

## **North East Quality Observatory Service**

## **Back Pain Report**

## Hillingdon

**June 2016** North West London Region Showing CCG boundaries and main providers West Hertfordshire Royal Free London Royal National Orthopaedic Harrow BMI - Clementine Churchill Hospital Brent Hillingdon University College London Ealing St Mary's (Imperial College) Hammer Charing Cress (Imperial College) Hounslow NHS Providers Spinal Surgery > 30 Independent Sector Providers Spinal Surgery > 30 Ashford & St Peter's miles Contains National Statistics data (c) Crown copyright and database right 2014 Contains Ordnance Survey data (c) Crown copyright and database right 2014

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#### **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 West London 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 West London Region are:

- West Hertfordshire Hospitals NHS Trust
- Royal National Orthopaedic Hospital NHS Trust
- London North West Healthcare NHS Trust
- Royal Free London NHS Foundation Trust
- University College London Hospitals NHS Foundation Trust
- Imperial College Healthcare NHS Trust
- The Hillingdon Hospitals NHS Foundation Trust
- Chelsea & Westminster Hospital NHS Foundation Trust
- Ashford & St Peter's Hospitals NHS Foundation Trust

The Independent Sector Providers included for the North West London Region are:

• BMI - The Clementine Churchill Hospital

## Clinical Commissioning Group (CCG) activity summary

- 1. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 March 2015), summary
- a. Hospital admissions at national level, indicating back pain type and admission method

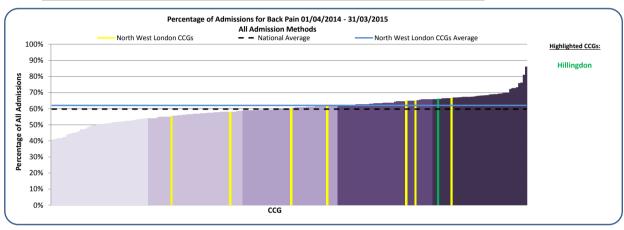
England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	237,256	56.7%	43.3%
Emergency	39,331	14,309	53,640	73.3%	26.7%
Other	771	951	1,722	44.8%	55.2%
Total	174,550	118,068	292,618	59.7%	40.3%

North West					
London CCGs	Back	Radicular	Total	% Back	% Radicular
Elective	3,770	2,734	6,504	58.0%	42.0%
Emergency	1,433	430	1,863	76.9%	23.1%
Other	12	25	37	32.4%	67.6%
Total	5,215	3,189	8,404	62.1%	37.9%

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)

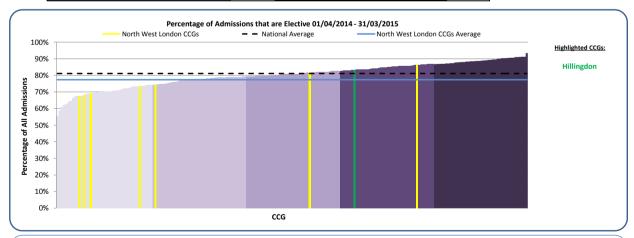
Brent	55.4%	Hammersmith & Fulham	64.6%
Harrow	58.0%	West London	65.1%
Ealing	60.1%	Hillingdon	66.1%
Central London (Westminster)	61.6%	Hounslow	66.8%
North West London CCGs	62.1%	England	59.8%



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

Hammersmith & Fulham	67.7%	Central London (Westminster)	74.5%
Ealing	68.4%	Brent	81.8%
Hounslow	69.3%	Hillingdon	83.4%
West London	73.6%	Harrow	86.2%
North West London CCGs	77.4%	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 8,404 (2.9%) of these for patients registered within the North West London 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 North West London CCGs the proportion of admissions for back pain ranges from 55% to 70%.

Nationally, approximately 81% of back and radicular pain admissions are elective, with the North West London CCGs having a lower proportion (77%). At a CCG level in North West London, the proportion of elective admissions for these populations ranges from 68% in Hammersmith & Fulham to 86% in Harrow.

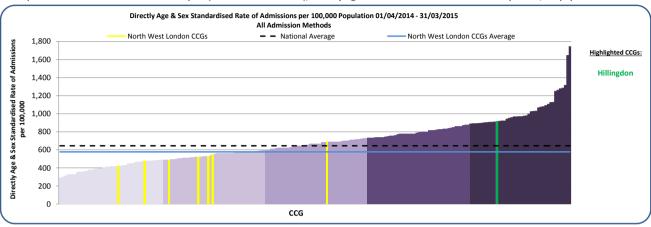
#### Clinical Commissioning Group (CCG) activity

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

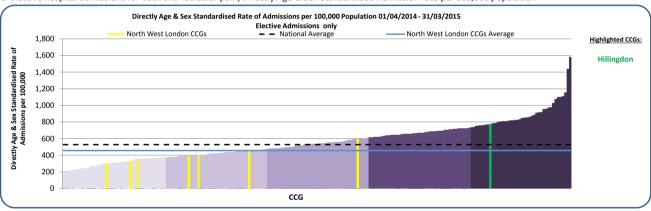
a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
Hillingdon	916.6	775.3	137.5	Central London (Westminster)	520.9	402.0	116.6
Harrow	685.9	595.7	86.2	Hounslow	492.0	355.4	135.4
Brent	552.5	454.8	95.0	Hammersmith & Fulham	477.2	334.0	142.9
West London	527.0	393.7	132.7	Ealing	420.9	298.0	120.3
North West London CCGs	577.0	456.0	118.6	England	645.6	526.5	115.4

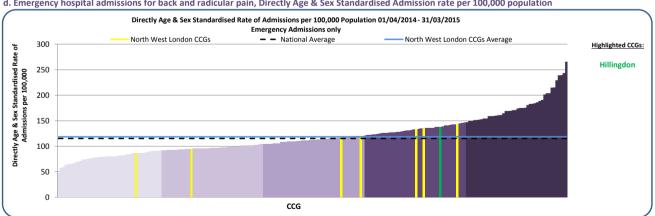
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



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?

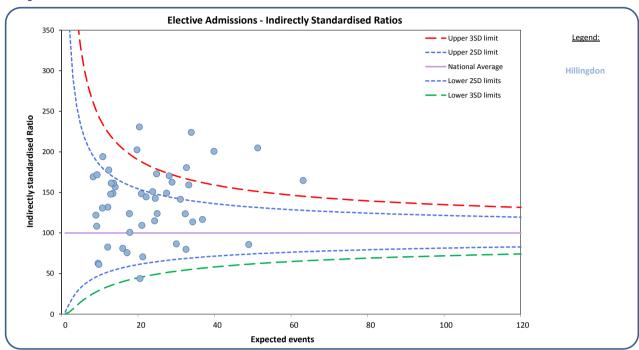
There is wide variation in elective admission rates across the CCGs within North West London with a 2.6-fold difference between the regional lowest (Ealing CCG) and the highest CCG for the region (Hillingdon CCG). For emergency admissions there is also wide variation across the CCGs in the region, ranging from the regional lowest (Harrow CCG) to the highest in the region (Hammersmith and Fulham CCG).

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

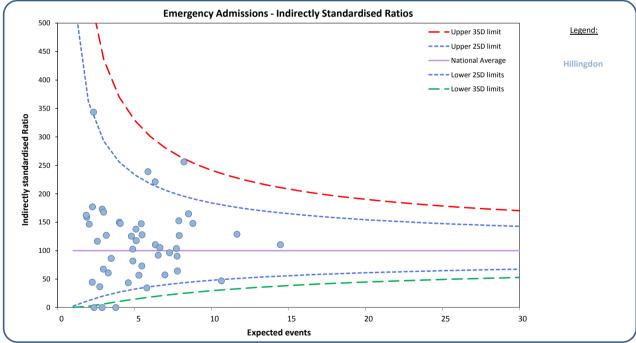
3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

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







## 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.

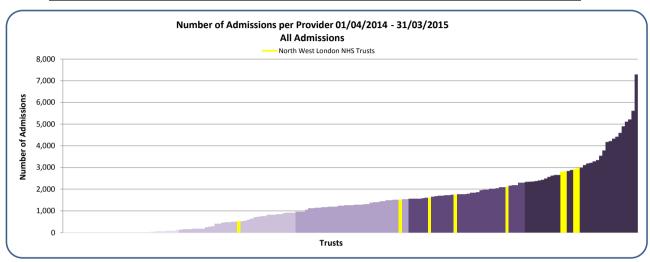
# 4. Indirectly Standardised Ratios for Elective & Emergency Admissions for Back & Radicular Pain, by GP Practice Hillingdon

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.

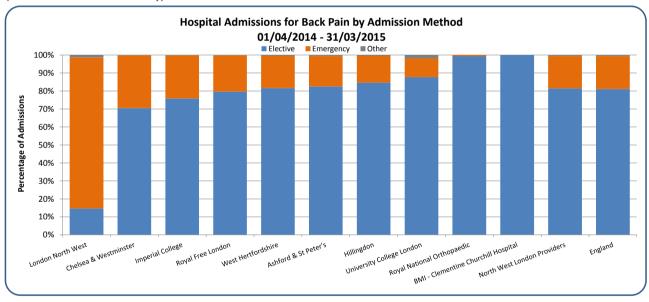
					Elective			Emergency				
Practice Code	Practice Name	ccg	Population 15+	Observed	Expected	Ratio	Observed	Expected	Ratio			
E86001	Mountwood Surgery	08G	9,316	42	48.95	85.81	<6	10.63	47.02			
E86003	Kingsway Surgery	08G	2,874	22	12.39	177.51	<6	2.89	173.02			
E86004	West Drayton Medical Centre	08G	7,797	43	36.85	116.70	14	8.50	164.72			
E86005	The Oakland Medical Centre	08G	5,509	48	28.15	170.53	7	6.34	110.41			
E86006	The Devonshire Lodge Practice	08G	6,265	40	32.35	123.65	7	7.26	96.36			
E86007	Harefield Practice	08G	7,827	80	39.88	200.63	13	8.78	147.99			
E86009	Belmont Medical Centre	08G	5,867	47	28.89	162.67	6	6.52	91.96			
E86010	Yiewsley Family Practice	08G	8,212	59	32.68	180.54	21	8.20	255.98			
E86011	Oxford Drive Medical Centre	08G	4,809	43	24.86	172.94	7	5.48	127.85			
E86012	Wood Lane Medical Centre	08G	9,804	105	51.27	204.79	15	11.64	128.84			
E86014	Cedars Medical Centre	08G	3,712	22	17.76	123.86	6	4.01	149.79			
E86015	Uxbridge Health Centre	08G	13,257	104	63.15	164.68	16	14.47	110.60			
E86016	The Pine Medical Centre	08G	4,652	31	20.88	148.49	6	4.78	125.40			
E86017	Hayes Medical Centre	08G	7,713	26	32.55	79.87	12	7.87	152.56			
E86018	Townfield Doctors Surgery	08G	7,281	53	33.27	159.29	7	7.76	90.26			
E86019	The Warren Practice	08G	5,657	41	27.48	149.21	14	6.33	221.12			
E86020	Dr K Anantha-Reddy's Practice	08G	3,692	13	16.03	81.08		3.77				
E86022	The Abbotsbury Practice	08G	5,689	26	30.04	86.56	7	6.64	105.47			
E86024	King Edwards Medical Centre	08G	4,602	31	25.02	123.92	8	5.43	147.41			
E86026	Parkview Surgery	08G	4,855	32	22.14	144.56	6	5.10	117.68			
E86027	Otterfield Medical Centre	08G	5,427	35	24.51	142.79	14	5.86	238.87			
E86028	Eastbury Surgery	08G	6,288	39	34.31	113.68	8	7.71	103.76			
E86029	Cedar Brook Practice	08G	7,818	76	33.93	223.98	10	7.89	126.69			
E86030	Brunel Medical Centre	08G	10,999	13	17.16	75.76	<6	7.78	64.30			
E86033	St Martins Medical Centre	08G	4,788	28	24.35	115.00	<6	5.46	73.20			
E86034	Church Road Surgery	08G	1,843	10	9.23	108.32	<6	2.05	146.53			
E86036	Hillingdon Health Centre	08G	6,028	44	31.08	141.58	<6	6.96	57.44			
E86038	Glendale House Surgery	08G	5,027	15	21.25	70.58	7	5.08	137.78			
E86041	Acre Surgery	08G	3,640	18	17.86	100.79	6	4.06	147.77			
E86042	Yiewsley Health Centre	08G	5,024	40	19.76	202.45	<6	4.88	81.89			
E86605	Ladygate Lane Medical Practice	08G	1,783	11	9.02	121.99	<6	1.89	158.69			
E86609	North Hyde Road Surgery	08G	2,488	6	9.57	62.70		2.36				
E86610	Willow Tree Surgery	08G	2,754	16	12.13	131.88	<6	2.73	36.58			
E86612	Shakespeare Health Centre	08G	3,417	20	13.45	148.69	<6	3.28	60.89			
E86615	Acrefield Surgery	08G	1,812	14	8.27	169.23	<6	1.85	162.28			
E86618	Carepoint Practice	08G	4,269	23	21.02	109.42	<6	4.87	102.61			
E86619	Wallasey Medical Centre	08G	1,976	6	9.80	61.21	<6	2.25	44.53			
E86620	West London Medical Centre	08G	3,366	22	14.03	156.77	<6	3.48	86.29			
E86622	Dr Pr Kanthan's Practice	08G	2,368	16	9.31	171.79	<6	2.26	177.00			
E86625	Kincora Doctors Surgery	08G	2,519	14	10.70	130.79	<6	2.57	116.55			
E86626	Queens Walk Medical Centre	08G	5,225	36	23.84	151.00	<6	5.28	56.86			
E86629	Dr Mlr Siddiqui's Practice	08G	2,742	19	12.86	147.80	<6	2.96	67.57			
E86632	Acorn Medical Centre	08G	4,824	47	20.37	230.71	<6	4.58	43.67			
E86635	The Evergreen Practice	08G	2,081	21	10.82	194.08	8	2.33	343.52			
E86637	Heathrow Medical Centre	08G	2,955	22	13.64	161.33	<6	2.98	167.74			
E86640	Southcote Clinic	08G	2,608	21	13.01	161.36		2.88				
Y00352	The Orchard Medical Practice C.I.C	08G	3,408	10	12.11	82.61	<6	3.15	126.81			
Y02812	Hayes Town Medical Centre	08G	6,458	9	20.52	43.87	<6	5.79	34.54			

- 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)

Royal Free London	2,981	Royal National Orthopaedic	1,739
University College London	2,922	Ashford & St Peter's	1,604
West Hertfordshire	2,827	Chelsea & Westminster	1,518
Imperial College	2,811	London North West	512
Hillingdon	2,109		
North West London NHS Trusts	19,023	England	251,444



b. Number of admissions per hospital Trust, by admission method (North West London 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 nine NHS Trusts where patients from North West London are admitted are in the highest quintile nationally. The Royal Free London, University College London and West Hertfordshire Trusts are located outside of the North West London CCGs.

The proportion of hospital activity for back pain which is classed as elective care for the North West London CCGs is similar to the England proportion. However at NHS Trust level the proportion varies between 16% at London North West Trust to 98% at Royal Orthopaedic Hospital. All NHS activity at the independent providers is classed as elective.

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 West London Providers only)

	Pain						
	Management &	Trauma &	Spinal Surgery	Interventional			
Provider Name	Anaesthetics	Orthopaedics	Service	Radiology	Neurosurgery	Other Functions	Total
West Hertfordshire	601	1,691	<6	-	-	11	2,303
Royal National Orthopaedic	604	24	1,037	-	-	63	1,728
London North West	47	<6	-	-	-	24	71
Royal Free London	1,196	1,002	-	-	-	176	2,374
University College London	828	<6	-	787	891	55	2,561
Imperial College	719	805	-	-	574	33	2,131
Hillingdon	1,782	<6	-	-	-	<6	1,782
Chelsea & Westminster	908	144	-	-	-	18	1,070
Ashford & St Peter's	1,156	161	-	-	-	7	1,324
BMI - Clementine Churchill Hospital	304	451	-	-	-	<6	755
Total	8,145	4,278	1,037	787	1,465	387	16,099

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 Royal National Orthopaedic Trust the highest volume of activity is recorded within Spinal Surgery Service. University College London Trust has the highest activity for Neurosurgery with very few admissions to Trauma & Orthopaedics. Imperial College has relatively high levels of admissions over Pain Management/Anaesthetics, Trauma & Orthopaedics and Neurosurgery.

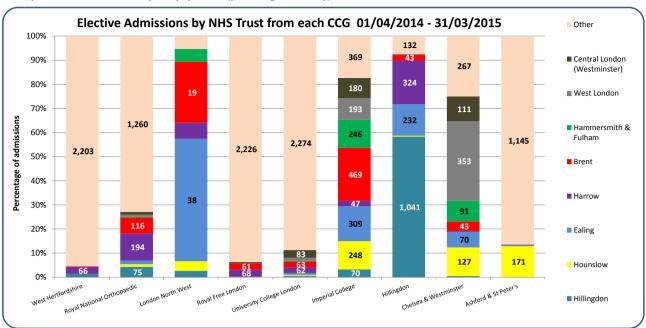
The second table shows the different types of injections being undertaken within each of the treatment function codes and demonstrates that nationally over 62% (104,751) of injections take place within Pain Management/Anaesthetics and 25% of injections are undertaken within Trauma and Orthopaedics.

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

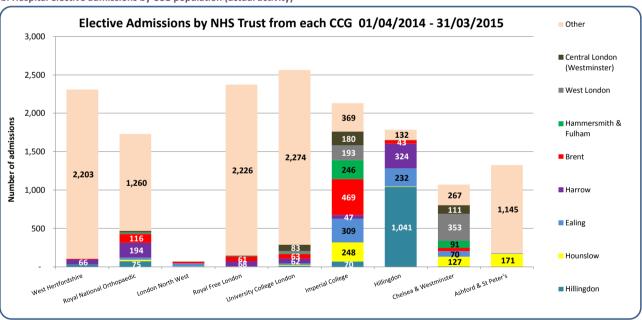
## **Hospital Trust activity from CCGs**

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

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



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



#### What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for back and radicular pain.

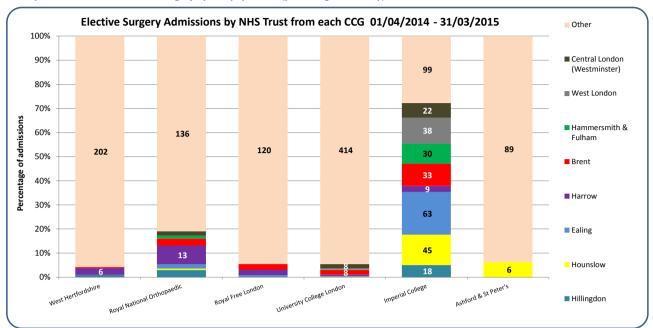
As most of the large volume providers are located outside of the North West London CCGs they admit patients from several different CCGs across the region and have high levels of activity coming from outside of the region. Imperial College and Hillingdon Trust are the highest volume providers and admit patients from several of the North West London CCGs. Although the Royal National Orthopaedic Trust is located in North West London, the majority of their patients are admitted from CCGs outside of this region.

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

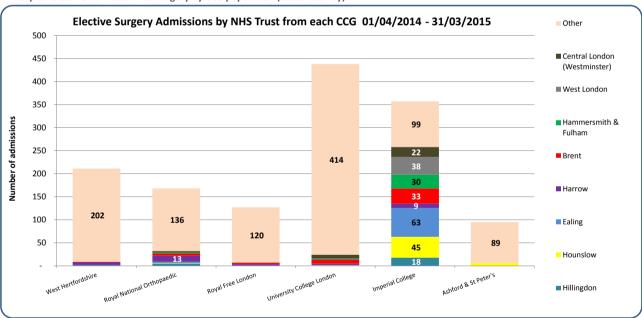
#### **Hospital Trust activity from CCGs**

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

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



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



#### What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for spinal surgery for back and radicular pain.

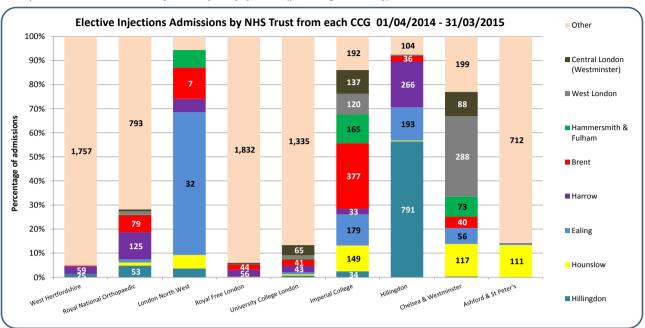
Imperial College Trust is the highest volume provider and admits patients from several of the North West London CCGs. Although the Royal National Orthopaedic Trust is located in the North West London region, the majority of their patients are admitted from CCGs outside of this region. All the other providers are located outside of the North West London CCGs and although these CCGs admit some patients to them for surgery, the majority of their activity coming from outside of the region.

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

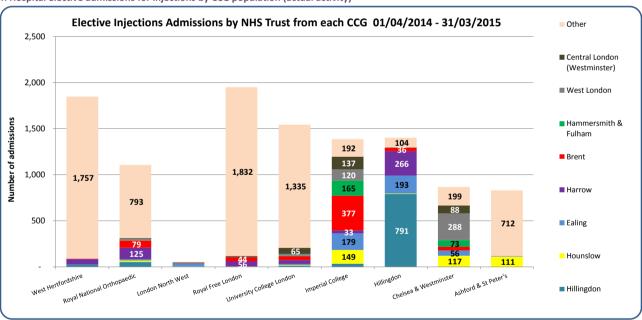
## **Hospital Trust activity from CCGs**

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

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



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



#### What is the data telling us?

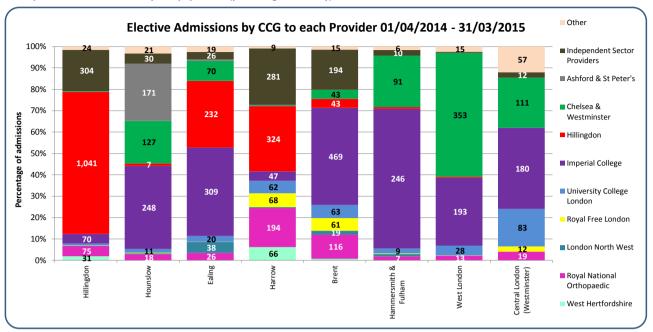
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for injections for back and radicular pain.

As most of the large volume providers are located outside of the North West London CCGs they admit patients from several different CCGs across the region and have high levels of activity coming from outside of the region. Imperial College and Hillingon Trust are the highest volume providers and admit patients from several of the North West London CCGs. Although the Royal National Orthopaedic Trust is located in North West London, the majority of their patients are admitted from CCGs outside of this region.

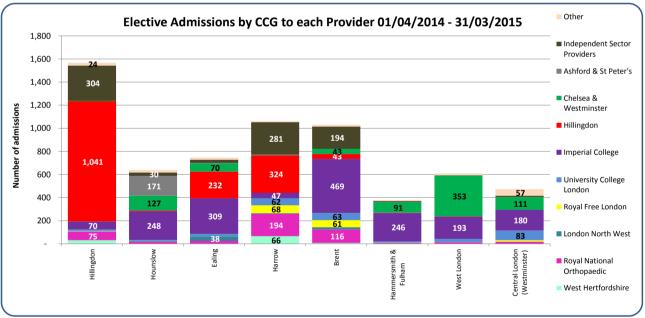
The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

## **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 hospital trusts to which their patients are admitted.

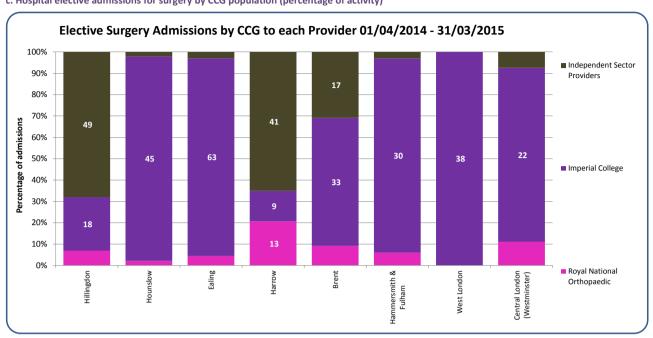
Activity is highest for Hillingdon CCGs and patients from this CCG were mostly admitted to Hillingdon Trust and Independent Sector Providers with some admissions also to Imperial College and Royal National Orthopaedic Trusts.

 $Harrow\ and\ Brent\ CCGs\ were\ also\ high\ users\ of\ Independent\ Sector\ Providers\ in\ North\ West\ London.$ 

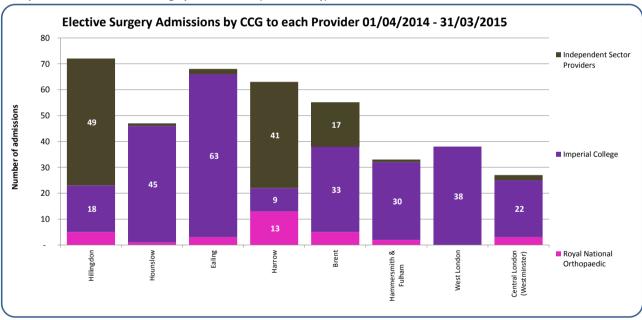
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **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.

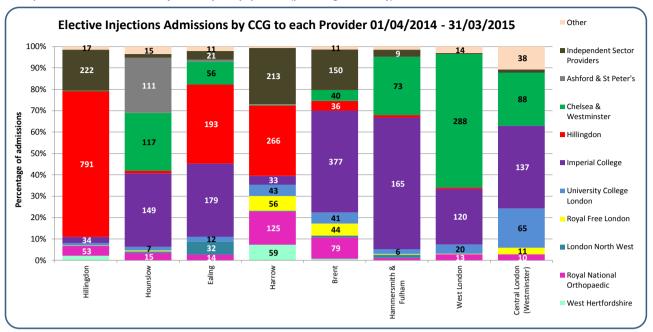
Activity is highest for Hillingdon CCGs and patients from this CCG were mostly admitted to Independent Sector Providers with some admissions also to Imperial College and Royal National Orthopaedic Trusts.

 $Harrow\ and\ Brent\ CCGs\ were\ also\ high\ users\ of\ Independent\ Sector\ activity\ in\ North\ West\ London.$ 

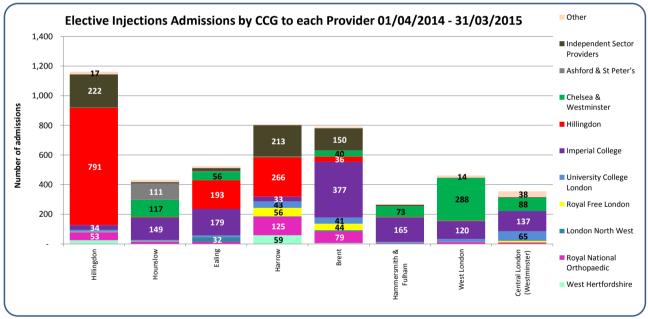
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **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.

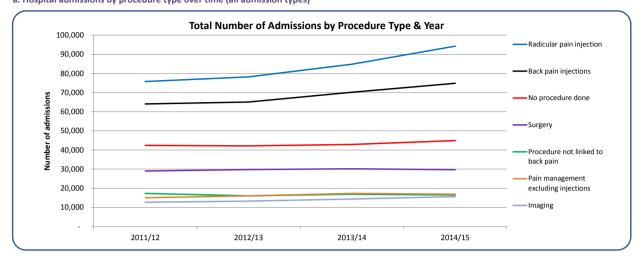
Activity is highest for Hillingdon CCGs and patients from this CCG were mostly admitted to Hillingdon Trust and Independent Sector Providers with some admissions also to Imperial College and Royal National Orthopaedic Trusts.

 $Harrow\ and\ Brent\ CCGs\ were\ also\ high\ users\ of\ Independent\ Sector\ Providers\ in\ North\ West\ London.$ 

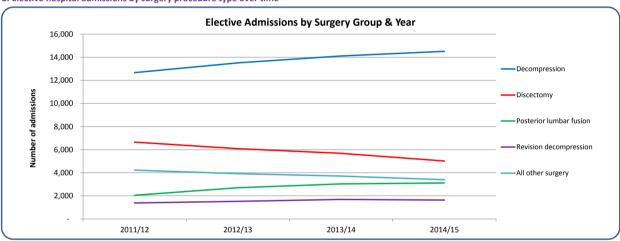
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

#### Hospital Trust activity (national level)

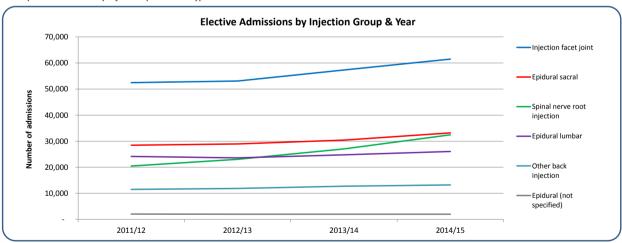
8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015) a. Hospital admissions by procedure type over time (all admission types)



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.

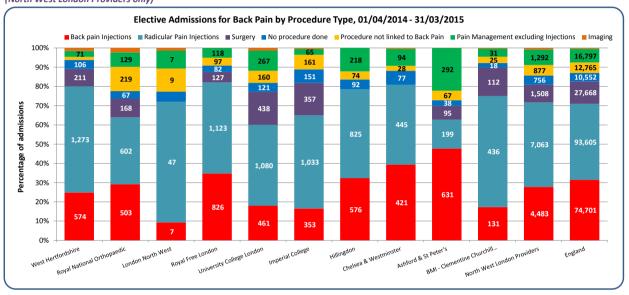
The charts in sections b and c show the elective admissions over time specifically for different groups of surgery procedures and injections.

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

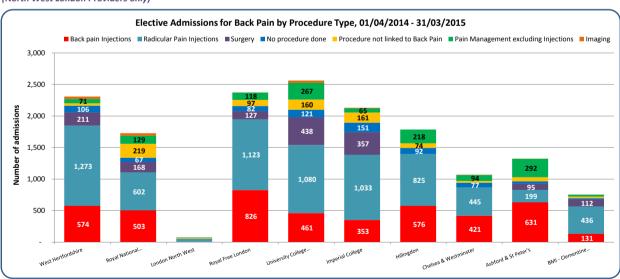
a. Elective hospital admissions by procedure type (national level including all providers)

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	1009

b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity) (North West London Providers only)



c. Number of elective admissions per hospital Trust, by procedure type (actual activity) (North West London Providers only)



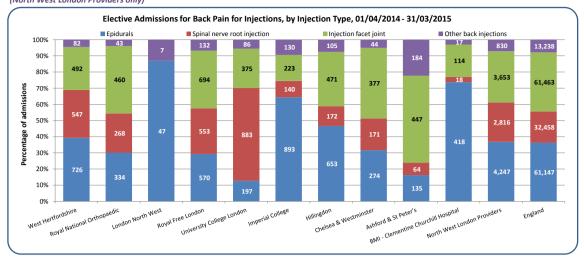
## What is the data telling us?

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.

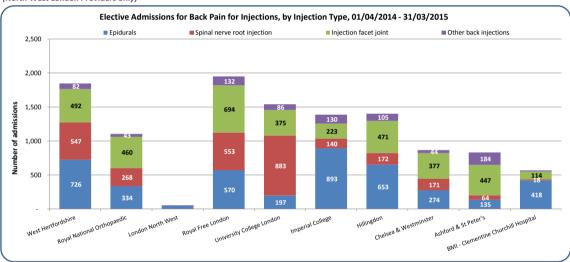
Four of the NHST Trust providers for the North West London CCGs have a higher proportion of elective activity for injections than the England rate (approx. 70%) and it is possible that the variation may be even greater due to differences in the point of delivery of care across hospital Trusts (for example 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.

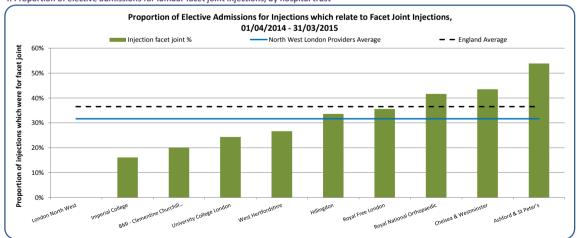
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity) (North West London Providers only)



e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity) (North West London Providers only)



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

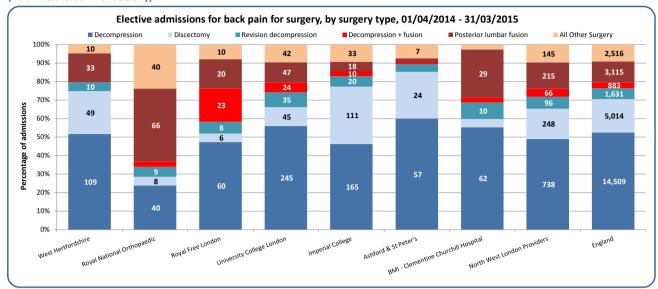


#### What is the data telling us?

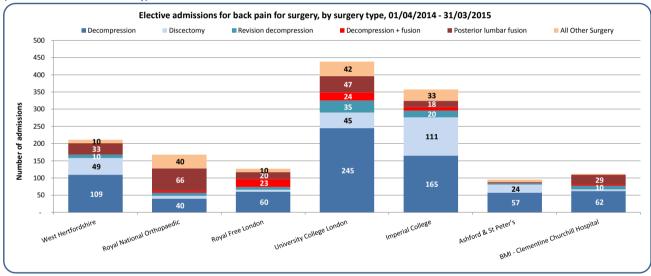
Epidurals and spinal nerve root are those most frequently done within North West London, constituting over 61% of injection activity which is higher than the England proportion (55%). North West London providers overall do lower rates of lumbar facet joint injections and higher rates of spinal nerve root injections. The data is shown in two ways, indicating both the proportion of overall activity and number of episodes for each Provider.

University College London Trust does a markedly higher number of spinal nerve root injections compared to all of the other providers. The proportion of facet joint injections done at an NHS Trust level ranges from 0% (London North West Trust) to 54% (Ashford & St Peter's Trust) compared to the England figure of 37%.

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 West London Providers only)



h. Number of elective admissions for surgery per hospital Trust, by surgery type (actual activity) (North West London Providers only)



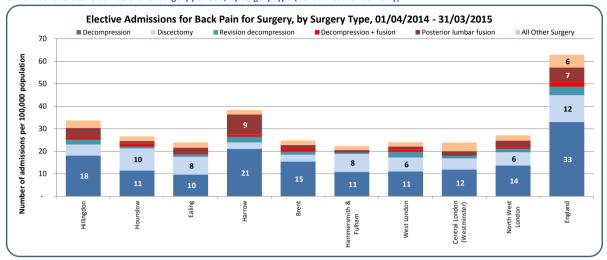
#### What is the data telling us?

The charts above show the range in activity relating specifically to elective admissions for surgery, by type of surgery, for the North West London providers. These providers overall do a lower proportion of decompressions and discectomies and higher proportion of fusions compared to the England profile. There are variations at Trust with the highest proportion of fusions at Royal National Orthopaedic Hospital compared to Imperial College Trust were a lower proportion of fusions are undertaken and a 40:60 split between discectomies and decompressions are done.

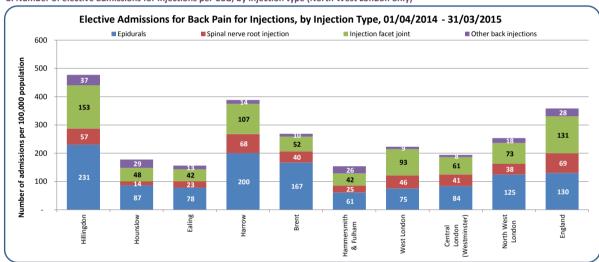
The data is shown in two ways, indicating both the proportion and amount of activity relating to each surgery type.

## CCG activity by back pain procedure group

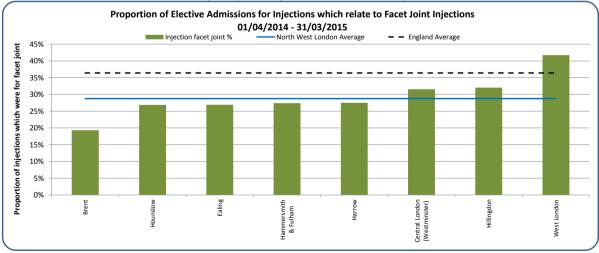
10. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Number of elective admissions for surgery per CCG, by surgery type (North West London only)



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



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



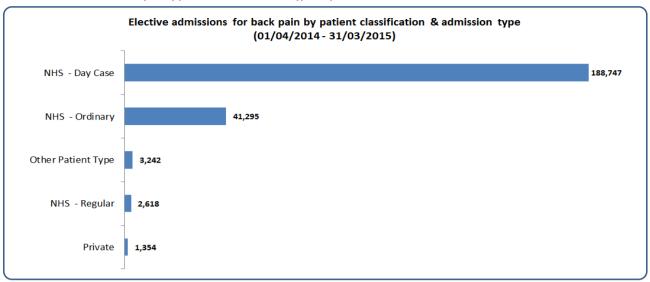
## What is the data telling us?

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 North West London CCGs have less than half the rate per 100,000 for spinal surgery as well as lower rates of injections compared to the England rates. Harrow CCG has the highest rates of surgery and Hillingdon CCG has the highest rates of injections.

The proportion of facet joint injections done at CCG level ranges from 19% (Brent) to 42% (West London) compared to the England figure of 37%.

- 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

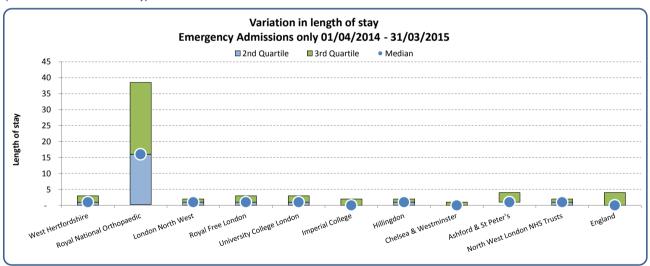


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

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 West London Trusts only)



## What is the data telling us?

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

The boxplot indicates the variation in length of stay for emergency admissions to the North West London Trusts and shows that the Royal National Orthopaedic Trusts has a significantly higher median length of stay (16 days), compared to the other providers for the North West London CCGs and 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 (North West London FTs only)

Provider Name	Ele	ctive	Eme	ergency	Other		Tot	:al
Imperial College	£	3,747,830	£	1,095,372	£	22,461	£	4,865,663
University College London	£	3,635,863	£	344,613	£	223,569	£	4,204,046
Royal National Orthopaedic	£	3,766,055	£	59,977	£	-	£	3,826,032
West Hertfordshire	£	2,645,187	£	641,454	£	34,600	£	3,321,242
Royal Free London	£	2,021,281	£	763,347	£	15,272	£	2,799,899
Ashford & St Peter's	£	1,218,598	£	366,205	£	29,743	£	1,614,545
Hillingdon	£	1,155,291	£	315,870	£	16,769	£	1,487,930
Chelsea & Westminster	£	823,065	£	403,806	£	6,476	£	1,233,347
London North West	£	54,383	£	443,310	£	13,476	£	511,169
Total	£	19,067,553	£	4,433,954	£	362,365	£	23,863,873

b. Total Costs by Procedure Type (North West London FTs only)

											Pain							
									Pro	Procedure not			Management					
			Radi	cular pain	Bac	k pain	No	procedure	link	ed to back			exclu	iding	Other Non-			
Provider Name	Sur	gery	Injed	tions	Inje	ctions	don	done pain		n	Imaging Injection		tions	Surgical		Total		
Imperial College	£	2,337,154	£	881,463	£	268,611	£	403,745	£	648,262	£	275,720	£	50,708	£	-	£	4,865,663
University College London	£	1,931,273	£	827,455	£	322,327	£	151,486	£	533,246	£	221,754	£	216,504	£	-	£	4,204,046
Royal National Orthopaedic	£	1,387,032	£	467,106	£	350,889	£	7,943	£	1,473,977	£	38,358	£	96,872	£	3,855	£	3,826,032
West Hertfordshire	£	1,150,320	£	962,734	£	422,899	£	409,143	£	102,061	£	219,746	£	54,339	£	-	£	3,321,242
Royal Free London	£	668,955	£	757,761	£	489,819	£	346,433	£	234,198	£	225,858	£	76,874	£	-	£	2,799,899
Ashford & St Peter's	£	409,593	£	144,971	£	457,073	£	212,528	£	101,087	£	119,565	£	168,909	£	818	£	1,614,545
Hillingdon	£	-	£	605,753	£	370,926	£	232,382	£	65,312	£	74,523	£	139,034	£	-	£	1,487,930
Chelsea & Westminster	£	-	£	352,948	£	316,300	£	291,081	£	44,173	£	106,438	£	122,407	£	-	£	1,233,347
London North West	£	5,420	£	45,868	£	8,548	£	294,363	£	24,141	£	127,130	£	5,699	£	-	£	511,169
Total	£	7,889,747	£	5,046,059	£	3,007,393	£	2,349,105	£	3,226,458	£	1,409,093	£	931,346	£	4,673	£	23,863,873

#### What is the data telling us?

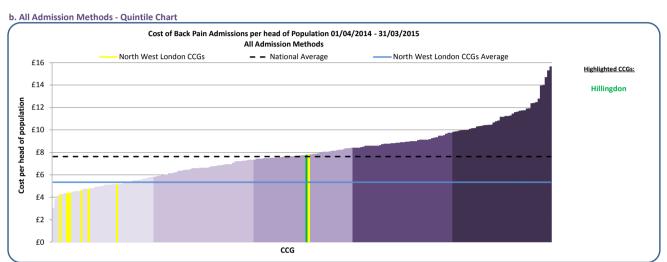
Across all providers NHS Trusts for the North West London CCGs in 2014/15 the total cost to commissioners for back and radicular pain admissions was approximately £23.9 million, with 80% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the North West London region.

The surgery procedures group accounts for almost 33% of the total cost of all procedures, and the cost of injections is an additional 34% 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

	All Admissions					Elective Admissions				Emergency				
													Registered	
	Cost per	head			Cost	t per head			Cost	per head			Population	
Responsible CCG Name	of Population		Total Cost		of Population		Total Cost		of Population		<b>Total Cost</b>		(Ages 15+)	
Ealing	£	4.24	£	1,450,723	£	3.03	£	1,038,319	£	1.14	£	389,185	342,541	
Hounslow	£	4.36	£	1,065,836	£	2.98	£	728,570	£	1.32	£	322,496	244,577	
Central London (Westminster)	£	4.40	£	812,667	£	3.55	£	654,338	£	0.83	£	153,340	184,559	
Hammersmith & Fulham	£	4.61	£	807,297	£	3.23	£	565,778	£	1.36	£	237,433	175,193	
West London	£	4.77	£	993,319	£	3.26	£	679,892	£	1.50	£	311,973	208,263	
Brent	£	5.17	£	1,542,643	£	4.03	£	1,202,807	£	1.04	£	311,801	298,473	
Hillingdon	£	7.76	£	1,887,003	£	6.33	£	1,539,614	£	1.35	£	327,588	243,325	
Harrow	£	7.81	£	1,630,020	£	6.41	£	1,338,128	£	1.32	£	275,564	208,803	
North West London Total	£	5.35	£	10,189,507	£	4.07	£	7,747,445	£	1.22	£	2,329,381	1,905,734	



## c. Elective Admissions only, by Procedure Type

Responsible CCG Name	Surg		Radic Inject	•		•	No pr	ocedure		edure not d to back	Imagir		exc	nagement	Other I			Total Cost
Hillingdon	£	430,261		503,138	_	302,592		584	£	189,202	_	6,730		107,106		-	£	1,539,614
Harrow	£	425,718	£	399,289	£	162,178	£	1,565	£	294,437	£	5,627	£	49,315	£	-	£	1,338,128
Brent	£	387,464	£	454,405	£	120,164	£	15,045	£	167,749	£	13,729	£	44,250	£	-	£	1,202,807
Ealing	£	412,464	£	255,546	£	132,654	£	6,560	£	170,706	£	5,570	£	54,818	£	-	£	1,038,319
Hounslow	£	267,194	£	193,893	£	134,903	£	18,629	£	65,480	£	5,111	£	43,359	£	-	£	728,570
West London	£	229,624	£	191,637	£	156,967	£	2,371	£	55,639	£	951	£	42,703	£	-	£	679,892
Central London (Westminster)	£	245,635	£	170,825	£	92,447	£	4,437	£	127,231	£	1,339	£	12,424	£	-	£	654,338
Hammersmith & Fulham	£	255,755	£	117,283	£	87,549	£	-	£	87,854	£	3,034	£	14,303	£	-	£	565,778

## What is the data telling us?

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

Harrow CCG has the highest spend per head of population regionally (£7.81) driven mainly by high costs for elective admissions. Ealing CCG has the lowest costs per head for both emergency and elective admissions (£4.24) in the region as well as being the lowest quintile nationally. All North West London CCGs with the exception of Harrow and Hillingdon CCGs are in the lowest quintile nationally for spend per head.

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 all except two CCGs in North West London (Ealing CCG and Hammersmith and Fulham CCG) more is spent on admissions for injections compared to what is spent on surgery.

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

	is Trust & Green=Independent Sector Provider)		tive Admissio		Emergency	Other Admission	
Code RYJ	Provider Name IMPERIAL COLLEGE HEALTHCARE NHS TRUST	Surgery 258	1,194	Other 310	Admissions 566	Types 6	Total 2,334
	THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	- 256	1,194	356	281	8	1,942
RQM	CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST	-	667	136	338	<6	1,144
NT411	BMI - THE CLEMENTINE CHURCHILL HOSPITAL	95	484	62	-	-	641
R1K	LONDON NORTH WEST HEALTHCARE NHS TRUST	-	51	20	403	6	480
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	32	312	124	<6	-	473
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	24	206	59	43	6	338
RAL RTK	ROYAL FREE LONDON NHS FOUNDATION TRUST  ASHFORD AND ST PETER'S HOSPITALS NHS FOUNDATION TRUST	7 6	117 118	24 55	60 16	<6	210 195
	WEST HERTFORDSHIRE HOSPITALS NHS TRUST	9	90	6	29	<6	135
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	<6	60	13	33	-	110
NT405	BMI - BISHOPS WOOD	13	53	10	-	-	76
NT416	BMI - HENDON HOSPITAL	-	35	10	-	-	45
RDU	FRIMLEY HEALTH NHS FOUNDATION TRUST	<6	14	8	6	-	30
NT422 NT431	BMI - THE LONDON INDEPENDENT HOSPITAL BMI - THE RUNNYMEDE HOSPITAL	<6	24	<6 24	-	-	29 24
R1H	BARTS HEALTH NHS TRUST	_	7	<6	9	_	21
	ST GEORGE'S UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	<6	<6	<6	7	<6	15
RJZ	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	<6	-	<6	7	-	13
	SPIRE BUSHEY HOSPITAL	<6	12	-	-	-	13
	ASPEN - HIGHGATE HOSPITAL	-	8	<6	-	-	13
RAX	KINGSTON HOSPITAL NHS FOUNDATION TRUST	-	9	<6	-	-	10
RKE RHW	THE WHITTINGTON HOSPITAL NHS TRUST ROYAL BERKSHIRE NHS FOUNDATION TRUST	<6 <6	<6	<6 <6	<6 <6	_	10 <6
RAJ	SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	<6	<6	-	<6	_	<6
	LUTON AND DUNSTABLE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RJ6	CROYDON HEALTH SERVICES NHS TRUST				<6	-	<6
RQ6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST				<6	-	<6
RTH	OXFORD UNIVERSITY HOSPITALS NHS TRUST	-	<6	-	<6	-	<6
RWH	EAST AND NORTH HERTFORDSHIRE NHS TRUST		.c		<6	-	<6
RAP RHM	NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	-	<6	-	<6 <6		<6 <6
RP4	GREAT ORMOND STREET HOSPITAL FOR CHILDREN NHS FOUNDATION TRUST	<6	_	_	<6	<6	<6
RQX	HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RXQ	BUCKINGHAMSHIRE HEALTHCARE NHS TRUST	-	<6	-	-	-	<6
NT428	BMI - THE PRINCESS MARGARET HOSPITAL	-	<6	-	-	-	<6
RA7	UNIVERSITY HOSPITALS BRISTOL NHS FOUNDATION TRUST				<6	-	<6
RF4	BARKING, HAVERING AND REDBRIDGE UNIVERSITY HOSPITALS NHS TRUST		-6		<6	<6	<6
RL1 RLQ	THE ROBERT JONES AND AGNES HUNT ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST WYE VALLEY NHS TRUST	-	<6	-	- <6	_	<6 <6
RM1	NORFOLK AND NORWICH UNIVERSITY HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
	THE ROYAL MARSDEN NHS FOUNDATION TRUST	-	<6	<6	-	-	<6
	THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST				<6	-	<6
RTP	SURREY AND SUSSEX HEALTHCARE NHS TRUST				<6	-	<6
	SPIRE THAMES VALLEY HOSPITAL	<6	<6	-	-	-	<6
	BMI - THE KINGS OAK HOSPITAL RIVERS HOSPITAL		<6 <6	-			<6 <6
	ASPEN - HOLLY HOUSE HOSPITAL	_	<6	_	-	_	<6
	ASPEN - PARKSIDE HOSPITAL	<6	-	-	-	-	<6
RA2	ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RA9	SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST				<6	-	<6
RBD	DORSET COUNTY HOSPITAL NHS FOUNDATION TRUST				<6	-	<6
RC1 RFF	BEDFORD HOSPITAL NHS TRUST BARNSLEY HOSPITAL NHS FOUNDATION TRUST				<6 <6	_	<6 <6
RGQ	IPSWICH HOSPITAL NHS TRUST				<6		<6
RHU	PORTSMOUTH HOSPITALS NHS TRUST				-	<6	<6
RJ2	LEWISHAM AND GREENWICH NHS TRUST				<6	-	<6
RL4	THE ROYAL WOLVERHAMPTON NHS TRUST				<6	-	<6
RM3	SALFORD ROYAL NHS FOUNDATION TRUST				<6	-	<6
RMC	BOLTON NHS FOUNDATION TRUST		.c		-	<6	<6
RN3 RN5	GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST		<6	-	- <6		<6 <6
	THE DUDLEY GROUP NHS FOUNDATION TRUST				<6	_	<6
	SALISBURY NHS FOUNDATION TRUST				<6	-	<6
RQ8	MID ESSEX HOSPITAL SERVICES NHS TRUST	-	<6	-	-	-	<6
RQQ	HINCHINGBROOKE HEALTH CARE NHS TRUST	-	<6	-	-	-	<6
RR8	LEEDS TEACHING HOSPITALS NHS TRUST				<6	-	<6
RRK	UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST				<6	-	<6
RT3 RVW	ROYAL BROMPTON & HAREFIELD NHS FOUNDATION TRUST NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	-	-	<6	- <6		<6 <6
	WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST				<6	_	<6
RXC	EAST SUSSEX HEALTHCARE NHS TRUST				<6	-	<6
RXP	COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST				<6	-	<6
	SPIRE RODING HOSPITAL	-	-	<6	-	-	<6
	SPIRE CLARE PARK HOSPITAL	-	<6	-	-	-	<6
	BMI - THE HAMPSHIRE CLINIC	-	<6	-	-	-	<6
	BMI - SHIRLEY OAKS HOSPITAL	-	-	<6	-	-	<6
	CIRCLE READING HOSPITAL THE BERKSHIRE INDEPENDENT HOSPITAL		<6 <6	-	-		<6 <6
Total	THE SEMISTIME MOSE EMPERT MOSE MAL	465	4,797	1,242	1,863	37	8,404
		+03	7,131	1,444	1,003	3/	0,40

DOCUMENT GOVERNANCE									
Document name	Back Pain Report								
Document type	Final								
Version	0.6								
Date	27/06/2016								
Document Classification Confidential									
Prepared on behalf of	GIRFT								
Created by Adam Fearing, Andrea Brown & Liz Lingard									
Approved by Epidemiologist	Liz Lingard								
Approved by Project Director	Helen Ridley								
Peer Reviewed by (if appropriate)									
Originating organisation	NEQOS								
Website of originating organisation	www.neqos.nhs.uk -								
	Please contact the NEQOS advisory service through this web link for further								
	information or to enquire about NEQOS undertaking similar work.								
Contact email address	neqos@nhs.net								
Public file location	N/A								
Internal file location	G:\Project Management\Project Mgt 15-16\Back Pain								

	VERSION CONTROL							
Version	Document Type	Date	Amendments	Ву				
0.1	First Draft	10/03/2016		Adam Fearing,				
				Liz Lingard				
0.2	Draft V2	15/03/2016	Amendments & Final QA	Adam Fearing,				
0.2	Diait V2		Amenaments & Final &A	Kayoung Goffe				
0.3	Draft V3	15/04/2016	Further minor amendments	Adam Fearing,				
0.3	Diait V3		Tuttler minor amendments	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?	