,566	£ 4,621	£ 12,264	£ -	**£ 1,023,369**
Nottingham North & East	£ 280,406	£ 286,091	£ 247,965	£ 19,923	£ 76,403	£ 6,110	£ 16,759	£ -	**£ 933,657**
Newark & Sherwood	£ 326,157	£ 296,103	£ 225,872	£ 6,190	£ 36,480	£ 726	£ 17,089	£ -	**£ 908,618**
Erewash	£ 451,058	£ 167,734	£ 103,465	£ 2,377	£ 55,129	£ 2,280	£ 4,810	£ -	**£ 786,853**
Rushcliffe	£ 277,004	£ 215,532	£ 189,529	£ 1,672	£ 20,768	£ 9,685	£ 22,216	£ -	**£ 736,407**
Hardwick	£ 324,086	£ 181,609	£ 191,587	£ 703	£ 22,308	£ 6,182	£ 9,242	£ -	**£ 735,717**
Nottingham West	£ 159,055	£ 161,980	£ 129,622	£ 3,311	£ 33,548	£ 2,178	£ 6,555	£ -	**£ 496,250**

What is the data telling us?

There is wide variation across the CCGs in North Midlands in cost per head of population for admissions related to back and radicular pain.

Erewash CCG has the highest spend per head of population regionally (£11.62) driven mainly by high costs for elective admissions. Despite having high elective admission rates for the region, Nottingham City CCG has the lowest costs per head for both emergency and elective admissions (£6.37) 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 spend, but in Nottingham City CCG almost 2.5 times the amount was spent on admissions for injections compared to what is spent on surgery.

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14. Back & Radicular Pain Admissions Breakdown for the North Midlands Region

Highlighted Provider Data is included in this report

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

		Elective Admissions			Emergency	Other Admission	
Code	**Provider Name**	Surgery	Injections	Other	**Admissions**	**Types**	**Total**
RX1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	273	3,102	487	662	13	**4,537**
RTG	DERBY TEACHING HOSPITALS NHS FOUNDATION TRUST	441	1,273	177	522	<6	**2,415**
RK5	SHERWOOD FOREST HOSPITALS NHS FOUNDATION TRUST	-	1,182	53	270	<6	**1,509**
RFS	CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST	-	1,128	50	284	<6	**1,464**
NV313	CIRCLE - NOTTINGHAM NHS TREATMENT CENTRE	-	1,144	137	-	-	**1,281**
RHQ	SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	99	82	65	79	6	**331**
NYW04	ASPEN - CLAREMONT HOSPITAL	112	104	12	-	-	**228**
RWJ	STOCKPORT NHS FOUNDATION TRUST	23	120	26	44	<6	**214**
NY601	PAIN MANAGEMENT SOLUTIONS - OAKS PARK PCC	-	130	74	-	-	**204**
RP5	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST	9	120	27	16	-	**172**
NVC40	NOTTINGHAM WOODTHORPE HOSPITAL	46	67	6	-	-	**119**
NTP13	BARLBOROUGH NHS TREATMENT CENTRE	45	69	<6	-	-	**115**
RY8	DERBYSHIRE COMMUNITY HEALTH SERVICES NHS TRUST	-	30	<6	13	30	**77**
NTX01	ONE HEALTH GROUP LTD	16	43	<6	-	-	**64**
RJF	BURTON HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	36	-	**38**
RM3	SALFORD ROYAL NHS FOUNDATION TRUST	11	8	7	<6	-	**30**
NT213	NUFFIELD HEALTH, DERBY HOSPITAL	20	8	-	-	-	**28**
RWD	UNITED LINCOLNSHIRE HOSPITALS NHS TRUST	-	<6	<6	17	<6	**21**
NT440	BMI - THORNBURY HOSPITAL	12	<6	<6	-	-	**21**
RFR	THE ROTHERHAM NHS FOUNDATION TRUST	-	-	18	-	-	**18**
R1E	STAFFORDSHIRE AND STOKE ON TRENT PARTNERSHIP NHS TRUST	-	13	<6	-	-	**15**
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	<6	6	<6	-	**11**
RJN	EAST CHESHIRE NHS TRUST				10	-	**10**
RWE	UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST	<6	<6	-	<6	-	**8**
RRK	UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST	<6	<6	<6	<6	<6	**6**
RHA	NOTTINGHAMSHIRE HEALTHCARE NHS TRUST	-	-	<6	<6	<6	**<6**
RKB	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	-	<6	-	<6	<6	**<6**
NT401	BMI - THE ALEXANDRA HOSPITAL	<6	<6	-	-	-	**<6**
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	-	<6	<6	-	-	**<6**
RM2	UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	-	<6	-	-	-	**<6**
RXQ	BUCKINGHAMSHIRE HEALTHCARE NHS TRUST				<6	-	**<6**
NT339	SPIRE REGENCY HOSPITAL	-	<6	<6	-	-	**<6**
RJE	UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	-	<6	-	<6	-	**<6**
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	-	<6	<6	-	-	**<6**
RRJ	THE ROYAL ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	<6	<6	-	<6	-	**<6**
R1H	BARTS HEALTH NHS TRUST				<6	-	**<6**
RA4	YEOVIL DISTRICT HOSPITAL NHS FOUNDATION TRUST				<6	-	**<6**
RGQ	IPSWICH HOSPITAL NHS TRUST	<6	-	-	<6	-	**<6**
RNS	NORTHAMPTON GENERAL HOSPITAL NHS TRUST	-	<6	-	<6	-	**<6**
RR1	HEART OF ENGLAND NHS FOUNDATION TRUST	-	<6	-	<6	-	**<6**
RRF	WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST	-	<6	-	-	-	**<6**
RYJ	IMPERIAL COLLEGE HEALTHCARE NHS TRUST				<6	-	**<6**
RA3	WESTON AREA HEALTH NHS TRUST				<6	-	**<6**
RAE	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	<6	-	-	**<6**
RBZ	NORTHERN DEVON HEALTHCARE NHS TRUST				<6	-	**<6**
RCU	SHEFFIELD CHILDREN'S NHS FOUNDATION TRUST	-	-	<6	-	-	**<6**
RD1	ROYAL UNITED HOSPITALS BATH NHS FOUNDATION TRUST				<6	-	**<6**
RD8	MILTON KEYNES HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	**<6**
RGT	CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	**<6**
RHM	UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST				<6	-	**<6**
RK9	PLYMOUTH HOSPITALS NHS TRUST				<6	-	**<6**
RKE	THE WHITTINGTON HOSPITAL NHS TRUST				<6	-	**<6**
RLT	GEORGE ELIOT HOSPITAL NHS TRUST				<6	-	**<6**
RN3	GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST				<6	-	**<6**
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	-	-	<6	-	-	**<6**
RTD	THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	**<6**
RVR	EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST				<6	-	**<6**
RW3	CENTRAL MANCHESTER UNIVERSITY HOSPITALS NHS FOUNDATION TRUST				-	<6	**<6**
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	-	<6	-	-	-	**<6**
RWA	HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	<6	-	-	-	-	**<6**
RWP	WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST				<6	-	**<6**
RXH	BRIGHTON AND SUSSEX UNIVERSITY HOSPITALS NHS TRUST				<6	-	**<6**
RXN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST				<6	-	**<6**
NT403	BMI - THE BEARDWOOD HOSPITAL	-	<6	-	-	-	**<6**
NVC09	NEW HALL HOSPITAL	<6	-	-	-	-	**<6**
Total		**1,115**	**8,669**	**1,172**	**1,993**	**64**	**13,013**

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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	27/06/2016	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?	