**A five-year overview of ophthalmology services across England to establish if there are variations in service provision.**

## Report by Harvey Walsh Limited.

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## About Harvey Walsh

## Harvey Walsh are healthcare informatics company specialising in population-based health data analysis, evaluation and outcomes.

## 1. Executive summary

### Introduction

Ophthalmology is the second biggest department in the NHS after Trauma and Orthopaedics. To understand this service more thoroughly and to see whether more or fewer patients are being treated, RNIB commissioned a piece of quantitative research using the Hospital Episode Statistics (HES) Database to examine variation in Ophthalmology service provision across England over the past five years.

The report aims to identify areas where there is unwarranted variation or access to services may be occurring. RNIB will use this information to campaign to ensure unwarranted variation is reduced.

### Key Findings

* The numbers of patients referred and treated in Ophthalmology in England over the past five years has increased year on year but there is a large variation across CCGs.
* The majority of activity is in the outpatient care setting. This has grown from 2,868,903 patients in 2012/13 to 3,185,632 in 2016/17. This activity is driven by more patients having more appointments.
* The variation seen across CCGs is not consistent in that there may be growth in one disease area and a decline in another.
* A large number of appointments are reported as being cancelled by the hospital, but this varies by disease and across the country.
* How activity is recorded in hospitals should be consistent across the country, but it is not. Hospital Episode Statistics coding varies between providers due to services shifting to different care settings and in the way these services are commissioned, thus making it difficult to draw full conclusions.

##

## 2. Methodology

A retrospective database analysis was conducted to establish the activity in Ophthalmology services over the past five years from April 2012 to April 2017. The analysis was carried out using Hospital Episode Statistics data, which provides information on the clinical coding of all admissions into NHS hospitals in England.

A search of this database was made to identify all activity in Ophthalmology outpatient and inpatient services for England and then split by CCG. This activity was then analysed by specific disease areas:

* Cataract
* Age-related macular degeneration
* Glaucoma
* Retinopathy
* Retinal Vein Occlusions

The purpose was to establish whether there have been declines in service and activity over the five-year period and whether there was observable variance across the CCGs in England.

Comparison between CCGs was done using rates per 100,000 population. This allows organisations of different population sizes to be compared. Growth is measured as Cumulative Annual Growth Rate (CAGR), a positive number indicates growth over five years and a negative indicates a decline.

Ophthalmology services can be set in outpatient clinics or as inpatient services. Activity recorded in the outpatient setting is referred to as an appointment, activity recorded as an inpatient care setting is referred to as a spell.

The NHS categorise these services under treatment speciality codes and this code is what has been used to extract the data for the analysis.

**What is HES?**

HES is a data warehouse containing details of all admissions, outpatient appointments and A&E attendances at NHS hospitals in England.

This data is collected during a patient's time at hospital and is submitted to allow hospitals to be paid for the care they deliver. HES data is designed to enable secondary use, that is used for non-clinical purposes, of this administrative data.

When a patient attends a hospital, there is a wide variety of information collected which is provided in HES. No identifiable data is available in HES, for example, the patient name, address and date of birth are not collected. Each individual record is given a unique HES Identifier known as the HESID, this helps prevent data being duplicated.

The HES data contains information on clinical diagnosis and also intervention, what has been done e.g. an injection into the eye. Using the clinical diagnosis fields, it is possible to split the diagnosis into individual diseases such as Glaucoma. For example, the code for Glaucoma is H40, therefore a count can be done on how many patients have been treated for Glaucoma by extracting the records which have this code.

HES is a records-based system that covers all NHS trusts in England, including acute hospitals, CCGs and mental health trusts. HES information is stored as a large collection of separate records - one for each period of care - in a secure data warehouse.

NHS Digital apply a strict statistical disclosure control in accordance with the HES protocol, to all published HES data. This suppresses small numbers to stop people identifying themselves and others, to ensure that patient confidentiality is maintained.

NHS Digital manages and provides licences to the HES Data. The analysis in this report has been undertaken by Harvey Walsh Limited who hold a licence from NHS Digital for holding and processing HES data.

**Who is HES for?**

HES provides data for a wide range of healthcare analysis for the NHS, government and others including:

* national bodies and regulators
* local commissioning organisations
* provider organisations
* researchers and commercial healthcare bodies
* Patients, service users and carers.

**What are the benefits of HES?**

* monitor trends and patterns in NHS hospital activity
* assess effective delivery of care
* support local service planning
* provide the basis for national indicators of clinical quality
* reveal health trends over time
* inform patient choice
* determine fair access to health care
* develop, monitor and evaluate government policy
* support NHS and parliamentary accountability

**How accurate is HES?**

The accuracy and validation of HES is undertaken by NHS Digital. There are undoubtedly errors in HES as there are in any data set but it is the data that NHS England and NHS Bodies use to monitor outcomes and activity.

Link to the document “Data Quality checks Performed on SUS and HES Data”. NHS Digital (2016):

<http://content.digital.nhs.uk/media/13655/Data-quality-checks-performed-on-SUS-and-HES-data/pdf/HESDQ_In_002_Data_quality_checks_performed_on_SUS_and_HES_data.pdf>

**Why can there be inaccuracies in the data?**

There can be inaccuracies in the data because of:

* coding errors
* submission errors or omissions
* non-mandatory fields

Also, not all services provided by the NHS may be processed through this system, they may instead be provided by a private provider on behalf of the NHS or through a direct contract.

However, HES is still reliable in providing an overview of trends and variance but no conclusions should be drawn on organisations who are outliers as there may be genuine reasons why their data may be different.

##

## 3. Results

### 3.1 General Ophthalmology Activity

Analysis of all activity within Ophthalmology over the past 5 years has shown a year on year increase in both patient numbers and activity. Ophthalmology is the second largest department in the NHS, the costs for activity in 2016/2017 was £1,435,097,459 and increase of approximately £332 million since 2012. See Tables 1 and 2 below (data is also presented in chart format, see Charts 1 and 2 below).

**Table 1: General ophthalmology activity total patients and total spells**

|  |
| --- |
| **INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase in activity compared to the previous year** | **Percentage increase in activity compared to the previous year** |
| 2011 | 2,887,173 | 8,758,826 |  |   |
| 2012 | 2,960,778 | 8,930,249 | 171,423 | 2.0% |
| 2013 | 2,967,235 | 9,342,000 | 411,751 | 4.6% |
| 2014 | 3,041,765 | 9,676,621 | 334,621 | 3.6% |
| 2015 | 3,110,676 | 9,931,660 | 255,039 | 2.6% |
| 2016 | 3,207,658 | 10,359,872 | 428,212 | 4.3% |

Note: ‘Total patients’ is distinct in combined – the total of inpatients and outpatients will be greater than total as in the split-out table a patient is distinct in each care setting.

**Table 2: General ophthalmology inpatient and outpatient activity**

|  |  |  |
| --- | --- | --- |
|  | **INPATIENTS** | **OUTPATIENTS** |
| **HES Year** | **Total Patients** | **Total Spells** | **Total Patients** | **Total Appts** |
| 2011 | 427,465 | 606,922 | 2,868,903 | 8,151,904 |
| 2012 | 430,563 | 618,769 | 2,940,065 | 8,311,480 |
| 2013 | 463,561 | 663,935 | 2,947,460 | 8,678,065 |
| 2014 | 487,943 | 715,689 | 3,022,611 | 8,960,932 |
| 2015 | 486,338 | 716,456 | 3,091,943 | 9,215,204 |
| 2016 | 491,995 | 710,259 | 3,185,632 | 9,649,613 |

The growth is being driven primarily by outpatient’s activity, so although the actual number of patients has grown year on year, these patients are also having more appointments, and this is driving up the activity from an average of 3.03 appointments per patient in 2011/12 to 3.23 appointments per patient in 2016/17.

**Chart 1: General ophthalmology activity inpatient and outpatient activity - total patients and totals spells**

**Chart 2: General ophthalmology activity** **percentage increase in activity compared to the previous year**

When this data is analysed by CCG level, variation can be seen with not all CCGs showing a growth in patients and activity (see Tables 3 and 4 below).

**Table 3: The top 20 CCGs in terms of cumulative growth in activity in Ophthalmology from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 08G | NHS Hillingdon CCG | 11.5% |
| 06H | NHS Cambridgeshire and Peterborough CCG | 9.4% |
| 04F | NHS Milton Keynes CCG | 8.9% |
| 99D | NHS South Lincolnshire CCG | 7.7% |
| 99H | NHS Surrey Downs CCG | 7.3% |
| 06K | NHS East and North Hertfordshire CCG | 7.2% |
| 01D | NHS Heywood, Middleton & Rochdale CCG | 6.3% |
| 07H | NHS West Essex CCG | 6.2% |
| 01X | NHS St Helens CCG | 6.1% |
| 11J | NHS Dorset CCG | 5.6% |
| 02D | NHS Vale Royal CCG | 5.4% |
| 01K | NHS Lancashire North CCG | 5.3% |
| 09X | NHS Horsham and Mid Sussex CCG | 5.2% |
| 01R | NHS South Cheshire CCG | 5.2% |
| 10V | NHS South Eastern Hampshire CCG | 4.9% |
| 04X | NHS Birmingham South and Central CCG | 4.9% |
| 09G | NHS Coastal West Sussex CCG | 4.8% |
| 09Y | NHS North West Surrey CCG | 4.7% |
| 11A | NHS West Hampshire CCG | 4.5% |
| 07Q | NHS Bromley CCG | 4.5% |

**Table 4: The top 20 CCGs with a cumulative decline in activity in Ophthalmology from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 01E | NHS Greater Preston CCG | -6.0% |
| 00X | NHS Chorley and South Ribble CCG | -5.0% |
| 07X | NHS Enfield CCG | -4.0% |
| 07W | NHS Ealing CCG | -3.5% |
| 09C | NHS Ashford CCG | -2.9% |
| 10E | NHS Thanet CCG | -2.4% |
| 08C | NHS Hammersmith and Fulham CCG | -2.3% |
| 09W | NHS Medway CCG | -2.3% |
| 08D | NHS Haringey CCG | -2.2% |
| 08T | NHS Sutton CCG | -2.2% |
| 99C | NHS North Tyneside CCG | -2.2% |
| 09E | NHS Canterbury and Coastal CCG | -1.9% |
| 06Y | NHS South Norfolk CCG | -1.8% |
| 05X | NHS Telford & Wrekin CCG | -1.7% |
| 07Y | NHS Hounslow CCG | -1.6% |
| 11C | NHS Windsor, Ascot and Maidenhead CCG | -1.4% |
| 99G | NHS Southend CCG | -1.2% |
| 05N | NHS Shropshire CCG | -1.1% |
| 03L | NHS Rotherham CCG | -1.1% |
| 07G | NHS Thurrock CCG | -1.0% |

The variation can be due to a variety of causes which may include:

* Changing population – less or more people requiring referral due to national policy guidelines such as NICE
* Local referral policies
* The hospitals have not recorded all of their activity and thus HES shows lower numbers than actually have occurred. Under reporting by hospitals may happen as it was not mandatory to include the clinical diagnosis in outpatient data up until 2014.

### 3.2 Age Related Macular Degeneration (AMD)

Analysis of patients with AMD has shown an increase in patients and activity over the past 5 years. See Table 5 below (data for total patients and total spells is also presented in chart format, see Chart 3 below).

**Table 5: AMD activity total patients and total spells**

|  |  |
| --- | --- |
|   | **INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase in spells compared to the previous year** | **Percentage increase in spells compared to the previous year** |
| 2011 | 26,886 | 83,662 |   |   |
| 2012 | 29,946 | 97,237 | 13,575 | 16.2% |
| 2013 | 31,719 | 101,611 | 4,374 | 4.5% |
| 2014 | 33,768 | 111,292 | 9,681 | 9.5% |
| 2015 | 35,341 | 116,289 | 4,997 | 4.5% |
| 2016 | 37,604 | 123,612 | 7,323 | 6.3% |

**Chart 3: AMD national figures year on year inpatient and outpatient activity**

When split into inpatient and outpatient activity a shift can be seen from inpatient care setting to the outpatient care setting (see Table 6 below). So activity is increasing and also where it is taking place has changed. This is likely to be due to more innovative treatments for AMD which are simpler to do and therefore can be done in the outpatient clinic.

**Table 6: AMD activity - inpatient total patients and total spells, outpatient total patients and total spells**

|  |  |
| --- | --- |
| **INPATIENTS** | **OUTPATIENTS** |
| **Total Patients** | **Total Spells** | **Total Patients** | **Total Appts** |
| 22,335 | 69,700 | 4,835 | 13,962 |
| 24,662 | 77,410 | 5,730 | 19,827 |
| 24,994 | 75,517 | 7,148 | 26,094 |
| 26,037 | 81,689 | 8,906 | 29,603 |
| 26,218 | 80,186 | 10,193 | 36,103 |
| 24,263 | 64,792 | 14,391 | 58,820 |

Although the national picture shows year on year growth, analysis by individual CCGs shows variance on growth. Growth is measured as Cumulative Annual Growth Rate (CAGR) a positive figure shows growth a negative figure showed decline.

Of the CCGs analysed 69 showed a negative CAGR but the majority a positive growth. The top 20 CCGs in terms of growth over the past 5 years are listed below (see Table 7 below). Although the CAGR can be presented, conclusions should not be drawn on outliers as a variety of causes such as change in provider, care setting and coding could all be contributory factors.

**Table 7: AMD activity - the top 20 CCGs in terms of cumulative growth in activity from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 10Q | NHS Oxfordshire CCG | 94.8% |
| 01W | NHS Stockport CCG | 58.4% |
| 01Y | NHS Tameside and Glossop CCG | 50.6% |
| 04Y | NHS Cannock Chase CCG | 39.3% |
| 01M | NHS North Manchester CCG | 37.3% |
| 00Q | NHS Blackburn with Darwen CCG | 35.1% |
| 03J | NHS North Kirklees CCG | 33.9% |
| 00W | NHS Central Manchester CCG | 32.0% |
| 09G | NHS Coastal West Sussex CCG | 30.4% |
| 01N | NHS South Manchester CCG | 27.9% |
| 12F | NHS Wirral CCG | 27.5% |
| 04C | NHS Leicester City CCG | 27.2% |
| 99M | NHS North East Hampshire and Farnham CCG | 26.8% |
| 03W | NHS East Leicestershire and Rutland CCG | 26.5% |
| 06H | NHS Cambridgeshire and Peterborough CCG | 24.8% |
| 05F | NHS Herefordshire CCG | 24.6% |
| 08H | NHS Islington CCG | 24.6% |
| 10C | NHS Surrey Heath CCG | 24.4% |
| 07J | NHS West Norfolk CCG | 24.3% |
| 09N | NHS Guildford and Waverley CCG | 24.1% |

The top twenty biggest declines over 5 years are shown below (see Table 8 below). The reasons for this decline may be due to many factors e.g. the CCG may not be referring as many people, the hospital may not be doing as many procedures or the CCG may have an alternative treatment provider whose data is not submitted to HES.

**Table 8: AMD activity - the top 20 CCGs in terms of cumulative decline in activity from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 00R | NHS Blackpool CCG | -44.4% |
| 02M | NHS Fylde & Wyre CCG | -39.1% |
| 04D | NHS Lincolnshire West CCG | -36.0% |
| 01K | NHS Lancashire North CCG | -35.6% |
| 04Q | NHS South West Lincolnshire CCG | -35.5% |
| 00M | NHS South Tees CCG | -31.6% |
| 06W | NHS Norwich CCG | -31.4% |
| 02R | NHS Bradford Districts CCG | -29.1% |
| 02N | NHS Airedale, Wharfedale and Craven CCG | -28.2% |
| 06Y | NHS South Norfolk CCG | -26.2% |
| 06V | NHS North Norfolk CCG | -24.2% |
| 01E | NHS Greater Preston CCG | -23.9% |
| 03T | NHS Lincolnshire East CCG | -23.2% |
| 03E | NHS Harrogate and Rural District CCG | -22.6% |
| 06N | NHS Herts Valleys CCG | -22.3% |
| 02W | NHS Bradford City CCG | -22.2% |
| 10H | NHS Chiltern CCG | -22.0% |
| 08T | NHS Sutton CCG | -21.9% |
| 03F | NHS Hull CCG | -20.9% |
| 09A | NHS Central London (Westminster) CCG | -20.8% |

### 3.3 Retinal Vascular Occlusion (RVO)

The numbers of patients with RVO seen within Ophthalmology has nearly doubled in 2011/12 and the amount of activity has increased 3-fold. See Table 9 below (data for total patients and total spells is also presented in chart format, see Chart 4 below). This is most likely driven by the availability of new treatment options.

**Table 9: RVO activity total patients and total spells**

|  |  |
| --- | --- |
|  | **INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase in activity compared to the previous year** | **Percentage increase in activity compared to the previous year** |
| 2011 | 4,644 | 7,085 |  |   |
| 2012 | 6,870 | 9,932 | 2,847 | 40.2% |
| 2013 | 7,348 | 12,180 | 2,248 | 22.6% |
| 2014 | 7,946 | 16,939 | 4,759 | 39.1% |
| 2015 | 8,514 | 21,184 | 4,245 | 25.1% |
| 2016 | 8,861 | 23,052 | 1,868 | 8.8% |

**Chart 4: RVO activity national figures year on year inpatient and outpatient activity**

The overall number of patients with RVO is a small percentage of overall attendances compared to other diseases such as AMD and Cataracts. Due to the small numbers of patients it is not possible to accurately reflect variation across CCGs. Also there was very little activity for this disease prior to 2012 and thus the increase demonstrated is not a true reflection of normal practice.

### 3.4 Diabetic Retinopathy (DR)

The numbers of patients seen in the NHS with DR has risen over the past five years (see Table 10 below, data for total patients and total spells is also presented in chart format – see Chart 5 below), but accurate conclusions cannot be drawn as coding only really started in HES over the past couple of years. National policy and GP practices with respect to screening patients have increased the detection rates and thus the referral rates.

**Table 10 Diabetic Retinopathy activity total patients and total spells**

|  |  |
| --- | --- |
|  | **INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase in spells compared to the previous year** | **Percentage increase in spells compared to the previous year** |
| 2011 | 816 | 2,116 |   |   |
| 2012 | 7,965 | 13,595 | 11,479 | 542.5% |
| 2013 | 9,481 | 17,121 | 3,526 | 25.9% |
| 2014 | 10,962 | 22,935 | 5,814 | 34.0% |
| 2015 | 11,076 | 25,557 | 2,622 | 11.4% |
| 2016 | 12,618 | 29,572 | 4,015 | 15.7% |

**Chart 5: DR national figures year on year inpatient and outpatient activity**

Due to the coding anomalies it is not possible to accurately reflect variation across CCGs.

**3.5 Cataracts**

Cataract surgery is the largest surgical intervention undertaken in ophthalmology services in England. Growth in patients and activity has increased year on year but the growth rates are not consistent having dropped in 2015 and rising again in 2016/17. The largest growth was in 2013/14. See Table 11 below (data for total patients and total spells is also presented in chart format – see Chart 6 below).

**Table 11: Cataract activity total patients and total spells**

|  |  |
| --- | --- |
|  |  **CATARACTS INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase in spells compared to the previous year** | **Percentage increase in spells compared to the previous year** |
| 2011 | 258,880 | 326,856 |  |   |
| 2012 | 260,347 | 328,625 | 1,769 | 0.5% |
| 2013 | 287,284 | 362,762 | 34,137 | 10.4% |
| 2014 | 310,241 | 395,008 | 32,246 | 8.9% |
| 2015 | 313,188 | 398,582 | 3,574 | 0.9% |
| 2016 | 321,980 | 410,026 | 11,444 | 2.9% |

**Chart 6: Cataract national figures year on year inpatient and outpatient activity**

The vast majority of activity relating to Cataracts is in the inpatient setting as a day case; this reflects the complexity of the procedure. A small amount of activity is seen in the outpatient setting but this is not the norm. See Table 12 below.

**Table 12: Cataract activity - inpatient total patients and total spells, outpatient total patients and total spells**

|  |  |
| --- | --- |
| **INPATIENTS** | **OUTPATIENTS** |
| **Total Patients** | **Total Spells** | **Total Patients** | **Total Spells** |
| 258,853 | 326,615 | 177 | 241 |
| 260,281 | 328,288 | 220 | 337 |
| 287,213 | 362,652 | 99 | 110 |
| 309,513 | 394,216 | 789 | 792 |
| 311,017 | 396,309 | 2,266 | 2,273 |
| 319,699 | 407,484 | 2,397 | 2,542 |

Variation in terms of activity can be seen across English CCGs but the majority of CCGs do demonstrate growth over the past 5 years (see Table 13 below). Only 22 CCGs have a decline in growth.

Although the CAGR can be presented, conclusions should not be drawn on outliers as a variety of causes such as change in provider, care setting and coding could all be contributory factors.

**Table 13: Cataract activity - the top 20 CCGs in terms of cumulative growth in activity from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 99H | NHS Surrey Downs CCG | 16.8% |
| 06L | NHS Ipswich and East Suffolk CCG | 16.1% |
| 99F | NHS Castle Point and Rochford CCG | 14.7% |
| 07G | NHS Thurrock CCG | 14.2% |
| 09G | NHS Coastal West Sussex CCG | 13.5% |
| 02D | NHS Vale Royal CCG | 12.9% |
| 01C | NHS Eastern Cheshire CCG | 12.7% |
| 99E | NHS Basildon and Brentwood CCG | 11.8% |
| 10V | NHS South Eastern Hampshire CCG | 10.9% |
| 11A | NHS West Hampshire CCG | 10.9% |
| 01R | NHS South Cheshire CCG | 10.8% |
| 06D | NHS Wyre Forest CCG | 10.8% |
| 05P | NHS Solihull CCG | 10.5% |
| 10D | NHS Swale CCG | 10.4% |
| 99D | NHS South Lincolnshire CCG | 10.4% |
| 10H | NHS Chiltern CCG | 10.2% |
| 04M | NHS Nottingham West CCG | 10.1% |
| 10X | NHS Southampton CCG | 9.9% |
| 03V | NHS Corby CCG | 9.8% |
| 06H | NHS Cambridgeshire and Peterborough CCG | 9.7% |

Top twenty CCGs with a decline in Cataract activity over the past five years are presented in Table 14 below. This decline can be for a variety of reasons including using alternative providers to treat the cataract, fast access clinics or a changing population.

**Table 14: Cataract activity - the top 20 CCGs in terms of cumulative decline in activity from 2011-2016.**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 02X | NHS Doncaster CCG | -6.6% |
| 08A | NHS Greenwich CCG | -2.3% |
| 13P | NHS Birmingham CrossCity CCG | -1.9% |
| 07L | NHS Barking & Dagenham CCG | -1.6% |
| 03L | NHS Rotherham CCG | -1.6% |
| 03C | NHS Leeds West CCG | -1.6% |
| 05Y | NHS Walsall CCG | -1.3% |
| 06Y | NHS South Norfolk CCG | -1.2% |
| 06V | NHS North Norfolk CCG | -1.2% |
| 06A | NHS Wolverhampton CCG | -1.2% |
| 11E | NHS Bath and North East Somerset CCG | -1.1% |
| 02P | NHS Barnsley CCG | -0.7% |
| 08D | NHS Haringey CCG | -0.6% |
| 01T | NHS South Sefton CCG | -0.6% |
| 08R | NHS Merton CCG | -0.6% |
| 06W | NHS Norwich CCG | -0.5% |
| 07J | NHS West Norfolk CCG | -0.5% |
| 07X | NHS Enfield CCG | -0.5% |
| 07V | NHS Croydon CCG | -0.4% |
| 02W | NHS Bradford City CCG | -0.4% |

Waiting times were analysed to determine whether there was variation across the country in terms of time between first attendances at Ophthalmology outpatients to surgical treatment for Cataracts. See Table 15 below.

This analysis appeared to show high levels of variation with some substantial outliers, however, further investigation with this areas highlighted that external factors were affecting recorded figures. These factors included, one stop treatment, fast access and alternative providers.

**Table 15: Average time first ophthalmology** **attendance to first surgical treatment for cataracts**

|  |  |  |
| --- | --- | --- |
| **CCG Co****de** | **CCG Name** | **Average Time First OP Att to surgical treatment for cataracts** |
| 07X | NHS Enfield CCG | 502 |
| 12D | NHS Swindon CCG | 187 |
| 10X | NHS Southampton CCG | 181 |
| 99N | NHS Wiltshire CCG | 109 |
| 10Y | NHS Aylesbury Vale CCG | 104 |
| 01E | NHS Greater Preston CCG | 103 |
| 06D | NHS Wyre Forest CCG | 100 |
| 00X | NHS Chorley and South Ribble CCG | 99 |
| 10L | NHS Isle of Wight CCG | 97 |
| 01W | NHS Stockport CCG | 93 |
| 10H | NHS Chiltern CCG | 93 |
| 02A | NHS Trafford CCG | 92 |
| 05T | NHS South Worcestershire CCG | 81 |
| 05F | NHS Herefordshire CCG | 79 |
| 11M | NHS Gloucestershire CCG | 79 |
| 01H | NHS Cumbria CCG | 78 |
| 08J | NHS Kingston CCG | 76 |
| 03T | NHS Lincolnshire East CCG | 73 |
| 04D | NHS Lincolnshire West CCG | 73 |
| 00C | NHS Darlington CCG | 68 |

The data were also interrogated to identify whether the rates of falls experienced by patients waiting for cataract surgery where higher than expected for that given population. The results showed that there are no correlations between waiting times and fall rates. Data is also presented in chart format below – see Chart 7.

**Chart 7: All CCGs – percentage of falls vs. waiting time (cataract)**

Although there are four outliers they show completely opposite outcomes in that two had low waiting times but higher falls and two had lower falls but more waiting time.

The reason for this lack of correlation may be that some patients do have falls and don’t attend hospital, HES data is specifically looking at hospital admissions and thus activity outside of this is not included.

RNIB has conducted research on falls and this can be accessed via this link: <http://www.rnib.org.uk/professionals/knowledge-and-research-hub/research-reports/travel-mobility-and-living-skills-research>.

**3.6 Glaucoma**

The number of patients with Glaucoma is increasing year on year apart from a small decline in 2013. Activity for Glaucoma is also increasing apart from 2012 where there was a small decline. In the most recent years there has been double digit growth up 17.4 per cent in 2016/17. See Table 16 below (data for total patients and total spells is also presented in chart format – see Chart 8 below).

**Table 16: Glaucoma activity total patients and total spells**

|  |  |
| --- | --- |
|  | **INPATIENTS & OUTPATIENTS COMBINED** |
| **HES Year** | **Total Patients** | **Total Spells** | **Increase / decrease in spells compared to the previous year** | **Percentage increase/decrease in spells compared to the previous year** |
| 2011 | 47,808 | 70,571 |  |   |
| 2012 | 53,133 | 81,685 | 11,114 | 15.7% |
| 2013 | 52,081 | 76,289 | -5,396 | -6.6% |
| 2014 | 55,205 | 79,140 | 2,851 | 3.7% |
| 2015 | 59,703 | 88,643 | 9,503 | 12.0% |
| 2016 | 68,313 | 104,105 | 15,462 | 17.4% |

**Chart 8: Glaucoma national figures year on year inpatient and outpatient activity**

The main care setting for Glaucoma is outpatients rather than day case. There is less variation in Glaucoma activity across CCGs than other eye diseases, reflecting more parity in referral and treatment.

The top twenty in terms of growth shows a large outlier, this large growth may be due to a number of reasons which cannot be concluded from the analysis. See Table 17 below.

**Table 17: Glaucoma activity - the top 20 CCGs in terms of cumulative growth in activity from 2011-2016**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 10Q | NHS Oxfordshire CCG | 108.9% |
| 02A | NHS Trafford CCG | 48.3% |
| 06H | NHS Cambridgeshire and Peterborough CCG | 43.2% |
| 01C | NHS Eastern Cheshire CCG | 38.6% |
| 07H | NHS West Essex CCG | 36.9% |
| 11J | NHS Dorset CCG | 31.0% |
| 99A | NHS Liverpool CCG | 28.1% |
| 01J | NHS Knowsley CCG | 27.3% |
| 07K | NHS West Suffolk CCG | 27.0% |
| 05C | NHS Dudley CCG | 26.4% |
| 10C | NHS Surrey Heath CCG | 25.9% |
| 09P | NHS Hastings & Rother CCG | 24.8% |
| 03E | NHS Harrogate and Rural District CCG | 24.3% |
| 10Y | NHS Aylesbury Vale CCG | 23.5% |
| 12D | NHS Swindon CCG | 22.6% |
| 01F | NHS Halton CCG | 22.5% |
| 99M | NHS North East Hampshire and Farnham CCG | 22.0% |
| 04X | NHS Birmingham South and Central CCG | 21.8% |
| 10X | NHS Southampton CCG | 21.7% |
| 12F | NHS Wirral CCG | 21.1% |

The declines could be attributed to a change in care setting and it is possible that a new service or alternative provider has been introduced which is not captured in HES, thus skewing the figures on decline. See Table 18 below.

**Table 18: Glaucoma activity - the top 20 CCGs in terms of cumulative decline in activity from 2011-2016**

|  |  |  |
| --- | --- | --- |
| **CCG Code** | **CCG Name** | **Cumulative Annual Growth rate CAGR(2011 to 2016)** |
| 02X | NHS Doncaster CCG | -35.6% |
| 02Q | NHS Bassetlaw CCG | -35.4% |
| 10J | NHS North Hampshire CCG | -30.3% |
| 06Q | NHS Mid Essex CCG | -25.9% |
| 00M | NHS South Tees CCG | -25.7% |
| 02G | NHS West Lancashire CCG | -24.9% |
| 03J | NHS North Kirklees CCG | -22.9% |
| 12A | NHS South Gloucestershire CCG | -19.3% |
| 09D | NHS Brighton & Hove CCG | -18.2% |
| 11H | NHS Bristol CCG | -18.0% |
| 11T | NHS North Somerset CCG | -16.2% |
| 04Q | NHS South West Lincolnshire CCG | -16.1% |
| 02P | NHS Barnsley CCG | -14.7% |
| 03R | NHS Wakefield CCG | -13.4% |
| 08F | NHS Havering CCG | -13.3% |
| 02T | NHS Calderdale CCG | -11.6% |
| 03W | NHS East Leicestershire and Rutland CCG | -11.6% |
| 03X | NHS Erewash CCG | -10.3% |
| 07X | NHS Enfield CCG | -8.9% |
| 06T | NHS North East Essex CCG | -8.5% |

### 3.7 Ophthalmology outpatient cancelled appointments

HES holds details of outpatient appointments that have been:

* Cancelled by the patient before attendance
* Cancelled by the hospital prior to the patient attending
* Did not attend the patient failed to turn up

Analysis has been done on patients with AMD, Glaucoma, RVO and DR and their outpatients’ appointments and cancellations split by disease type. See Table 19 below (data is also presented in chart format – see Charts 9 and 10 below).

The analysis shows a large variation in hospital cancelled appointments when split by disease type, with over 7 per cent of Glaucoma outpatient appointments being cancelled. The reasons for this cannot be explained from analysing the HES data but possibly warrant further investigation.

It should be noted that it is not possible to compare between CCGs in terms of cancelled appointments as some CCGs activity is predominantly held in the inpatient care setting thus reducing their outpatient activity to very low numbers which skews variation analysis.

Analysis of Did Not Attend outpatient appointments shows that Diabetic Retinopathy outpatients are less likely to attend than the other groups.

**Table 19: Ophthalmology outpatient hospital cancelled appointments and Did Not Attend rates from 2011-2016 by disease type**

|  |  |
| --- | --- |
|  | **HES Year** |
| **2012** | **2013** | **2014** | **2015** | **2016** |
| AMD DNA Rate | 2.34% | 2.23% | 2.20% | 2.16% | 2.16% |
| AMD Hospital Cancelled Rate | 4.16% | 3.49% | 4.04% | 5.15% | 5.19% |
| DR DNA Rate | 7.10% | 6.69% | 6.39% | 6.42% | 6.16% |
| DR Hospital Cancelled Rate | 7.22% | 6.47% | 6.32% | 6.55% | 5.94% |
| Glaucoma DNA Rate | 3.69% | 3.47% | 3.27% | 2.99% | 2.87% |
| Glaucoma Hospital Cancelled Rate | 8.21% | 7.71% | 7.26% | 8.28% | 8.18% |
| RVO DNA Rate | 3.59% | 2.97% | 3.00% | 2.51% | 2.66% |
| RVO Hospital Cancelled Rate | 5.54% | 4.87% | 4.82% | 5.94% | 5.47% |

**Chart 9: Ophthalmology outpatient hospital cancelled appointments from 2011-2016 by disease type**

**Chart 10: Ophthalmology outpatient Did Not Attend rates from 2011-2016 by disease type**