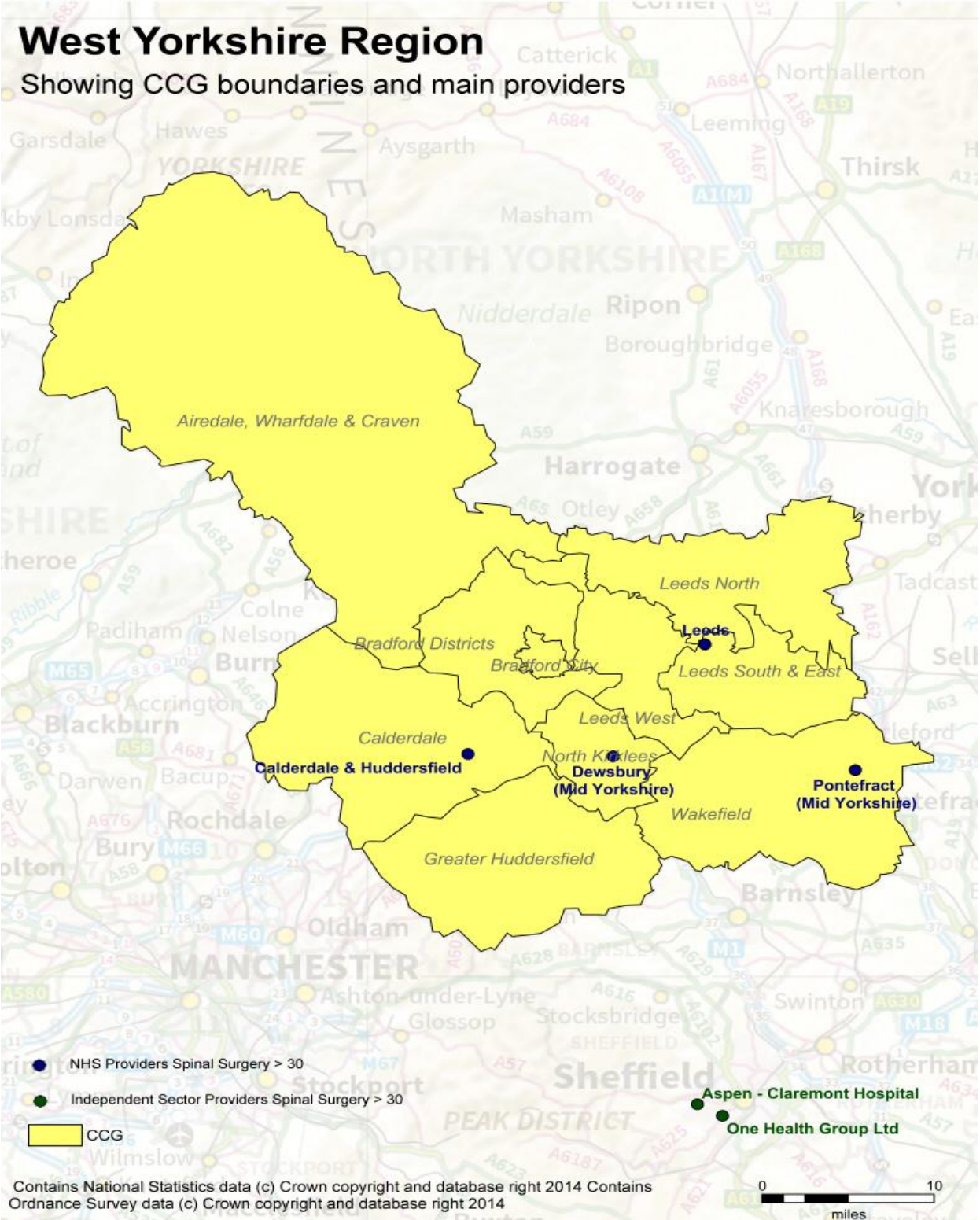


# Back Pain Report

## Bradford City

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 West Yorkshire 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 West Yorkshire Region are:

- Airedale NHS Foundation Trust
- Bradford Teaching Hospitals NHS Foundation Trust
- Leeds Teaching Hospitals NHS Trust
- Mid Yorkshire Hospitals NHS Trust
- Calderdale & Huddersfield NHS Foundation Trust

The Independent Sector Providers included for the West Yorkshire Region are:

- The Yorkshire Clinic
- Spire Methley Park Hospital
- Spire Elland Hospital
- Aspen - Claremont Hospital
- One Health Group Ltd

## 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

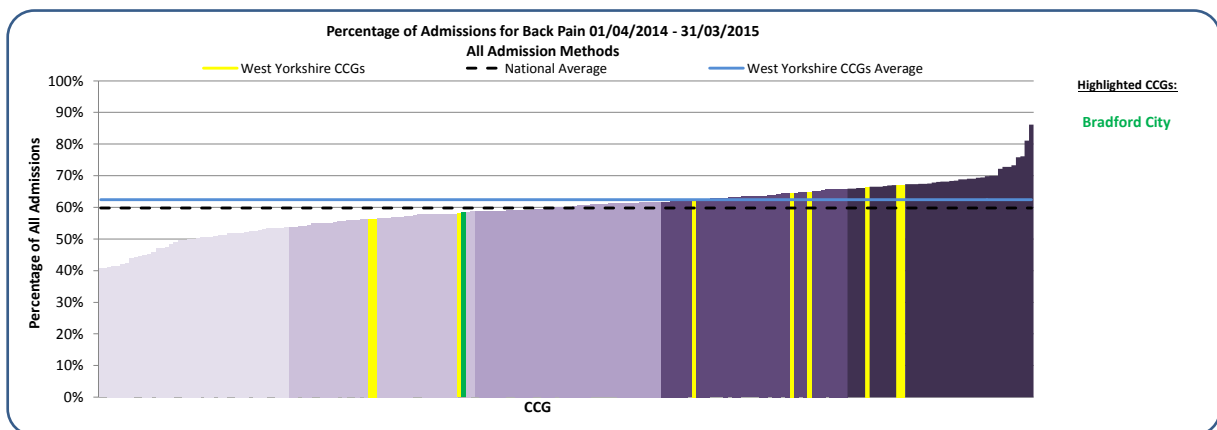
England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	237,256	56.7%	43.3%
Emergency	39,331	14,309	53,640	73.3%	26.7%
Other	771	951	1,722	44.8%	55.2%
<b>Total</b>	<b>174,550</b>	<b>118,068</b>	<b>292,618</b>	<b>59.7%</b>	<b>40.3%</b>

West Yorkshire CCGs	Back	Radicular	Total	% Back	% Radicular
Elective	6,808	4,337	11,145	61.1%	38.9%
Emergency	1,394	588	1,982	70.3%	29.7%
Other	8	20	28	28.6%	71.4%
<b>Total</b>	<b>8,210</b>	<b>4,945</b>	<b>13,155</b>	<b>62.4%</b>	<b>37.6%</b>

#### 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)

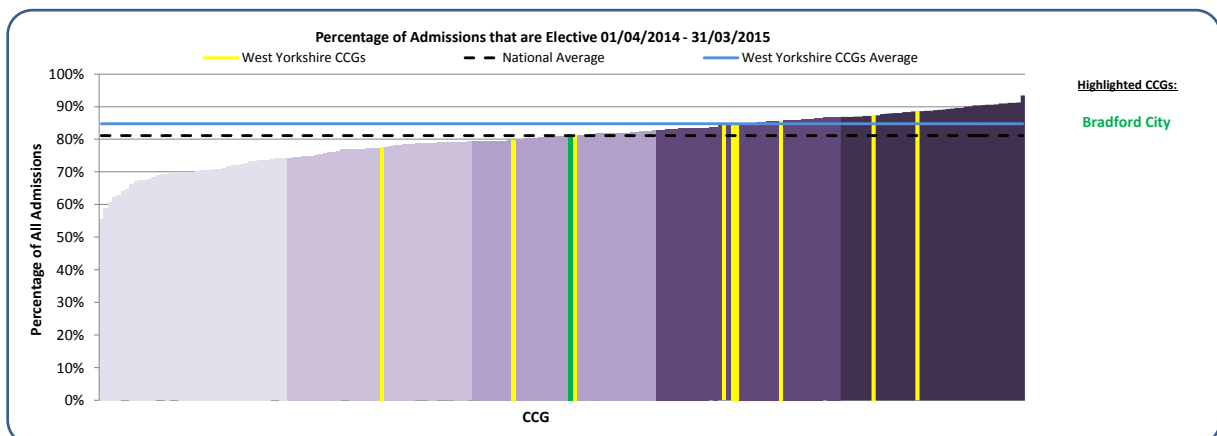
Calderdale	56.3%	Leeds North	64.6%
Greater Huddersfield	56.4%	Wakefield	64.8%
North Kirklees	58.0%	Airedale, Wharfedale & Craven	66.4%
Bradford City	58.4%	Leeds West	67.1%
Bradford Districts	62.3%	Leeds South & East	67.2%
West Yorkshire CCGs	62.4%	England	59.8%



#### 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 Kirklees	77.6%	Leeds West	84.5%
Leeds North	79.8%	Greater Huddersfield	84.8%
Bradford City	81.0%	Leeds South & East	85.7%
Airedale, Wharfedale & Craven	81.0%	Wakefield	87.3%
Bradford Districts	84.2%	Calderdale	88.6%
West Yorkshire CCGs	84.7%	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 13,155 (4.5%) of these for patients registered within the West Yorkshire 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 the West Yorkshire CCGs the proportion of admissions for back pain ranges from 56% to 67%.

Nationally, approximately 85% of back and radicular pain admissions are elective, with the West Yorkshire CCGs having a lower proportion (78.7%). At a CCG level in the West Yorkshire, the proportion of elective admissions for these populations ranges from 78% in North Kirklees to 89% in Calderdale.

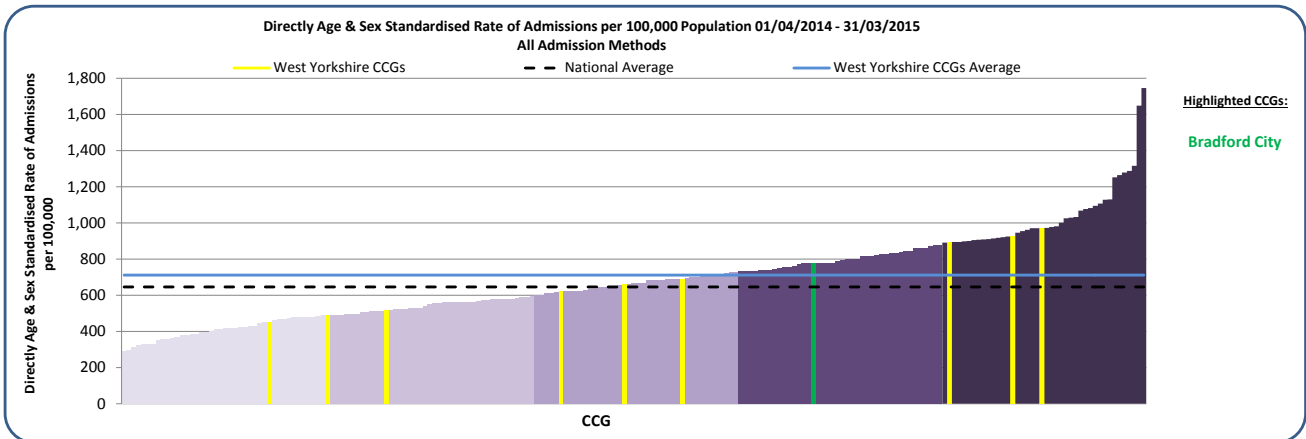
## Clinical Commissioning Group (CCG) activity

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

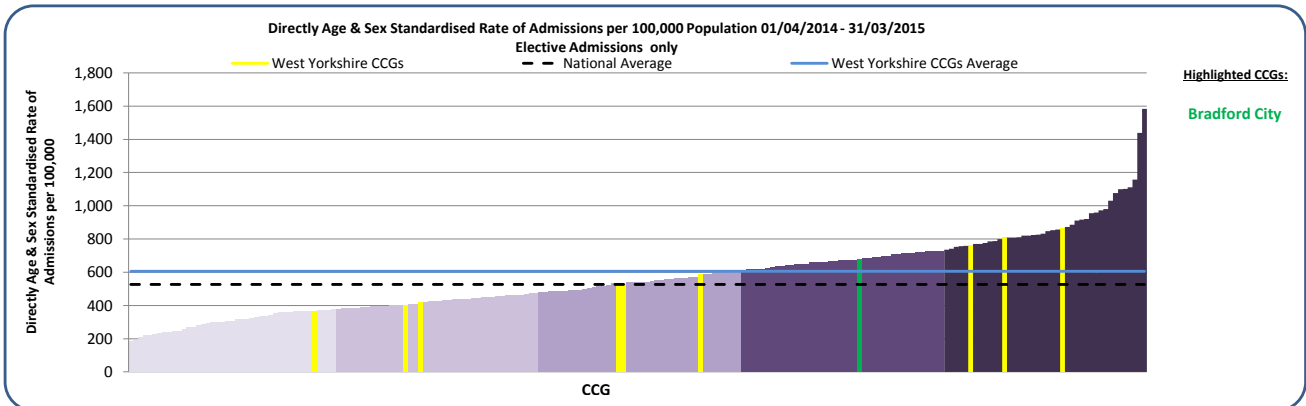
#### a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
Calderdale	971.4	859.9	109.3	Airedale, Wharfedale & Craven	662.8	534.9	125.5
Wakefield	924.5	806.2	116.7	Leeds South & East	619.2	535.6	83.6
Bradford Districts	893.8	761.6	129.8	North	514.7	403.0	109.3
Bradford City	776.9	679.7	95.7	Leeds West	489.6	418.6	70.9
Greater Huddersfield	689.8	586.0	101.7	Leeds North	453.2	366.4	86.2
West Yorkshire CCGs	710.1	606.4	102.3	England	645.6	526.5	115.4

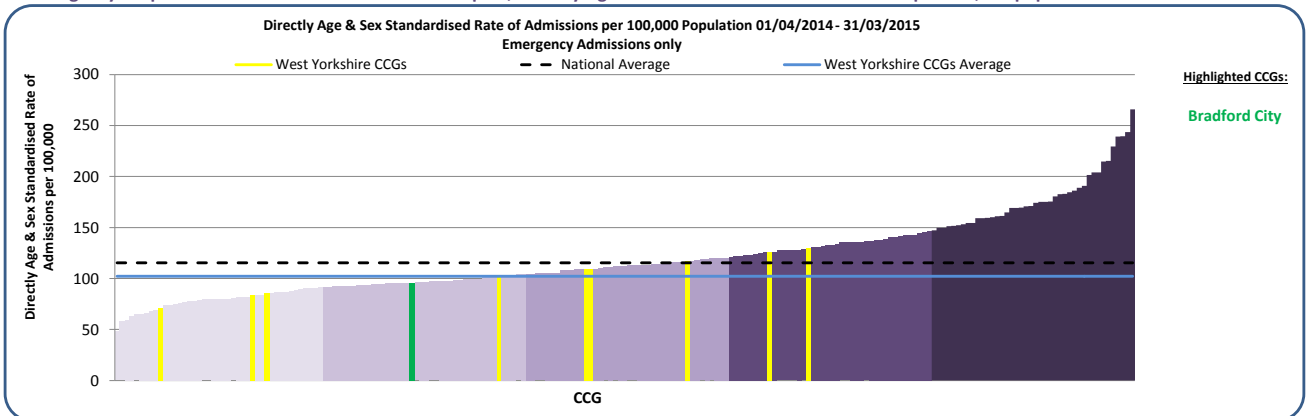
#### b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



#### 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 considerable variation in elective admission rates across the CCGs within West Yorkshire with a 2.3-fold difference between the regional lowest (Leeds North CCG) and the highest CCG for the region (Calderdale CCG).

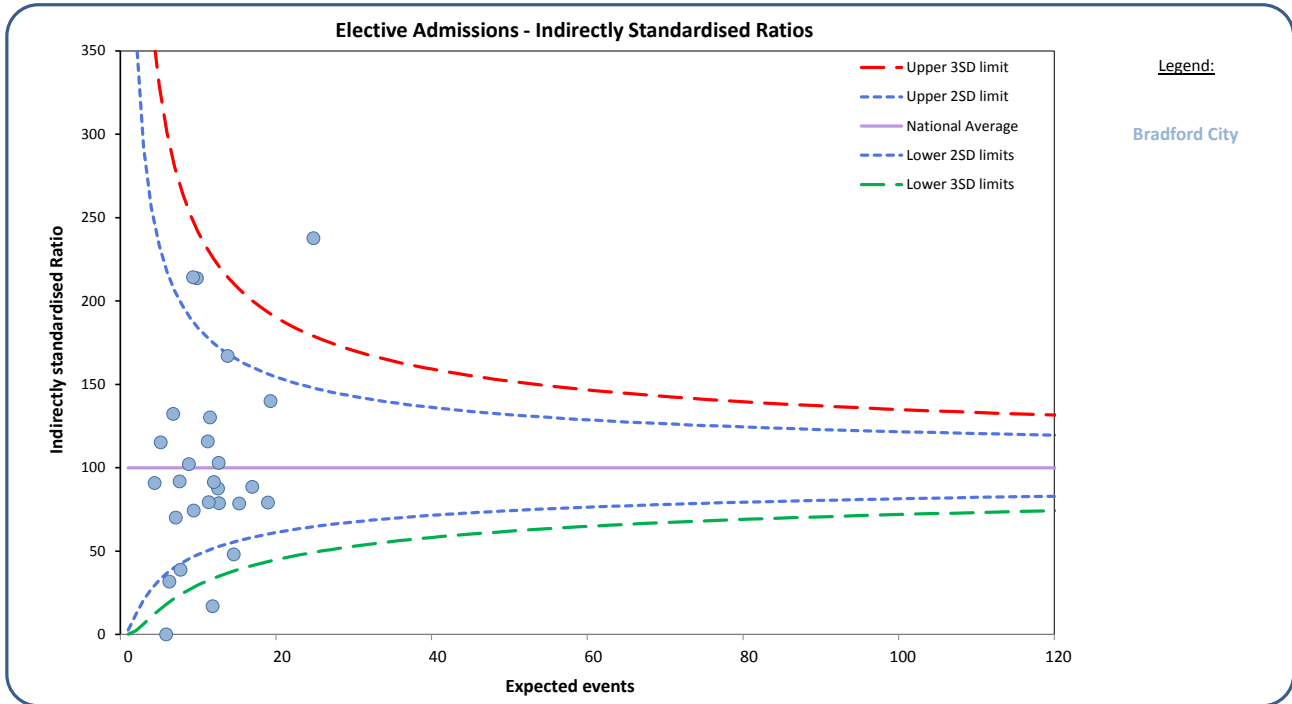
Similarly, there is wide variation for emergency admissions across the CCGs in the region but on average the region has lower rates of emergency admissions than the national average with 3 Leeds CCGs in the lowest quintile nationally.

## Clinical Commissioning Group (CCG) activity - GP practice level

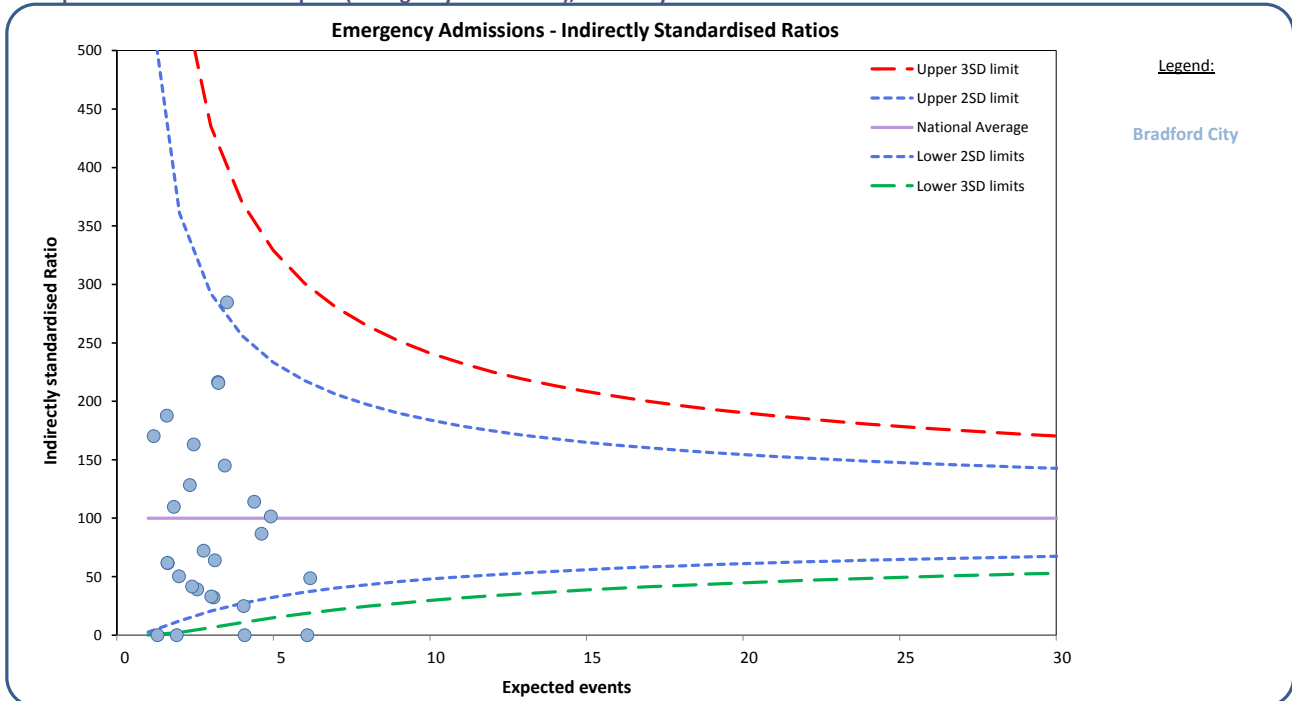
### 3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

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



#### 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 Bradford City

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.

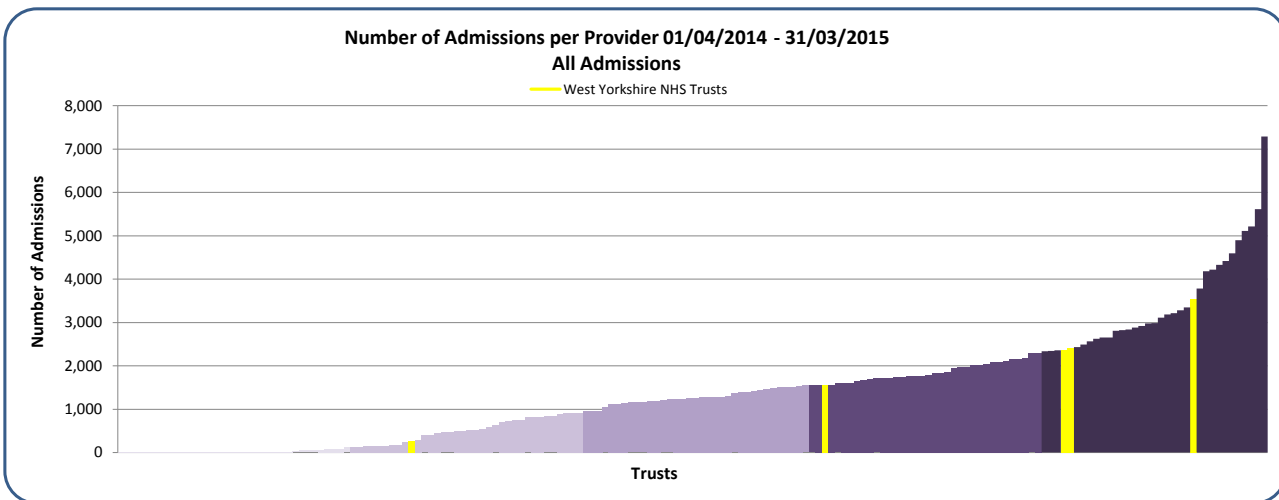
Practice Code	Practice Name	CCG	Population 15+	Elective			Emergency		
				Observed	Expected	Ratio	Observed	Expected	Ratio
B83016	Farrow Medical Centre	02W	4,396	27	19.30	139.90	<6	4.62	86.59
B83025	Little Horton Lane Medical Centre-Mall	02W	3,111	11	12.55	87.63	<6	3.09	32.32
B83026	Primrose Surgery	02W	3,518	11	12.03	91.47	7	3.23	216.39
B83034	Grange Medical Centre	02W	4,570	15	16.96	88.46	<6	4.38	114.04
B83051	Bradford Student Health Service	02W	8,593	<6	11.84	16.89		6.08	
B83052	Kensington St Hc - Wilson	02W	6,337	59	24.82	237.67	<6	6.18	48.57
B83058	The Avicenna Medical Practice	02W	4,580	7	14.58	48.02		4.08	
B83069	Dr Basu	02W	1,186	<6	4.41	90.75	<6	1.17	170.34
B83070	Mughal Medical Centre	02W	2,739	21	9.83	213.58	<6	2.57	38.97
B83604	The Lister Surgery	02W	1,945	<6	7.14	70.06	<6	1.82	109.72
B83611	Barkerend Hc - El Eliwi	02W	1,629	9	6.80	132.26	<6	1.63	61.46
B83613	Lcd Bradford At Manningham Medical Centre	02W	2,571	7	9.42	74.27	<6	2.45	163.18
B83614	Picton Medical Centre	02W	3,749	10	12.70	78.75	<6	3.45	144.99
B83617	Dr U Akbar	02W	1,384	6	5.21	115.13		1.30	
B83621	Dr A Azam & Partners	02W	2,520	20	9.34	214.21	<6	2.41	41.53
B83622	Dr Ma Iqbal & Partners	02W	3,559	13	12.64	102.84	7	3.25	215.64
B83626	Valley View Surgery	02W	4,374	12	15.27	78.61	<6	4.05	24.71
B83627	Frizinghall Medical Centre	02W	2,768	15	11.52	130.26	<6	2.77	72.17
B83628	Alice Street Surgery	02W	3,278	13	11.22	115.85	<6	3.02	33.09
B83629	Peel Park Surgery	02W	1,997	9	8.81	102.13	<6	1.99	50.25
B83638	Lcd Bradford	02W	3,337	9	11.35	79.28	<6	3.13	63.95
B83642	Whetley Medical Centre	02W	1,711	<6	6.30	31.73	<6	1.62	61.82
B83653	Dr Gilkar	02W	5,431	15	18.95	79.14	<6	4.92	101.55
B83657	Bevan Healthcare Cic	02W	2,656	<6	7.74	38.77	<6	2.34	128.45
B83659	Park Grange Medical Centre	02W	1,766		5.89		<6	1.60	187.67
B83660	Bilton Medical Centre	02W	3,778	23	13.77	166.97	10	3.51	284.55
B83661	Moor Park Medical Practice	02W	2,078	7	7.63	91.71		1.92	

## Hospital Trust activity

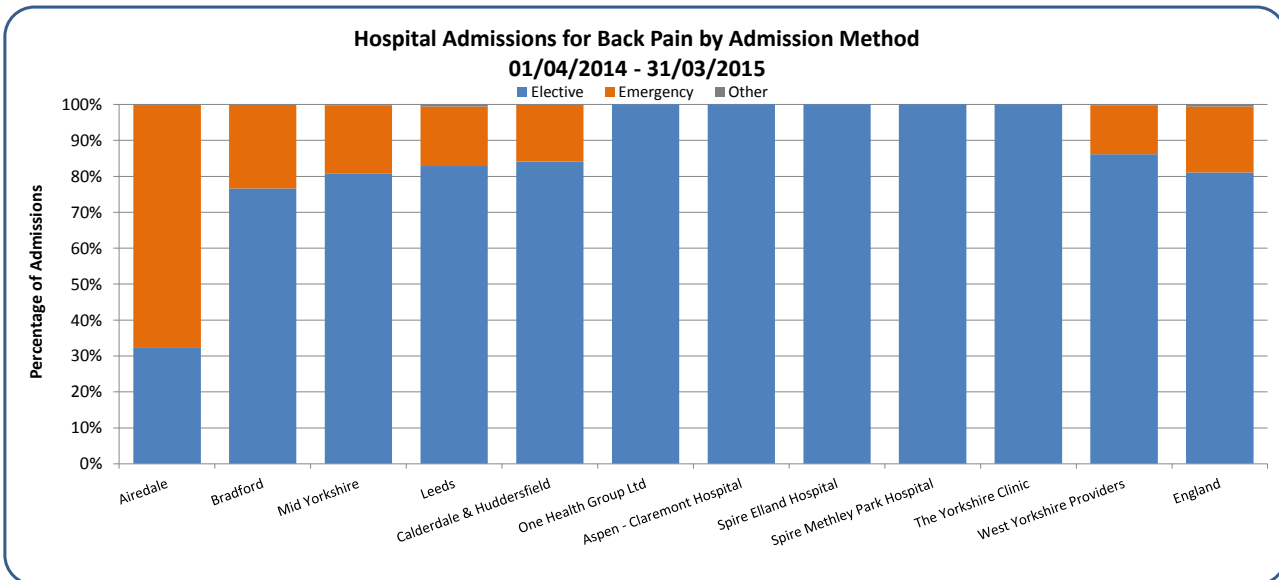
### 5. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

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

Leeds	3,539	Bradford	1,564
Calderdale & Huddersfield	2,405	Airedale	265
Mid Yorkshire	2,377		
West Yorkshire NHS Trusts	10,150	England	251,444



#### b. Number of admissions per hospital Trust, by admission method (West Yorkshire 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 5 NHS Trusts used by the West Yorkshire CCGs is highly variable with 1 Trust in the second lowest quintile and 3 Trusts in the highest quintile when comparing all NHS Trusts nationally.

The proportion of hospital activity for back pain which is classed as elective care for the NHS Trusts used by West Yorkshire CCGs is higher than the England proportion. However at NHS Trust level the proportion varies between 33% at Airedale Trust to 84% at Calderdale & Huddersfield Trust. All NHS activity at the 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 speciality (West Yorkshire Providers only)

Provider Name	Pain Management & Anaesthetics	Trauma & Orthopaedics	Spinal Surgery Service	Interventional Radiology	Neurosurgery	Other Functions	Total
Airedale	-	74	-	-	-	12	86
Bradford	1,188	-	-	-	-	10	1,198
Leeds	1,743	<6	1,082	-	52	52	2,929
Mid Yorkshire	1,891	-	-	-	-	27	1,918
Calderdale & Huddersfield	1,442	561	-	-	-	19	2,022
The Yorkshire Clinic	1,555	14	9	-	-	<6	1,578
Spire Methley Park Hospital	306	<6	-	-	-	<6	306
Spire Elland Hospital	235	<6	-	-	-	-	235
Aspen - Claremont Hospital	52	446	-	-	546	-	1,044
One Health Group Ltd	-	14	-	-	1,106	-	1,120
<b>Total</b>	<b>8,412</b>	<b>1,109</b>	<b>1,091</b>	<b>-</b>	<b>1,704</b>	<b>120</b>	<b>12,436</b>

#### 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
<b>Total</b>	<b>13,238</b>	<b>1,953</b>	<b>26,017</b>	<b>33,177</b>	<b>61,463</b>	<b>32,458</b>	<b>168,306</b>

#### 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 for Leeds Trust there is a high volume of activity is recorded within Spinal Surgery. The two Independent Sector Providers (Aspen - Claremont Hospital and One Health Group) have high volumes of activity recorded within Neurosurgery.

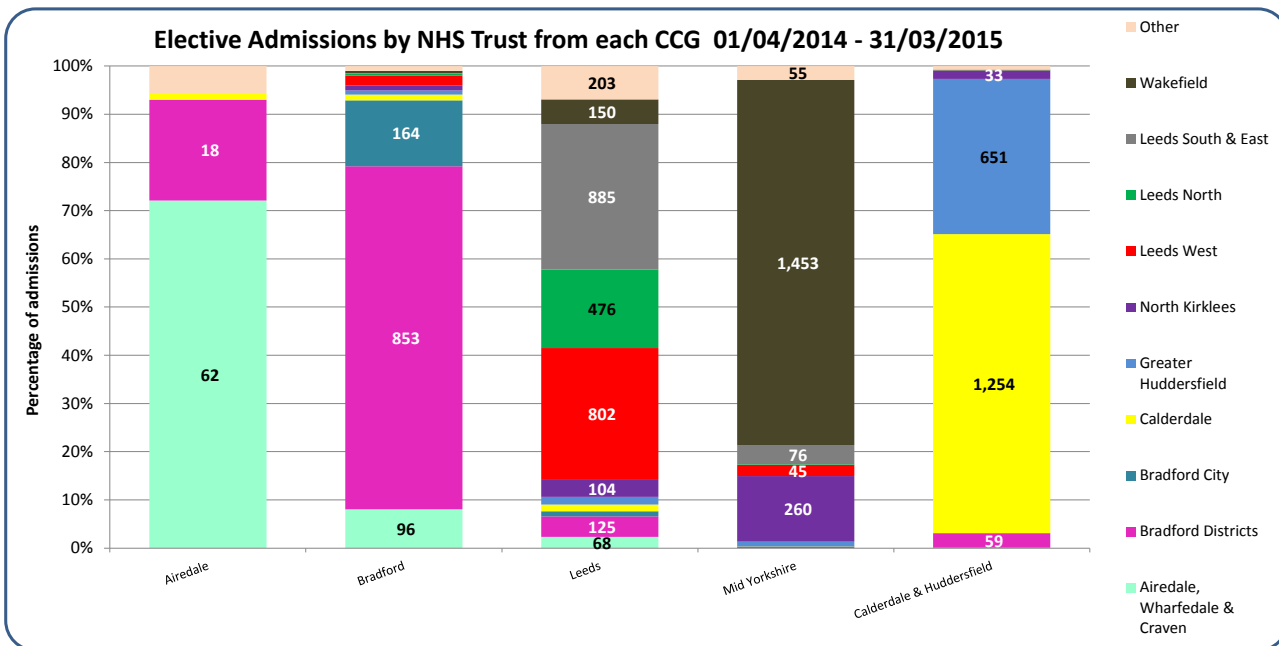
The second table shows the different types of injections being undertaken within each of the treatment function codes and demonstrates that nationally over 62% (104,751) of injections take place within Pain Management/Anaesthetics and 25% of injections are undertaken within Trauma and Orthopaedics.

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.

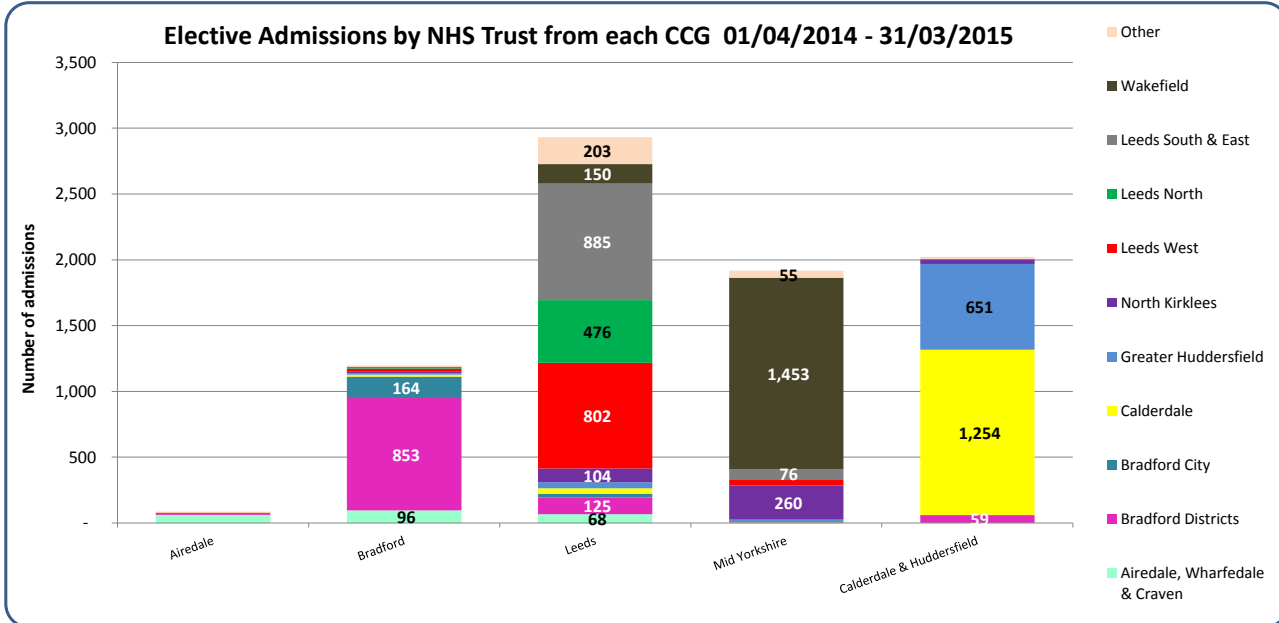
## Hospital Trust activity from CCGs

### 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.

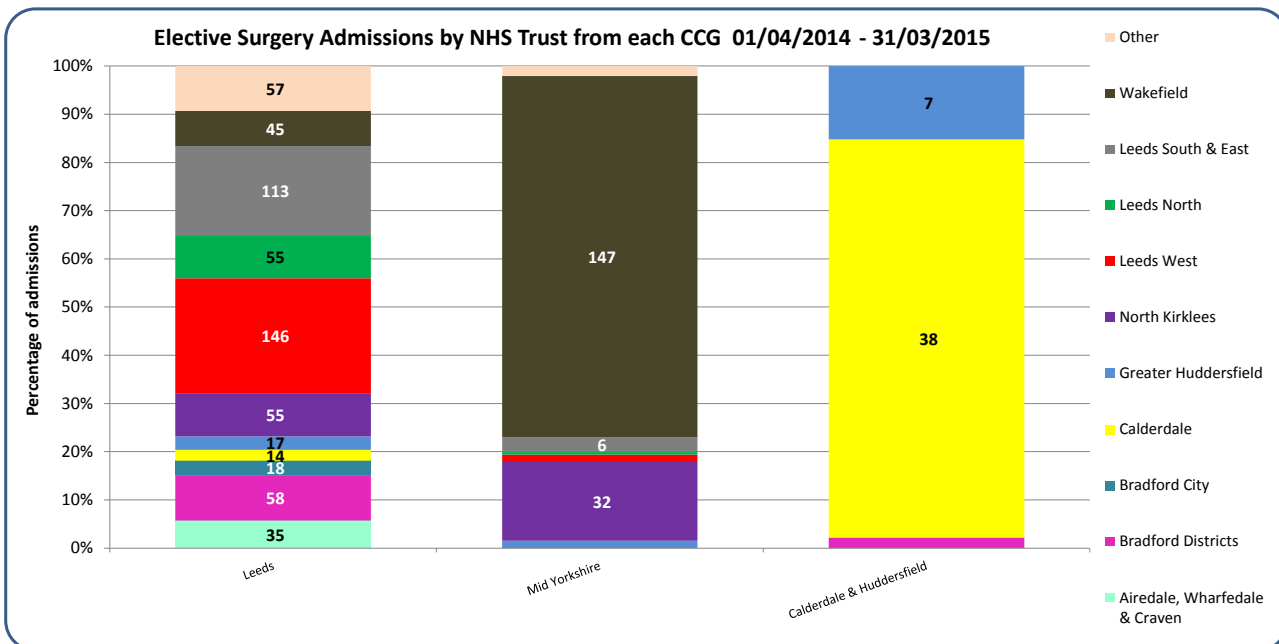
Leeds Trust is the highest volume provider in West Yorkshire and admits patients from all of the CCGs across the region as well as from CCGs outside of this region. In contrast, Calderdale & Huddersfield Trust predominantly admit patients from the CCG where the Trust is located.

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

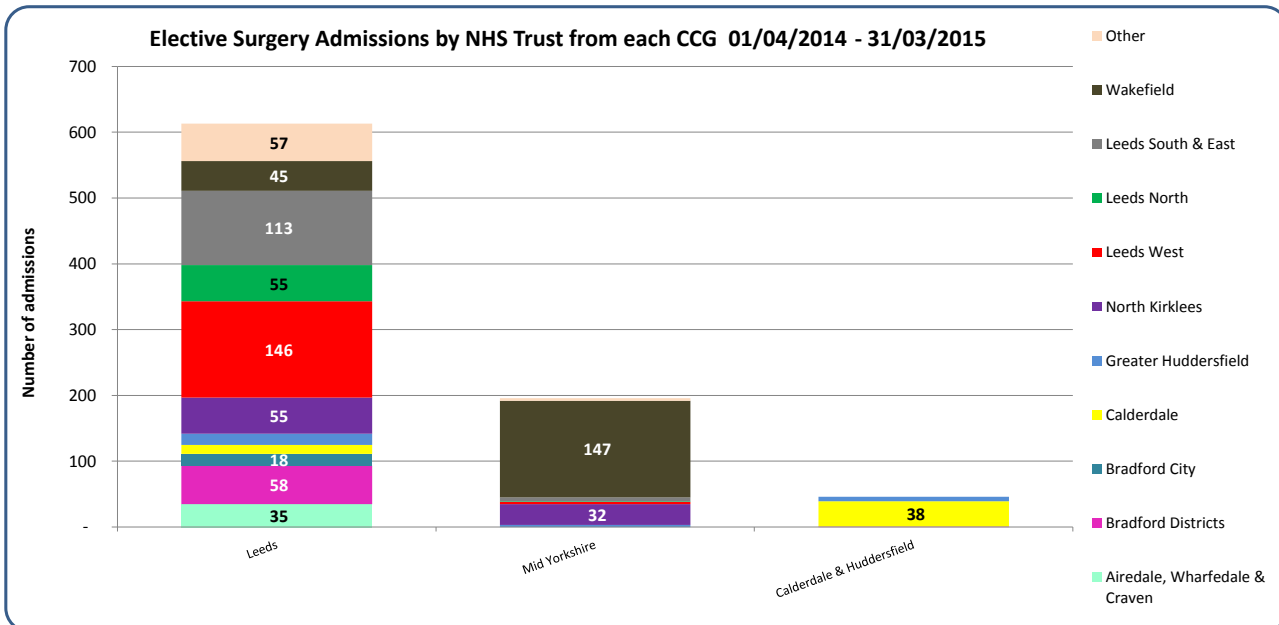
## Hospital Trust activity from CCGs

### 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 back and radicular pain.

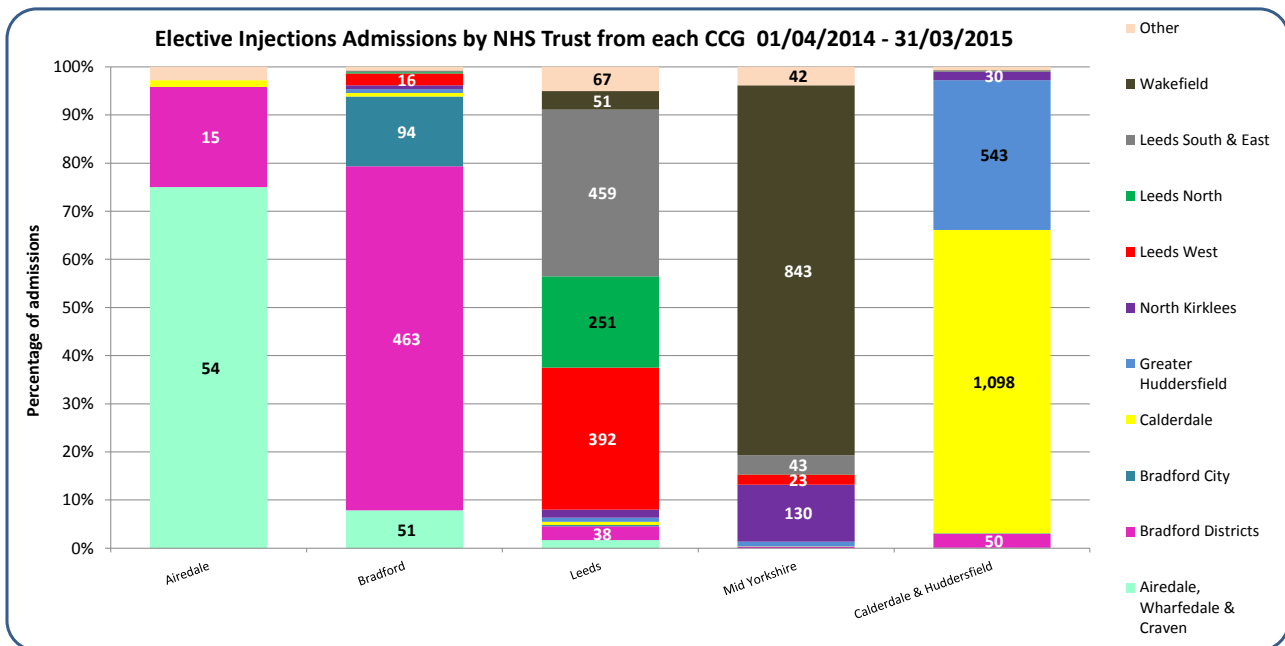
Leeds Trust is the highest volume provider of spinal surgery in West Yorkshire and admits patients from all of the CCGs across the region as well as from CCGs outside of this region. In contrast, Mid Yorkshire Trust and Calderdale & Huddersfield Trust predominantly admit patients from the CCGs where the Trust Hospital sites are located.

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

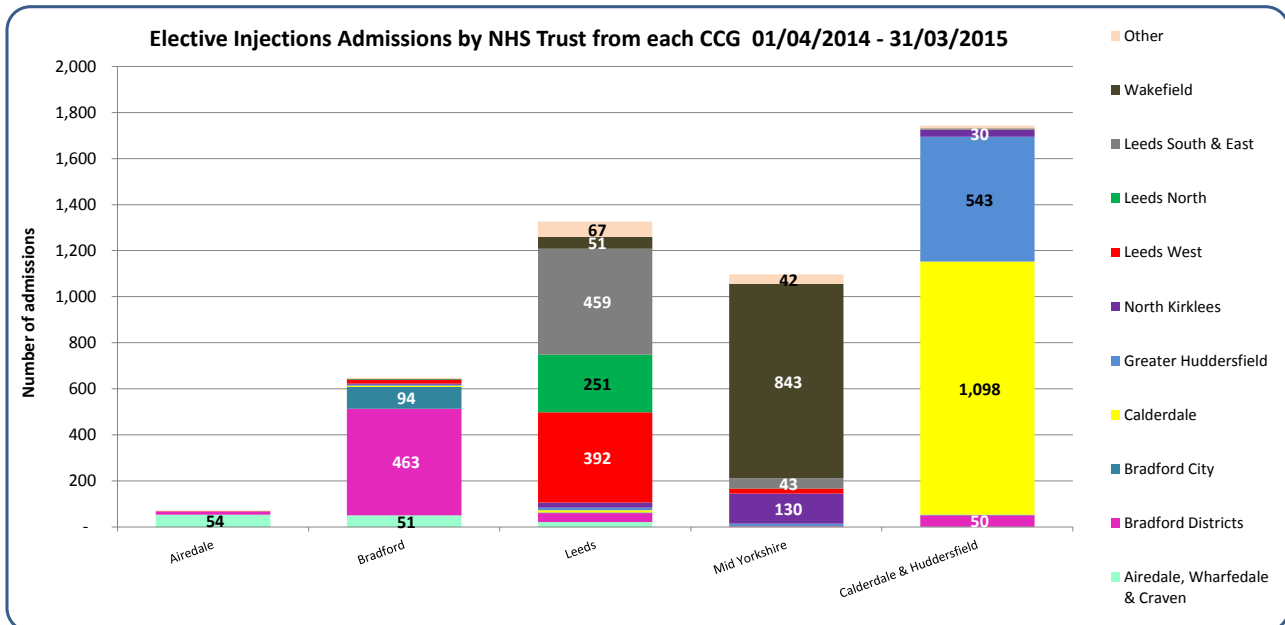
## Hospital Trust activity from CCGs

### 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.

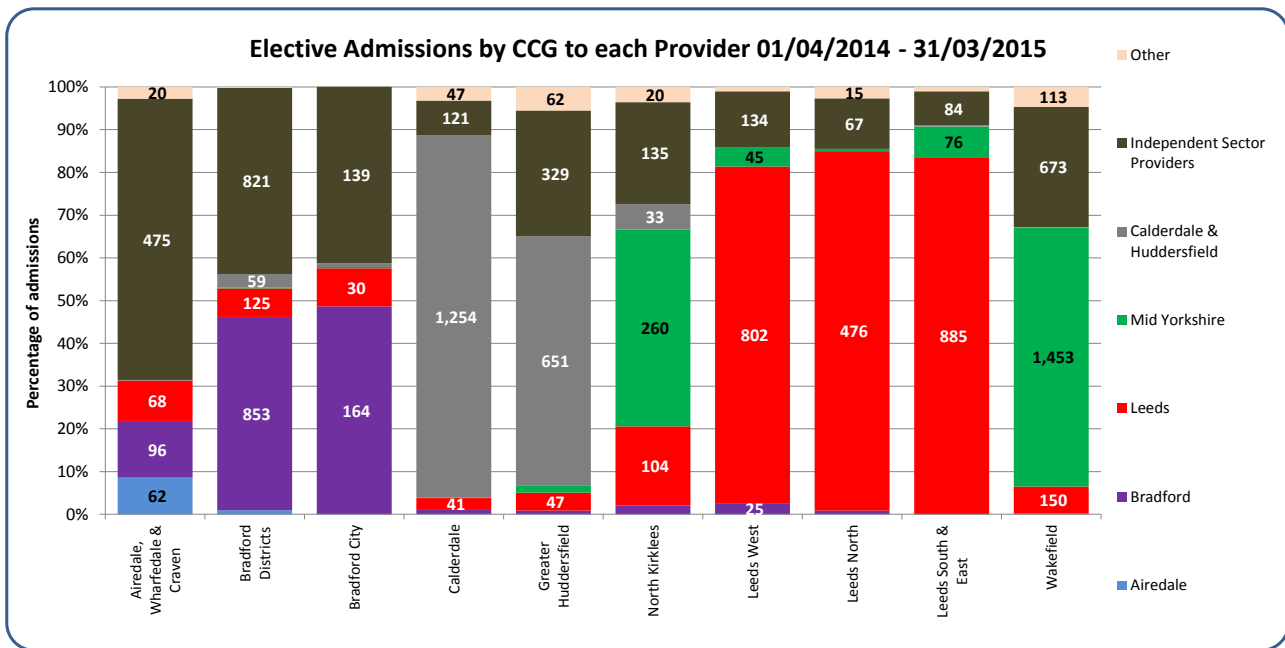
Calderdale & Huddersfield Trust is the highest volume provider of admissions for injections in West Yorkshire and predominantly admits patients from the CCG where the Trust is located. In contrast to the patient flows for surgery, patients are more likely to be admitted to their local Trust rather than Leeds Trust. Although Leeds Trust admits patients from all of the CCGs across the region as well as from CCGs outside of this region, the majority of their patients come from the 3 Leeds CCGs.

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

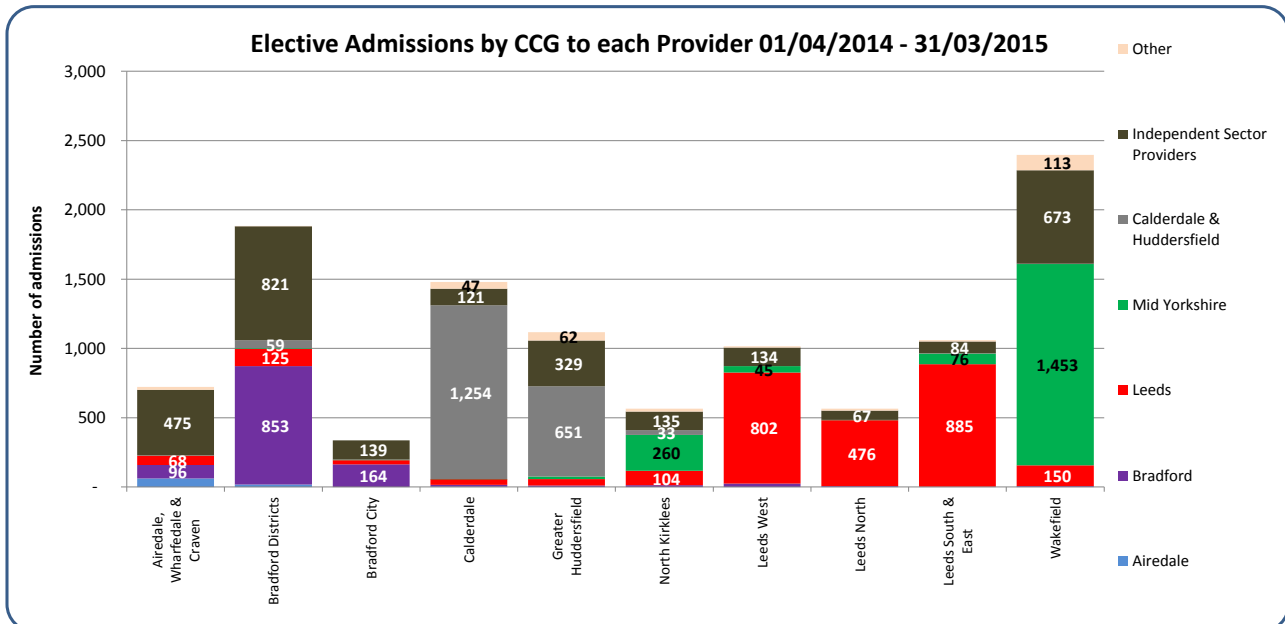
## CCG activity to Hospital Trust

### 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 Wakefield CCGs and patients from this CCG were admitted to NHS Trusts in the region (Leeds Trust and Mid Yorkshire Trust) as well as a high level of activity with Independent Sector Providers (673 admissions).

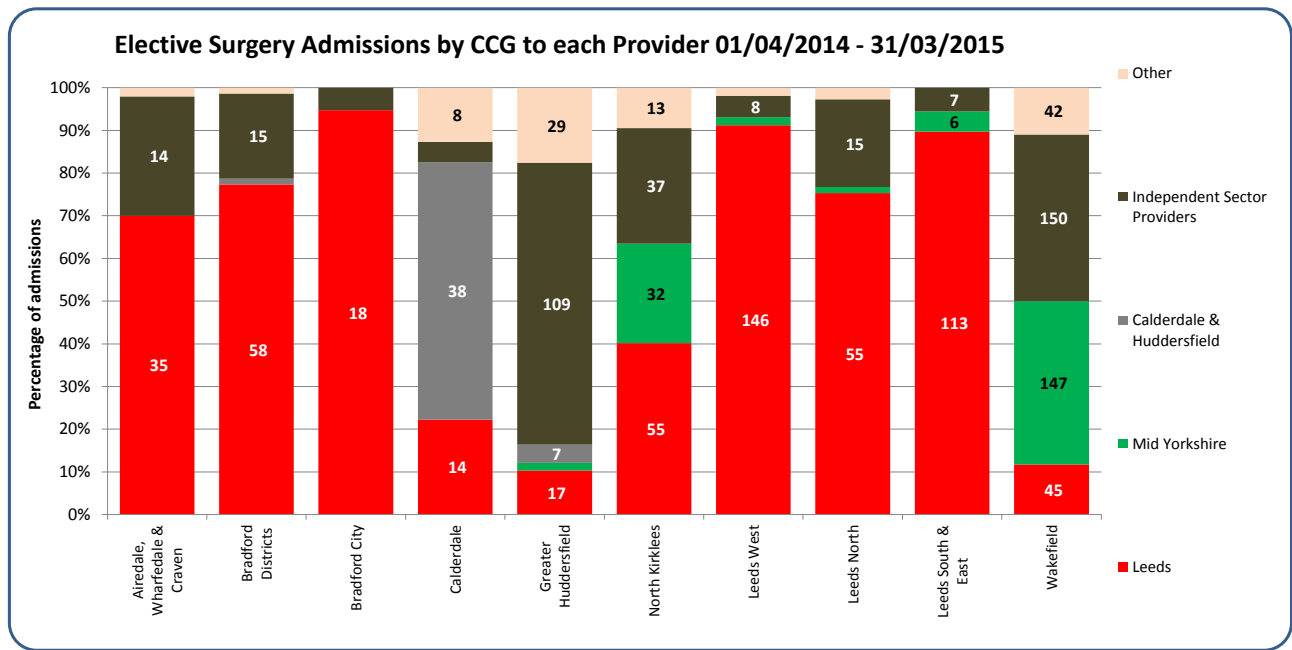
Airedale, Wharfedale & Craven and the 2 Bradford CCGs have the highest proportion of their activity going through Independent Sector Providers compared to the other CCGs in West Yorkshire.

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

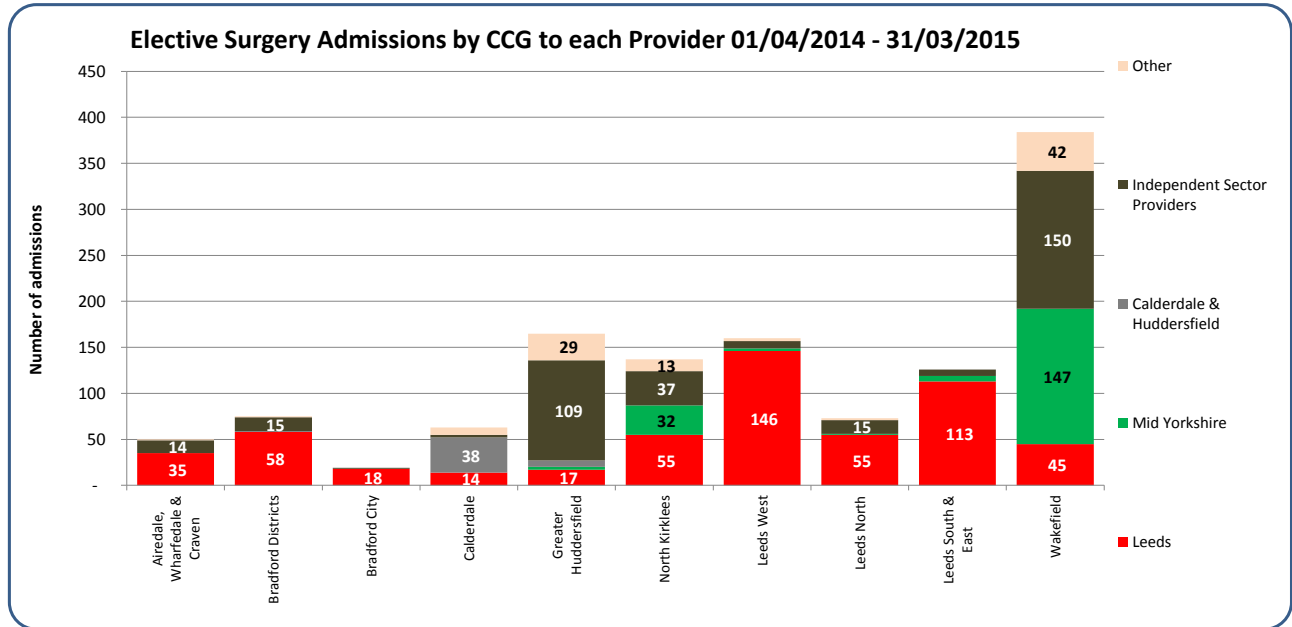
**CCG activity to Hospital Trust**

**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.

Activity is highest for Wakefield CCGs and patients from this CCG were admitted to NHS Trusts in the region (Leeds Trust and Mid Yorkshire Trust) as well as a high level of activity with Independent Sector Providers (150 admissions).

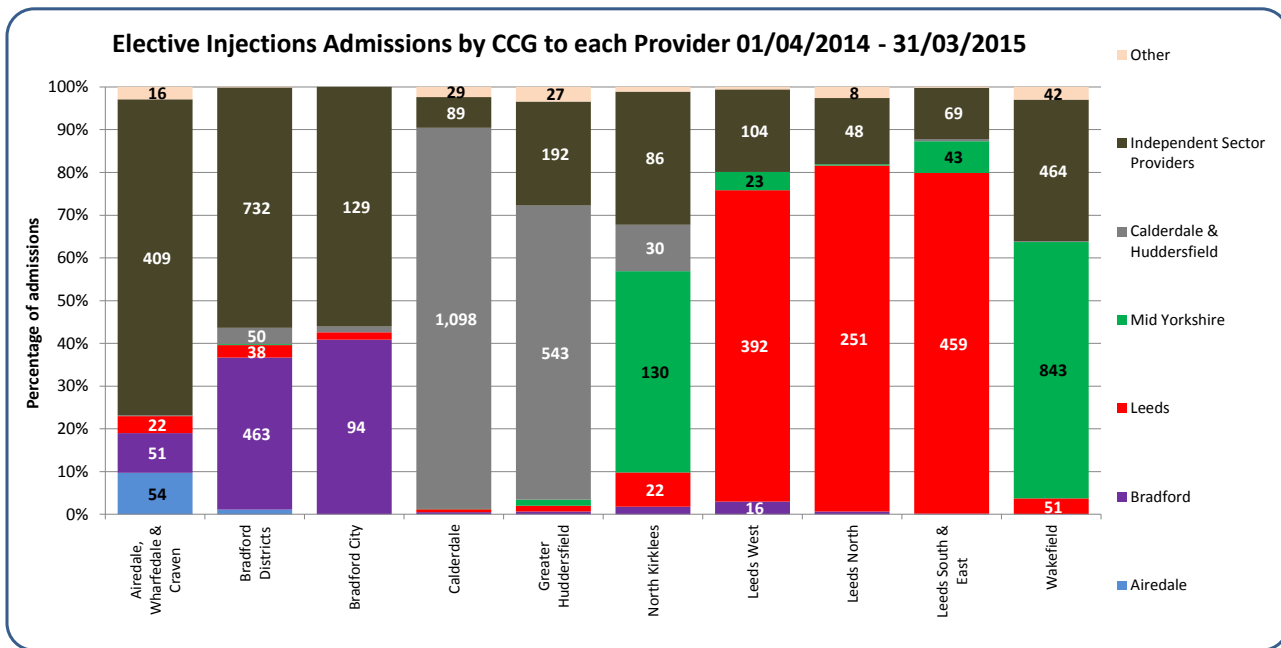
Greater Huddersfield and Wakefield CCGs have the highest proportion of their activity for spinal surgery going through Independent Sector Providers compared to the other CCGs in West Yorkshire.

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

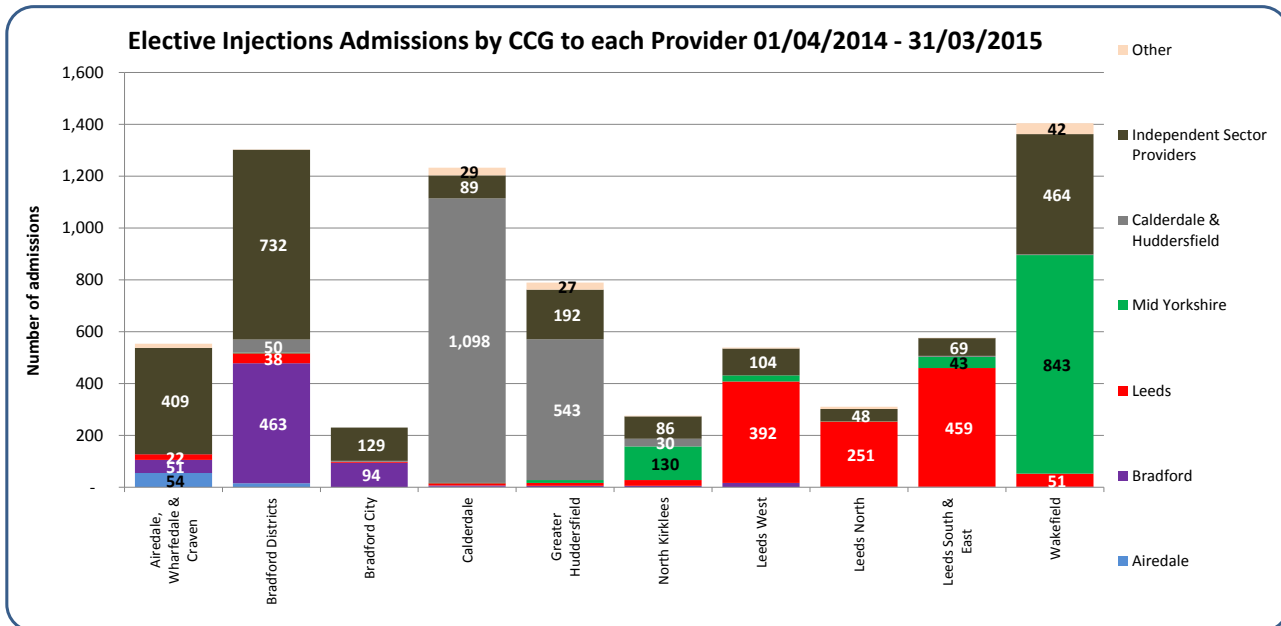
**CCG activity to Hospital Trust**

**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 Wakefield CCGs and patients from this CCG were admitted to NHS Trusts in the region (Leeds Trust and Mid Yorkshire Trust) as well as a high level of activity with Independent Sector Providers (464 admissions).

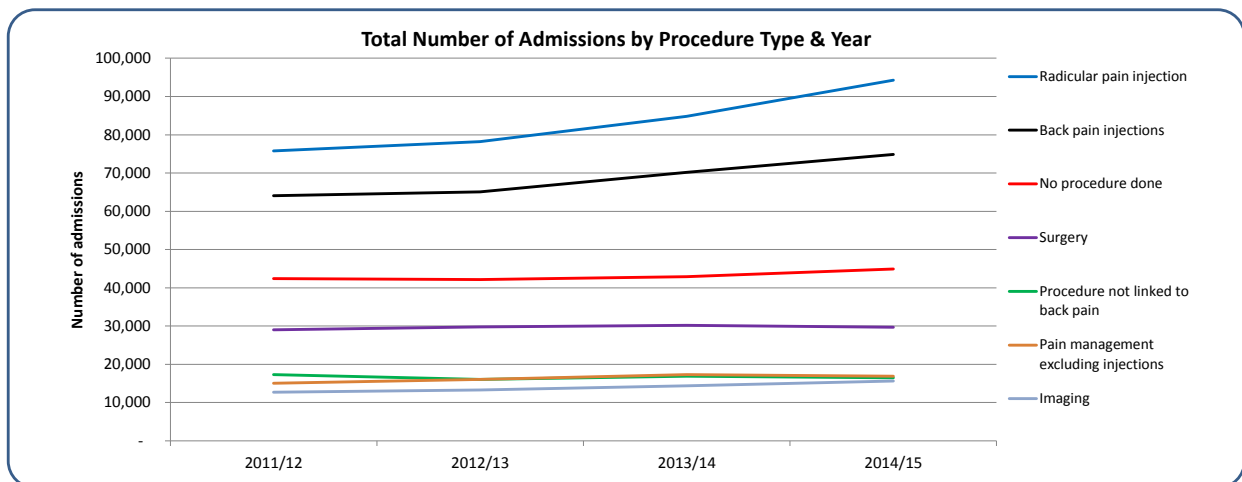
Airedale, Wharfedale & Craven and the 2 Bradford CCGs have the highest proportion of their activity going through Independent Sector Providers compared to the other CCGs in West Yorkshire.

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

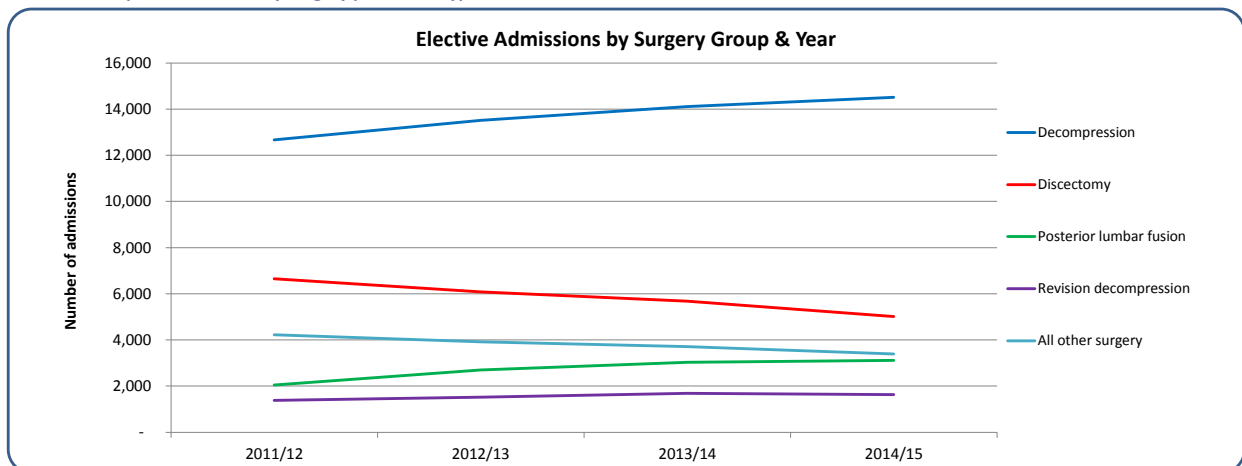
## Hospital Trust activity (national level)

### 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

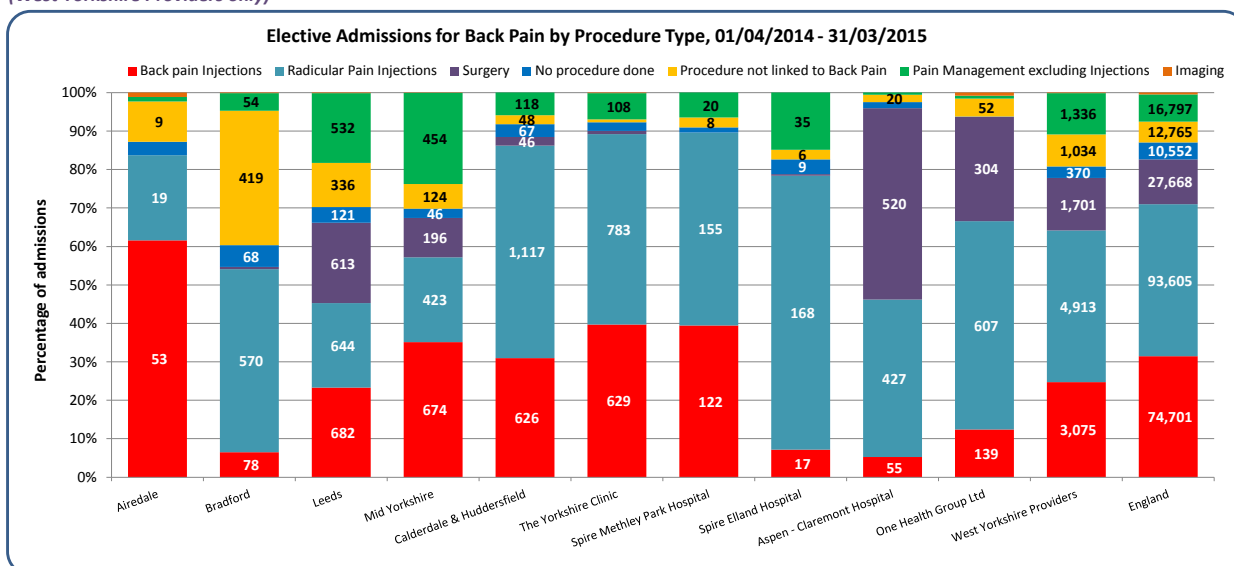
### 9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

#### 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%
<b>Total</b>	<b>134,448</b>	<b>102,808</b>	<b>237,256</b>	<b>100%</b>

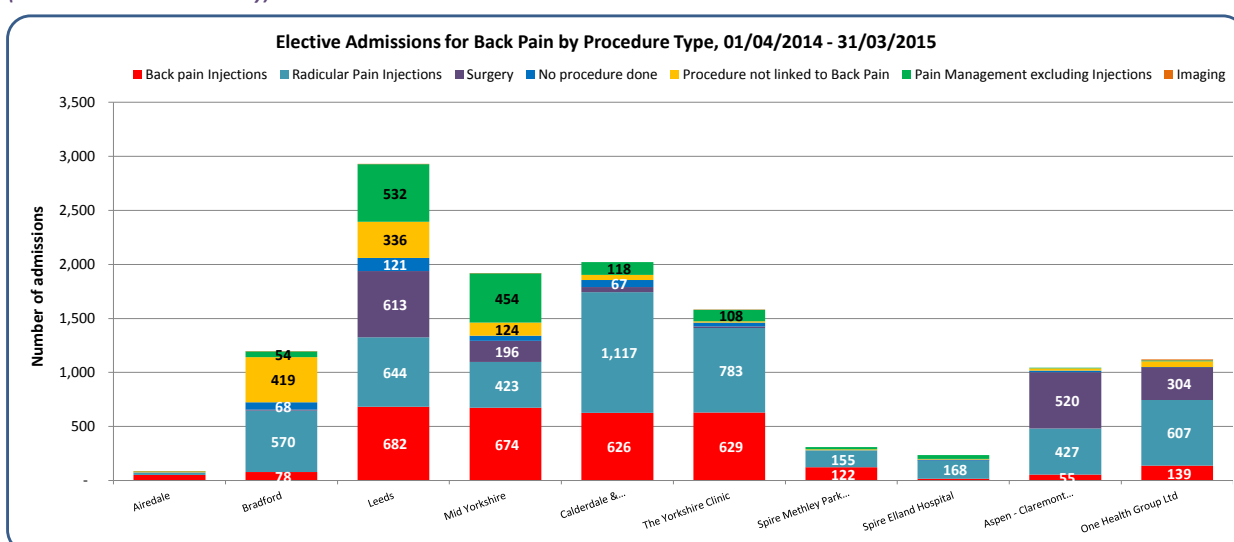
#### b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity)

(West Yorkshire Providers only)



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

(West Yorkshire 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 indicating that there are relatively few elective admissions where no procedure is undertaken (compared to 15-16% of all admission types - see previous sheet).

Leeds and Mid Yorkshire Trusts have a higher proportion of elective activity for surgery and pain management procedures other than injections than the England proportions. In contrast, Calderdale & Huddersfield Trust have a notably higher proportion of activity that is related to injections (86%) compared to the England proportion (approx 70%).

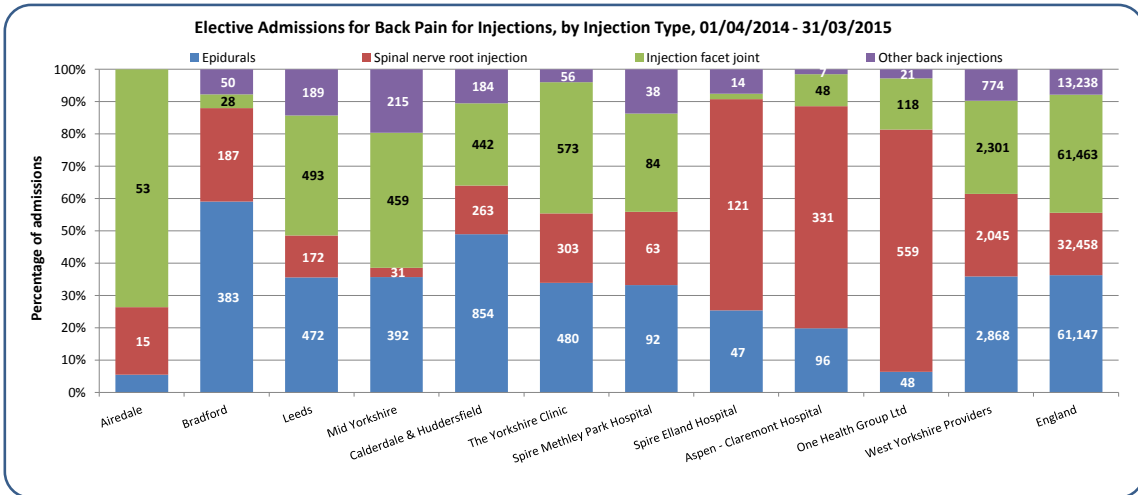
The data is shown in two ways, indicating both the proportion and amount of activity relating to each procedure.

## Hospital Trust activity

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

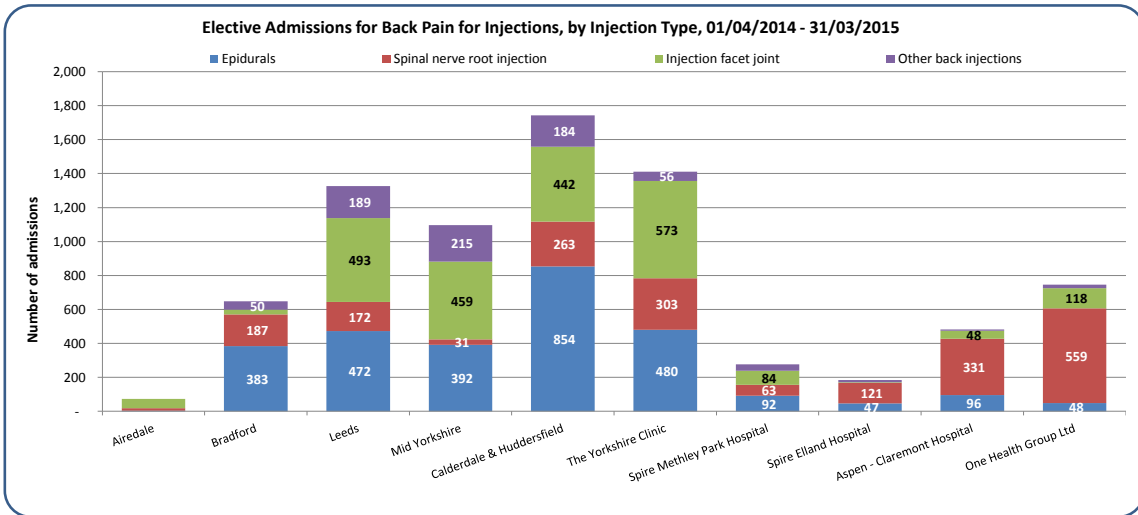
#### d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity)

(West Yorkshire Providers only)

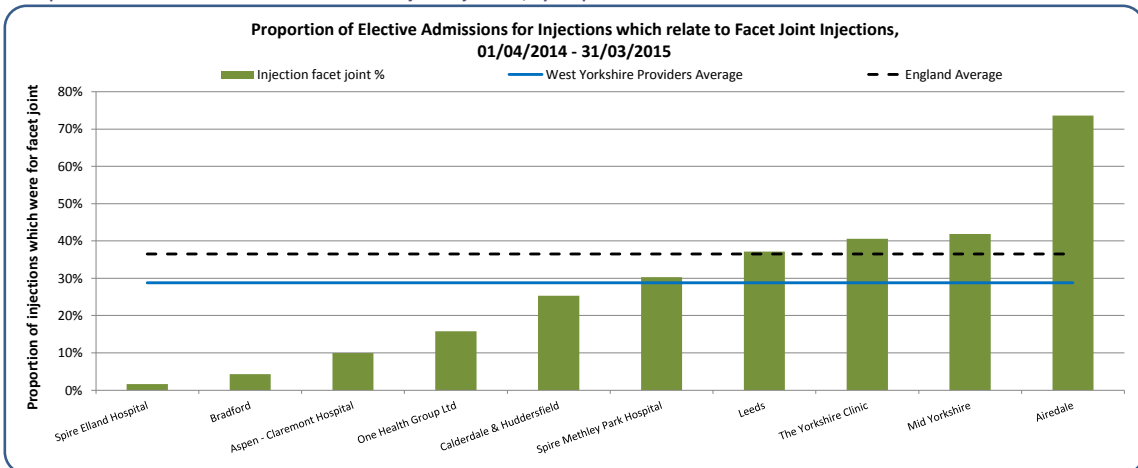


#### e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity)

(West Yorkshire Providers only)



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



#### What is the data telling us?

Epidurals and spinal nerve root are those most frequently done by providers for the West Yorkshire CCGs, constituting over 52% of injection activity which is higher than the England proportion (45%). These providers overall do lower proportion of lumbar facet joint injections (29%) compared to England overall (37%) but there is variation across the providers with NHS Trusts less likely to do spinal nerve root injections than the Independent Sector Providers.

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

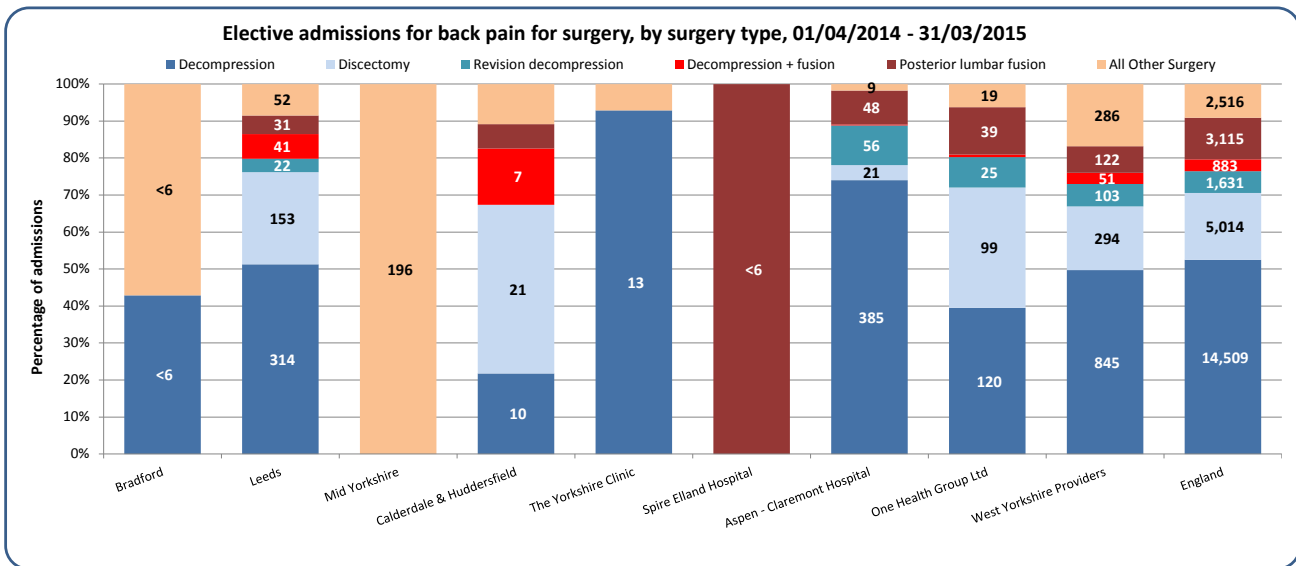
The proportion of facet joint injections done at Trust level ranges from 4% (Bradford Trust) to 74% (Airedale Trust - note this is a very low activity provider) compared to the England figure of 37%.

## Hospital Trust activity

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

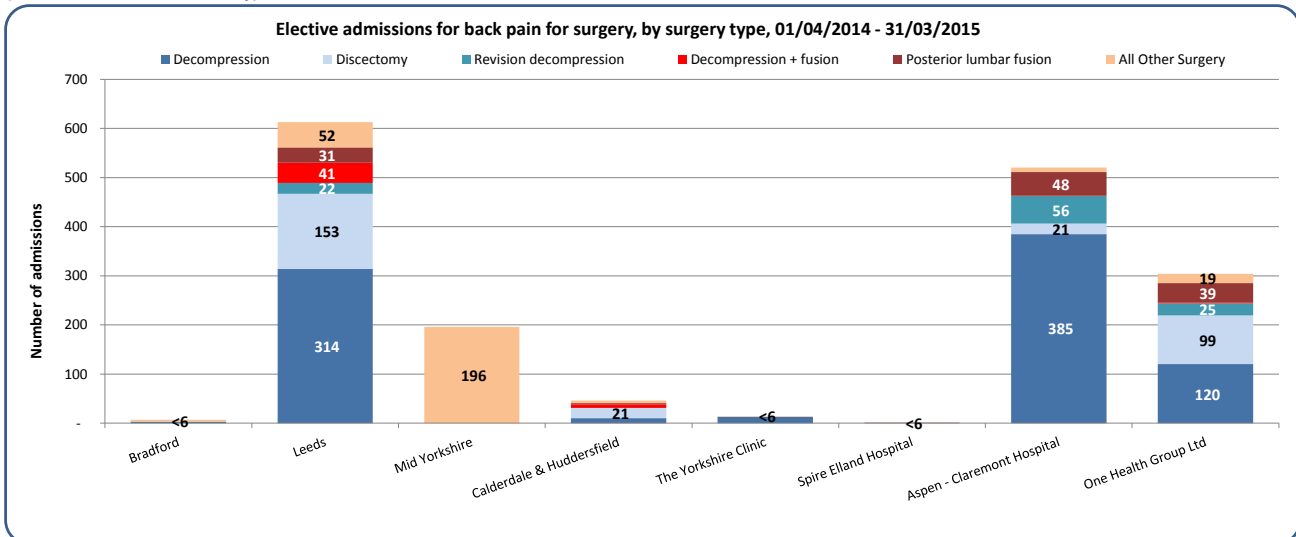
#### g. Number of elective admissions for surgery per hospital Trust, by surgery type (percentage of activity)

(West Yorkshire Providers only)



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

(West Yorkshire 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 providers used by the West Yorkshire CCGs.

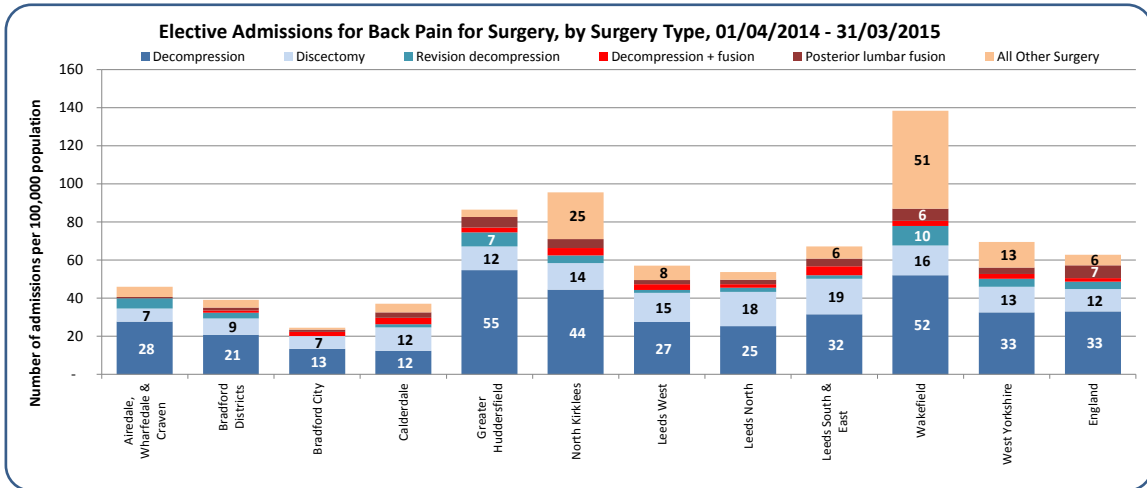
West Yorkshire CCG providers overall do a lower proportion of decompressions and a higher proportion of fusions and other types of surgery compared to the England profile. Leeds Trust is the highest volume provider for spinal surgery for the CCGs in this region and the proportion of the different types of surgery done is very similar to the England profile. It is notable that Mid Yorkshire does a high volume of spinal surgery that is not decompressions, discectomies or fusions.

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

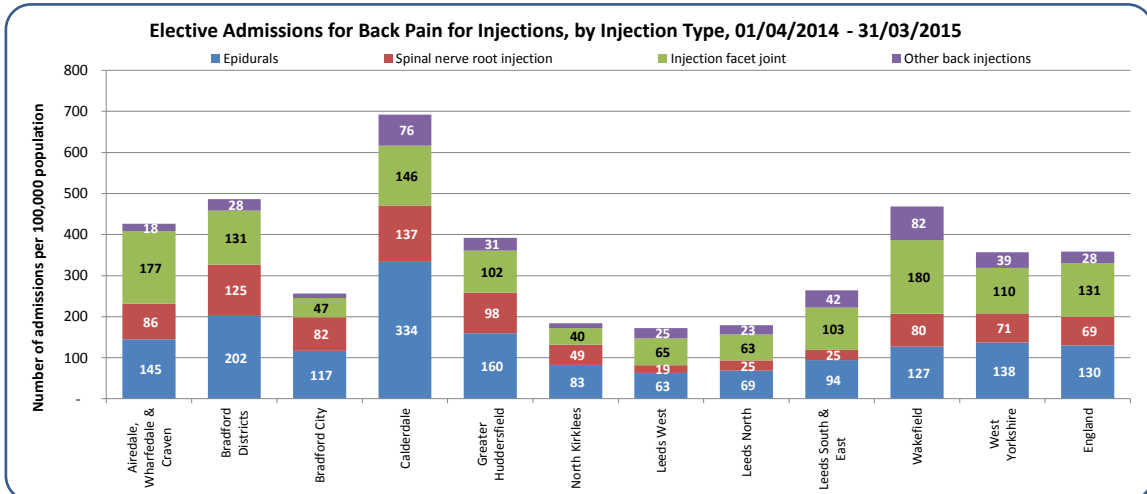
**CCG activity by back pain procedure group**

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

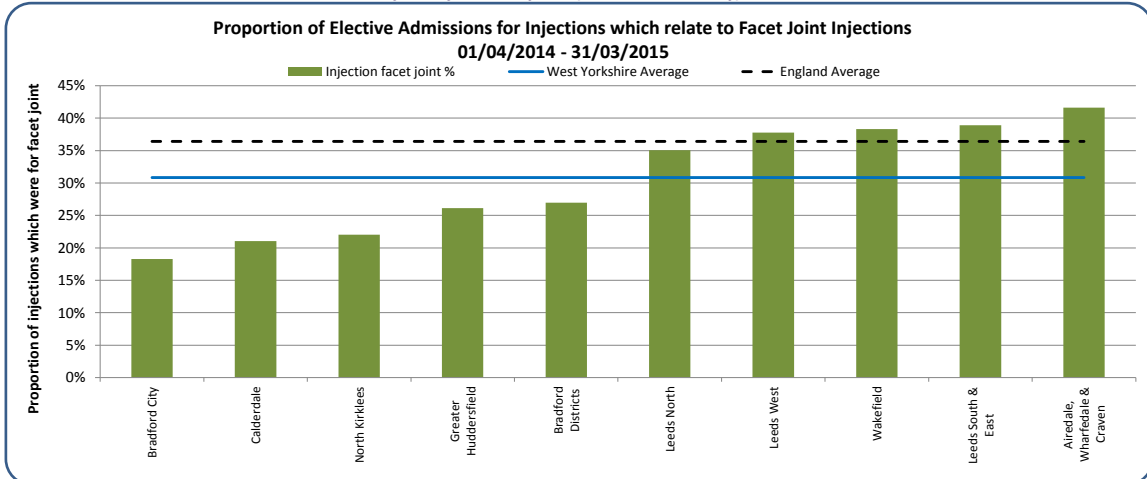
**a. Number of elective admissions for surgery per CCG, by surgery type (West Yorkshire only)**



**b. Number of elective admissions for injections per CCG, by injection type (West Yorkshire only)**



**c. Number of elective admissions for lumbar facet joint injections, by CCG (West Yorkshire 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 the South of West Midland CCGs, with chart 9b showing the same for injections.

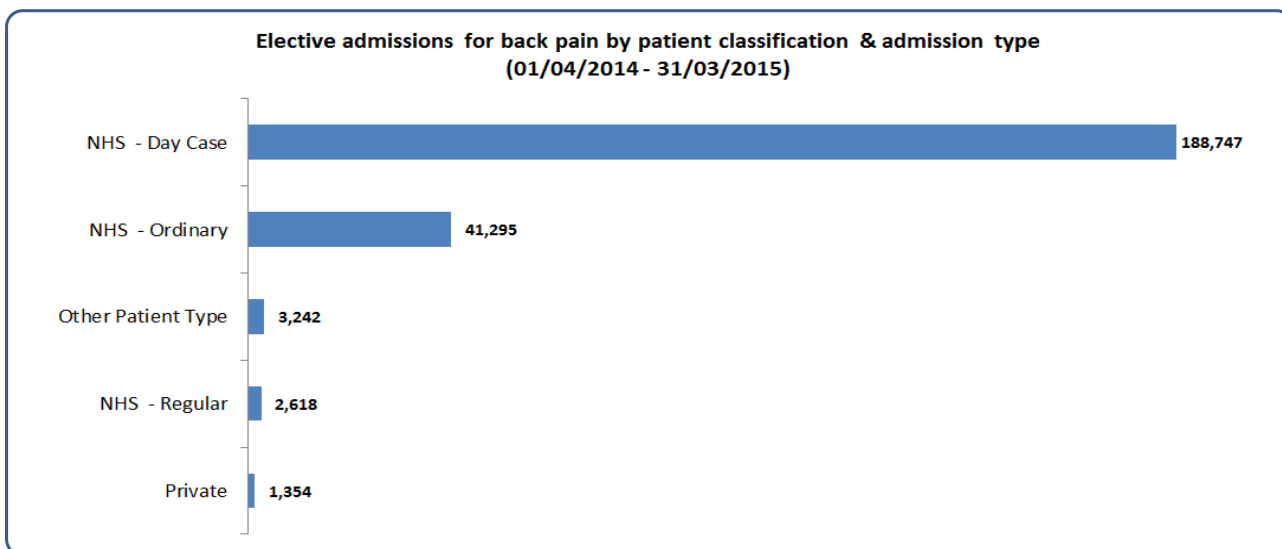
Overall West Yorkshire CCGs have a higher rate per 100,000 for spinal surgery with similar rates of injections compared to the England rates. It is notable that Wakefield CCGs have markedly higher rates of surgery that is not fusion, discectomy or decompression compared to the England rates (51 vs. 6 per 100,000).

Calderdale CCG has the highest rate of injections and is almost twice the regional and national rates per 100,000. The proportion of facet joint injections done at CCG level ranges from 18% (Bradford City) to 42% (Airedale, Wharfedale & Craven) 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



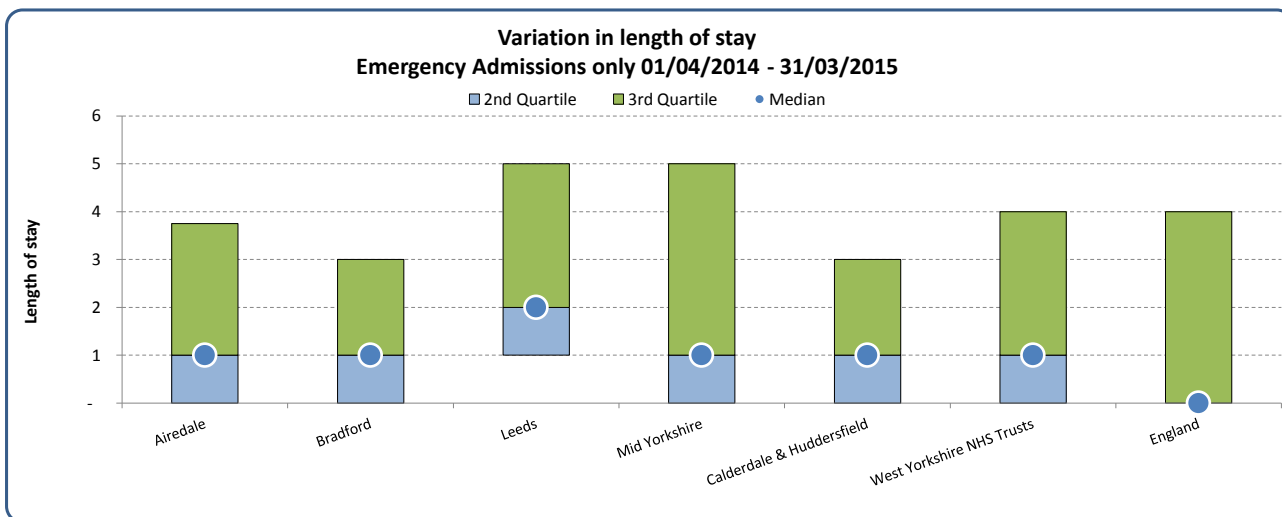
Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

#### 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

(West Yorkshire 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 NHS Trust providers used by the West Yorkshire CCGs and shows that there all Trusts have a median length of stay of 1 or 2 days, compared to the England average 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 (West Yorkshire FTs only)

Provider Name	Elective	Emergency	Other	Total
Leeds	£ 7,058,118	£ 1,627,844	£ 79,309	£ 8,765,271
Mid Yorkshire	£ 1,553,036	£ 534,514	£ 29,932	£ 2,117,483
Calderdale & Huddersfield	£ 1,415,480	£ 421,929	£ 6,731	£ 1,844,140
Bradford	£ 688,662	£ 317,236	£ 7,983	£ 1,013,881
Airedale	£ 49,246	£ 142,204	£ 1,115	£ 192,565
<b>Total</b>	<b>£ 10,764,543</b>	<b>£ 3,043,727</b>	<b>£ 125,071</b>	<b>£ 13,933,340</b>

#### b. Total Costs by Procedure Type (West Yorkshire 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
Leeds	£ 3,494,527	£ 445,283	£ 385,861	£ 427,526	£ 3,469,964	£ 223,018	£ 319,090	£ -	£ 8,765,271
Mid Yorkshire	£ 298,287	£ 298,712	£ 567,500	£ 325,258	£ 179,955	£ 208,393	£ 239,378	£ -	£ 2,117,483
Calderdale & Huddersfield	£ 202,502	£ 718,363	£ 373,359	£ 283,180	£ 64,613	£ 136,683	£ 65,441	£ -	£ 1,844,140
Bradford	£ 19,305	£ 375,008	£ 37,876	£ 155,182	£ 246,771	£ 144,418	£ 35,321	£ -	£ 1,013,881
Airedale	£ -	£ 13,921	£ 31,133	£ 81,489	£ 14,644	£ 50,911	£ 467	£ -	£ 192,565
<b>Total</b>	<b>£ 4,014,622</b>	<b>£ 1,851,286</b>	<b>£ 1,395,730</b>	<b>£ 1,272,635</b>	<b>£ 3,975,947</b>	<b>£ 763,424</b>	<b>£ 659,697</b>	<b>£ -</b>	<b>£ 13,933,340</b>

#### What is the data telling us?

Across all NHS Trust providers used by the West Yorkshire CCGs in 2014/15 the total cost to commissioners for back and radicular pain admissions was approximately £14 million, with 77% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the region.

The surgery procedures group accounts for almost 29% of the total cost of all procedures, and the cost of injections is an additional 23% of the total.

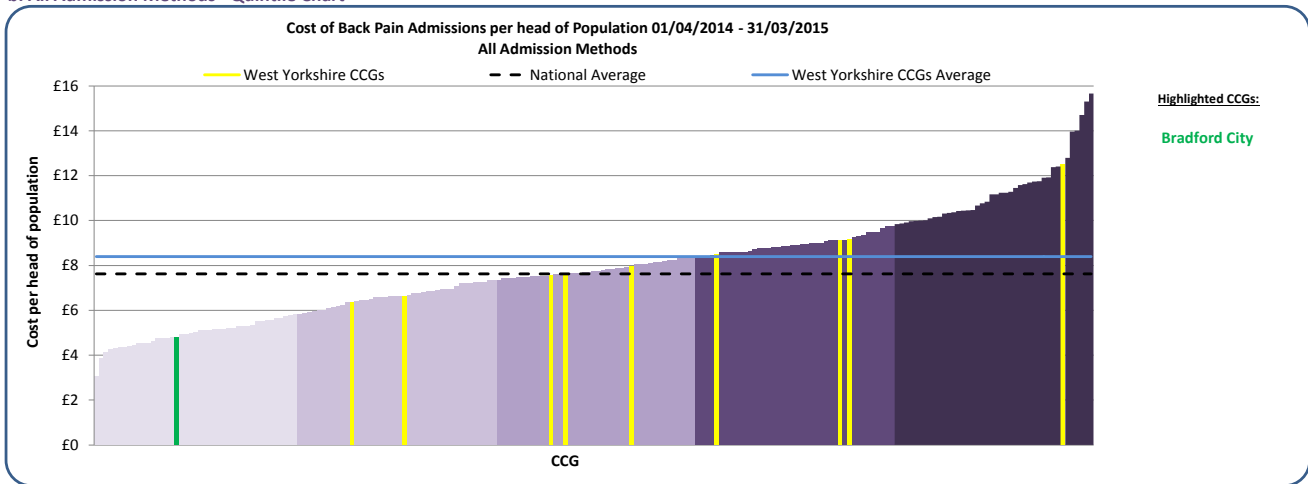
## CCG Activity Total Costs

### 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	
Bradford City	£ 4.81	£ 430,945	£ 4.04	£ 361,559	£ 0.75	£ 67,218	89,561
Airedale, Wharfedale & Craven	£ 6.36	£ 828,661	£ 4.92	£ 641,104	£ 1.39	£ 180,528	130,205
Leeds West	£ 6.63	£ 2,076,345	£ 5.30	£ 1,660,197	£ 1.33	£ 415,343	313,129
Bradford Districts	£ 7.55	£ 2,026,532	£ 5.90	£ 1,582,836	£ 1.56	£ 418,161	268,358
Leeds North	£ 7.62	£ 1,320,284	£ 5.49	£ 951,135	£ 2.07	£ 359,622	173,334
North Kirklees	£ 7.95	£ 1,198,166	£ 6.34	£ 955,159	£ 1.56	£ 235,538	150,685
Calderdale	£ 8.48	£ 1,508,159	£ 6.99	£ 1,244,460	£ 1.41	£ 250,010	177,922
Leeds South & East	£ 9.12	£ 1,995,862	£ 7.70	£ 1,685,746	£ 1.42	£ 310,116	218,822
Greater Huddersfield	£ 9.17	£ 1,844,560	£ 7.96	£ 1,601,372	£ 1.15	£ 231,319	201,126
Wakefield	£ 12.48	£ 3,743,602	£ 10.82	£ 3,247,890	£ 1.62	£ 485,515	300,082
<b>West Yorkshire Total</b>	<b>£ 8.39</b>	<b>£ 16,973,114</b>	<b>£ 6.89</b>	<b>£ 13,931,459</b>	<b>£ 1.46</b>	<b>£ 2,953,371</b>	<b>2,023,224</b>

#### 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
Wakefield	£ 1,432,428	£ 443,458	£ 594,313	£ 7,343	£ 556,299	£ 3,387	£ 210,661	£ -	£ 3,247,890
Leeds South & East	£ 593,173	£ 169,571	£ 184,889	£ 3,790	£ 644,631	£ -	£ 89,693	£ -	£ 1,685,746
Leeds West	£ 702,222	£ 170,900	£ 164,845	£ 10,361	£ 533,853	£ 825	£ 77,191	£ -	£ 1,660,197
Greater Huddersfield	£ 711,873	£ 329,721	£ 157,872	£ 39,018	£ 319,529	£ -	£ 43,360	£ -	£ 1,601,372
Bradford Districts	£ 344,161	£ 561,706	£ 235,188	£ 511	£ 373,152	£ 2,011	£ 66,108	£ -	£ 1,582,836
Calderdale	£ 275,973	£ 529,394	£ 224,916	£ 15,997	£ 139,683	£ -	£ 58,496	£ -	£ 1,244,460
North Kirklees	£ 483,700	£ 128,149	£ 48,997	£ 1,028	£ 247,890	£ 742	£ 44,653	£ -	£ 955,159
Leeds North	£ 291,799	£ 103,551	£ 88,918	£ 11,334	£ 384,600	£ 986	£ 69,947	£ -	£ 951,135
Airedale, Wharfedale & Craven	£ 223,727	£ 184,343	£ 140,798	£ 956	£ 64,682	£ 877	£ 25,721	£ -	£ 641,104
Bradford City	£ 78,234	£ 109,988	£ 26,004	£ 705	£ 142,477	£ -	£ 4,153	£ -	£ 361,559

#### What is the data telling us?

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

Wakefield CCG has the highest spend per head of population regionally (£12.48) driven mainly by high costs for elective admissions. Bradford City CCG has the lowest costs per head for both emergency and elective admissions regionally (£4.81) which is considerably lower than the national average.

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 for 4 CCGs in the region more was spent on injections compared to what is spent on surgery. This was most notable in Bradford City CCG, Bradford Districts CCG, Calderdale CCG and Airedale, Wharfedale and Craven CCG.

#### 14. Back & Radicular Pain Admissions Breakdown for the West Yorkshire 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 Types	Total
		Surgery	Injections	Other			
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	556	1,259	913	549	16	3,293
RWY	CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	46	1,731	230	372	<6	2,382
RXF	MID YORKSHIRE HOSPITALS NHS TRUST	192	1,055	616	448	<6	2,315
RAE	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	7	643	536	358	<6	1,546
NVC20	THE YORKSHIRE CLINIC	14	1,374	154	-	-	1,542
NTX01	ONE HEALTH GROUP LTD	84	242	19	-	-	345
NYW04	ASPEN - CLAREMONT HOSPITAL	191	102	13	-	-	306
NT350	SPIRE METHLEY PARK HOSPITAL	-	264	31	-	-	295
RCF	AIREDALE NHS FOUNDATION TRUST	-	70	11	160	<6	242
NT348	SPIRE ELLAND HOSPITAL	<6	184	50	-	-	235
RHQ	SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	75	27	24	10	-	136
NEQ01	WRS PMS PLUS LIMITED	-	75	9	-	-	84
RP5	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST	9	36	10	6	-	61
NTP23	ECCLESHILL NHS TREATMENT CENTRE	-	35	<6	-	-	38
NT447	BMI THE DUCHY HOSPITAL	33	-	<6	-	-	37
NT497	BMI GISBURNE PARK HOSPITAL	8	26	<6	-	-	37
RCD	HARROGATE AND DISTRICT NHS FOUNDATION TRUST	-	<6	-	26	-	30
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	-	19	<6	<6	-	25
RCB	YORK TEACHING HOSPITAL NHS FOUNDATION TRUST	-	7	10	6	-	23
RM3	SALFORD ROYAL NHS FOUNDATION TRUST	6	11	<6	<6	-	23
NEY01	PIONEER HEALTHCARE LTD - CLAREMONT HOSPITAL	14	<6	<6	-	-	20
NVC14	PARK HILL HOSPITAL	<6	8	<6	-	-	12
RFF	BARNESLEY HOSPITAL NHS FOUNDATION TRUST	-	-	-	9	-	9
RXN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	<6	<6	<6	<6	-	9
NT420	BMI - THE HIGHFIELD HOSPITAL	8	<6	-	-	-	9
RWV	NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	<6	<6	-	<6	-	6
RXR	EAST LANCASHIRE HOSPITALS NHS TRUST	-	<6	-	<6	-	6
RTR	SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	<6	-	<6	<6	-	<6
NT403	BMI - THE BEARDWOOD HOSPITAL	-	<6	<6	-	-	<6
RJL	NORTHERN LINCOLNSHIRE AND GOOLE NHS FOUNDATION TRUST	-	<6	<6	-	-	<6
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	-	-	<6
RTX	UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS FOUNDATION TRUST	-	<6	<6	<6	-	<6
RW3	CENTRAL MANCHESTER UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RWA	HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	-	<6	<6	-	-	<6
RWJ	STOCKPORT NHS FOUNDATION TRUST	<6	<6	-	<6	-	<6
NY601	PAIN MANAGEMENT SOLUTIONS - OAKS PARK PCC	-	<6	<6	-	-	<6
RMC	BOLTON NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RNS	NORTHAMPTON GENERAL HOSPITAL NHS TRUST	-	<6	-	<6	-	<6
RTD	THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	<6	-	<6	<6	-	<6
RX1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	-	-	<6	<6	-	<6
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	<6	-	<6	-	-	<6
RAS	THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RFR	THE ROTHERHAM NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RKB	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	<6	-	-	-	<6	<6
RM2	UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RTF	NORTHUMBRIA HEALTHCARE NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
NT440	BMI - THORNBURY HOSPITAL	<6	-	-	-	-	<6
NT448	BMI THE HUDDERSFIELD HOSPITAL	-	<6	-	-	-	<6
NVC07	FULWOOD HALL HOSPITAL	<6	-	<6	-	-	<6
RAL	ROYAL FREE LONDON NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RBV	THE CHRISTIE NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RET	THE WALTON CENTRE NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RFS	CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RJE	UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	-	-	-	<6	-	<6
RJZ	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RQX	HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RTE	GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	<6	-	-	-	-	<6
RVJ	NORTH BRISTOL NHS TRUST	<6	-	-	-	-	<6
RWP	WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST	-	-	-	<6	-	<6
RWW	WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RXW	SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	-	-	-	-	<6	<6
NT225	NUFFIELD HEALTH, LEEDS HOSPITAL	-	-	<6	-	-	<6
NT401	BMI - THE ALEXANDRA HOSPITAL	-	-	<6	-	-	<6
NT424	BMI - THE MERIDEN HOSPITAL	-	-	<6	-	-	<6
<b>Total</b>		<b>1,259</b>	<b>7,211</b>	<b>2,675</b>	<b>1,982</b>	<b>28</b>	<b>13,155</b>



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Approved by Project Director	Helen Ridley
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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	30/06/2016	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?	