

Eye health data summary



A review of published data in England

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Foreword

Healthcare data is often criticised, and even dismissed, by those who cite concerns regarding its quality and accuracy. However data analysis is an indispensable resource in the NHS's drive for improving quality, value and outcomes for patients. This excellent summary of eye health data provides a snapshot of what is being measured, counted and published about national eye care services. It is essential reading for both health policy makers, providers and professionals in understanding what is occurring in our health service right now, where the gaps are in our knowledge and, importantly, to reflect on what more is needed to improve our healthcare planning and decision making.

The need for robust health service data underpins many of the health service reforms currently under way. The NHS Atlas of Variation has aimed to highlight variation in quality, outcome, expenditure and activity in the health service. An outcome-based health and public health service, and an 'information revolution' which promises to put clinical data into the public domain, will all require robust local and national mechanisms for collecting clinical data. Overall, there is a real move for the health service to be driven by the knowledge gathered from research, clinical and service data analysis and patient experience.

Therefore, this is an extremely timely and important data summary. Undoubtedly, the data sets used and their quality could be improved. The implications and judgements made from the data need to be made with caution and an understanding of its limitations. This may lead to a need to improve the data or find ways to fill in the gaps. Any data is only useful if we use it to make a difference, and the value of this information will lie in how it is used by health policy makers and eyecare professionals alike to drive improvements in care for patients.

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Introduction

This report aims to provide a summary of published eye health data available in England. The report was commissioned by RNIB's Prevention of Avoidable Sight Loss programme in order to provide an update on the current picture in eye health data and to give indication of national level trends.

All the information contained in this report is already in the public domain. However, this is the first time that these data have been summarised in a single report.

We hope that the presentation of this information will highlight what data we already have and encourage debate about how we can improve the range and quality of eye health data that is routinely collected in England in the future.

Limitations

Most of the data in this report relates to the period 2011/12. Wherever possible national data was used but where there were gaps relevant published research literature is used. However this is not a detailed review of research evidence.

There are some specific limitations to each of the datasets quoted in this report. In most cases, the original source material contains notes about the quality of the data and outlines the methodology used. Some limitations are given in the relevant sections, but readers should utilise the references section and the direct links to the original sources to obtain further details for specific datasets.

This paper is a snapshot of official data on eye health. It does not offer any hypotheses to explain the data or set out any specific calls to action.

1. Headline summary

Sight loss in the UK

- Almost 2 million people in the UK are living with sight loss (Access Economics, 2009).
- In 2008, 218,000 people in the UK were living with severe sight loss or blindness (Access Economics, 2009).
- The number of people living with sight loss is increasing (Access Economics, 2009).
- The number of people living with a sight threatening eye condition is predicted to increase over the next decade (Minassian and Reidy, 2009).
- Blindness is defined as best-corrected visual acuity of <math><6/60</math> in the better seeing eye; partial sight is defined as best corrected visual acuity of <math><6/12</math> to $6/60$ in the better seeing eye (Access Economics, 2009).

Certification of Vision Impairment

- The certification of sight loss records the number of new people being verified by a consultant ophthalmologist as reaching a specific sight loss criteria.
- 23,616 CVIs were issued in England in 2011/12 (RNIB, 2013b).
- This represents an increase of 5 per cent (1,115 more CVIs) compared to 2010/11.
- The leading cause of certifications is age-related macular degeneration (RNIB, 2013b).

Registration of sight loss and severe sight loss

- Sight loss registers are held by local authorities and record the number of people currently registered as blind or partially sighted. New registrations are initiated on the receipt of a Certification of Vision Impairment.
- There were an estimated 298,800 registered blind or partially sighted people in England in 2011 (HSCIC, 2011a).
- Total number of people on the register has decreased by over 10,000 since 2008; a 3 per cent drop (HSCIC, 2011a).
- The number of new registrations has dropped significantly in recent years, from 31,550 in 1996/97 to 20,960 in 2010/11; a decrease of 34 per cent (HSCIC, 2011a).

Sight tests

- There were 12.3 million NHS funded sight tests in England in 2012/13 (HSCIC, 2013a).
- More people are having NHS sight tests – both in terms of total number and the rate per 100,000 people (HSCIC, 2013a).
- Older people aged over 60 and children aged under 16 make up the majority of those receiving an NHS sight test.

Outpatients

- In 2011/12, there were a total of 6.8 million outpatient attendances at hospitals under the specialities Ophthalmology, Paediatric Ophthalmology and Medical Ophthalmology (HSCIC, 2012a).
- 1.8 million of these were for patients attending their first appointment (HSCIC, 2012a).
- The number of ophthalmology outpatient attendances is increasing (HSCIC, 2012a, 2011b, 2010a, 2009a, 2008b, 2007a and 2006b).
- Ophthalmology has the second highest number of outpatients amongst any speciality (HSCIC, 2012a).
- There is limited information on why people attend an ophthalmology outpatient appointment (HSCIC, 2012d).

Inpatients

- In 2011/12, there were 620,000 finished consultant episodes related to ophthalmology inpatients in England (HSCIC, 2012e).
- The number of patients admitted to hospital for ophthalmic treatment has been increasing, although there was a 1.5 per cent decrease from 2010/11 (HSCIC, 2012e, 2011c, 2010b, 2009b, 2008c, 2007b and 2006c).
- The vast majority of ophthalmic treatments are carried out as day cases, without the need for an overnight stay in hospital (HSCIC, 2012e).
- 59 per cent of ophthalmology inpatients had the primary diagnosis of “Disorders of lens (including cataracts)” (HSCIC, 2012f).

Waiting times

- In 2012, 479,000 patients started admitted treatment under the ophthalmology speciality. Of these patients, 93.7 per cent started their admitted treatment within 18 weeks of their referral (DH, 2013a).
- In 2012, 998,000 patients started non-admitted treatment under the ophthalmology speciality. Of these patients, 97.5 per cent started their non-admitted treatment within 18 weeks of their referral (DH, 2013a).

Expenditure

- In 2011/12, the Programme Budget for “Problems of vision” was £2.26 billion (DH, 2013b).
- That is equivalent to £42.84 being spent on “Problems of vision” per person in England (DH, 2013b).
- Programme Budget expenditure on eye health is increasing. The total cost is now 87 per cent higher than it was in 2003/04 (DH, 2013b).
- In 2011/12, “Problems of vision” represented 2.4 per cent of the overall Programme Budget expenditure; this compared to 2.3 per cent in 2003/04 (DH, 2013b).

Treatments

- In 2011, total expenditure on Lucentis, a treatment for wet Age Macular Degeneration (AMD), was £155million (HSCIC, 2012h).
- In 2011/12, there were 2.59 million people identified as having diabetes in England. Of these people, 2.36 million patients were offered screening, and 248,000 were excluded from the screening programme. Of those who were offered screening, the uptake was 80.9 per cent (NSC, 2012).
- In 2012, a total of 8.3 million items were dispensed in the community for the treatment of glaucoma (that is, not dispensed in hospital). The net cost of these community-based glaucoma prescriptions was £105million (HSCIC, 2013b).
- In 2011/12, there were a total of 337,000 cataract operations in England, a decrease of over 3 per cent over the past two years (HSCIC, 2012i).

2. Sight loss

2.1 Sight loss in the UK

There are almost 2 million people in the UK living with sight loss. The leading causes of sight loss are uncorrected refractive error, age-related macular degeneration, cataract, glaucoma and diabetic retinopathy (Access Economics, 2009).

Within this group, there are an estimated 218,000 people in the UK living with severe sight loss or blindness. The leading causes of blindness are age-related macular degeneration, glaucoma, cataract, diabetic retinopathy and uncorrected refractive error (Access Economics, 2009).

These estimates are based on the prevalence of sight loss, taking into account factors such as age, gender and ethnicity. This not only includes people who are registered blind or partially sighted, but also those who are waiting for treatment, those whose sight could be improved, those who have not registered for whatever reason and people whose sight loss is not at a level that allows them to register.

In the “Future Sight Loss UK 1” report, sight loss is defined as follows:

- Blindness (severe sight loss) is defined as best-corrected visual acuity of <math><6/60</math> in the better-seeing eye.
- Partial sight is defined as best-corrected visual acuity of <math><6/12</math> to $6/60$ in the better-seeing eye, and is categorised as:
 - mild sight loss – best-corrected visual acuity of <math><6/12</math> but better than or equal to $6/18$; and
 - moderate sight loss – best-corrected visual acuity of <math><6/18</math> but better than or equal to $6/60$.
- Sight loss is defined as partial sight or blindness in the better-seeing eye (Access Economics, 2009).

This definition differs from that used in the Certification of Vision Impairment process. It is a broader definition, and includes people who would not be eligible for certification. For further details on the definitions used in certification, please see the “Certification and Registration Processes” report (Boyce, 2012).

Sight loss and children

There are an estimated 25,000 blind and partially sighted children aged 0–16 in Britain (Morris and Smith, 2008). As many as half of these children may have other disabilities.

2. Sight loss

The causes of visual impairment in children in the UK are numerous, complex and often part of a wider picture of childhood disability (Bodeau-Livinec et al, 2007). The three most common causes of severe visual impairment and blindness in children are cerebral visual impairment, disorders of the optic nerve, and disorders of the retina (Rahi and Cable, 2003).

Sight loss and people with learning disabilities

There are around 100,000 blind and partially sighted people with learning disabilities in the UK. Adults with learning disabilities are 10 times more likely to be blind or partially sighted than the general population (Emerson and Robertson, 2011).

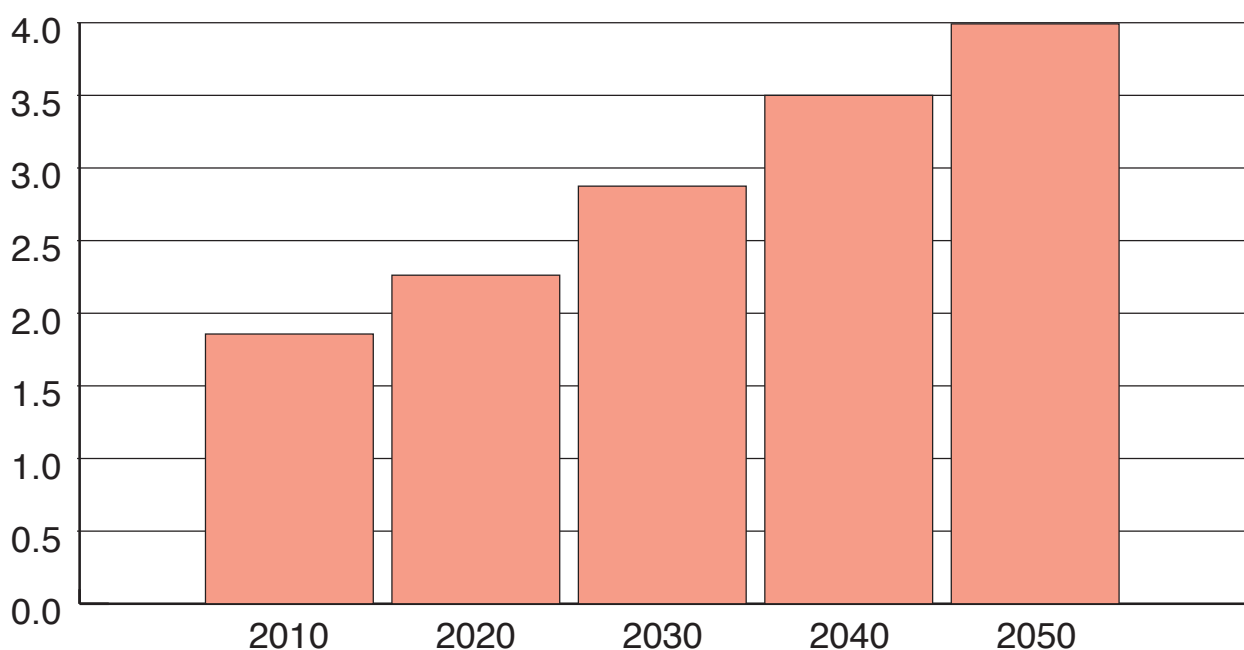
Sight loss and ethnicity

People from black and minority ethnic communities may be at greater risk of developing some of the leading causes of sight loss, including glaucoma, cataract and diabetic eye disease (Access Economics, 2009).

Future sight loss

The number of people in the UK with sight loss is set to increase in the future. The prevalence of sight loss increases with age, and the UK population is ageing. It is predicted that by 2020 the number of people with sight loss will increase to over 2,250,000. By 2050, the number of people with sight loss in the UK will double to nearly 4 million (Access Economics, 2009).

Chart 2.1: Projected number of people (in millions) living with sight loss in the UK



Source: Access Economics, 2009

2. Sight loss

Table 2.1: Projected number of people living with sight loss in the UK

Years	Estimated projection of people living with sight loss in the UK
2010	1,857,062
2020	2,262,124
2030	2,875,392
2040	3,500,485
2050	3,992,517

Source: Access Economics, 2009

2.2 Sight threatening eye conditions

In addition to people living with sight loss, there are a large number of people who are living with a sight threatening eye condition. The “Future Sight Loss UK 2” report (Minassian and Reidy, 2009) developed a model for estimating the prevalence of sight threatening eye conditions from 2010 to 2020.

AMD

An estimated 415,000 people are living with wet AMD and 194,000 people are living with dry AMD in one or both eyes in the UK in 2010. In addition, a further 1,494,000 people are living with the early stage of the disease

By 2020 the number of people living with wet AMD is estimated to increase to 516,000, and the number of people living with dry AMD estimated to increase to 240,000. The number of people living with early AMD is expected to increase to 1,821,000.

Cataract

The model estimated the number of cataract operations in 2010. However, we now have actual figures – see section 10.4 for actual numbers of cataract surgery performed in 2009/10.

Diabetic retinopathy (DR)

In 2010 there are an estimated 748,000 people living with background diabetic retinopathy (early signs of DR) and 85,000 will be classified as falling into non-proliferative and proliferative retinopathy combined, which are more advanced stages than background DR. Diabetic maculopathy, which can occur from the non-proliferative stage onwards and can lead to sight loss, is expected to be present in 188,000 people in 2010.

2. Sight loss

By 2020 the number of people with background diabetic retinopathy is estimated to increase to 938,000. The number of people living with diabetic maculopathy is estimated to increase to 236,000.

Glaucoma

In 2010 there are estimated to be 513,000 people living with ocular hypertension, which increases the risk of developing glaucoma.

There are estimated to be 266,000 people living with detected glaucoma in the UK. An estimated additional 191,000 people are living with undetected glaucoma.

By 2020 the number of people living with ocular hypertension is estimated to increase to 602,000. The number of people living with glaucoma (both detected and undetected) will also increase to around 561,000.

2.3 Further information

For further information on sight loss in the UK please see:

- [Future Sight Loss UK 1: Economic Impact of Partial Sight and Blindness in the UK adult population](#)
- [Future Sight Loss UK 2: An epidemiological and economic model for sight loss in the decade 2010–2020](#)

3. Certification

Since 2005, the Certificate of Vision Impairment (CVI) has been used to record patients as severe sight impaired or sight impaired. Prior to this the BD8 was used to collect a similar dataset of information. With patient consent and when signed by a consultant ophthalmologist, the CVI is the formal notification to Local Authorities to assess the needs of the individual for services and register them as blind or partially sighted.

The Public Health Outcomes Framework – which sets out the desired outcomes for public health and how these will be measured – using certification to measure avoidable sight loss in England (Public Health England, 2013).

3.1 Number and rate of new certifications

In 2011/12, the total number of CVIs in England was 23,616 (RNIB, 2013b). The CVIs comprised:

- 22,239 adult (18 years and above) certifications, of which 9,840 (44 per cent) were certified SSI and 11,982 (54 per cent) were certified SI (417 did not specify visual status).
- 1,281 child (0 to 17 years old) certifications of which 603 (47 per cent) were certified SSI and 656 (51 per cent) were certified SI (22 did not specify visual status).

The rates of certification for specific eye diseases were:

- 110.5 out of every 100,000 people aged 65 and over were certified as a result of AMD.
- 12.8 out of every 100,000 people aged 40 and over were certified as a result of glaucoma.
- 3.8 out of every 100,000 people aged 12 and over were certified as a result of diabetic eye disease.
- 44.5 out of every 100,000 people of all ages were newly certified (Public Health England, 2013).

3.2 Certification by age

People aged 75 and over represented the majority of those certified, accounting for around two-thirds of all CVIs (RNIB, 2013b). The full age breakdown of CVIs in 2011/12 was as follows:

- 0–17 years, 5 per cent.
- 18–64 years, 22 per cent.
- 65–74 years, 10 per cent.
- 75 years and over, 62 per cent.

3. Certification

3.3 Certification by cause

Certifications in England indicated the following diagnoses, either as the main cause or a contributory cause where multiple causes were listed:

- AMD was the cause of sight loss in 42 per cent of all certifications.
- Glaucoma was the cause of sight loss in approximately 15 per cent of certifications.
- Diabetic eye disease was the cause in approximately 7 per cent of certifications.

3.4 Trends in certification

There were 1,115 more CVIs issued in 2011/12 compared to the previous year; an increase of 5 per cent.

Table 3.4: Total number of Certifications of Vision Impairment in England, 2008/09 to 2011/12

Years	Total number of certifications
2008/09	23,773
2009/10	22,694
2010/11	22,501
2011/12	23,616

Source: RNIB, 2013b, 2013a and 2012

4. Registration

Each Local Authority in England holds a register of blind and partially sighted people. Registration is voluntary, however it can lead to some benefits and concessions such as blind person's tax allowance, access to loan equipment and help with the cost of travel (Boyce, 2012). The individual should be contacted by the local authority once a certification form is received to invite them to receive an assessment of need. If the person consents, and even if the assessment does not lead to provision of service, the registration should be affected.

However, there are some concerns about the quality of registration data due to uncertainties about the regularity with which records are reviewed and updated. Therefore the reliability and accuracy of current registration data is difficult to determine. It is not a definitive measure of the number of blind and partially sighted people (HSCIC, 2011a).

For further information on registration, please refer to the [Health and Social Care Information Centre](#) website.

4.1 Number of people registered

At the end of March 2011, there were 298,800 people registered as blind or partially sighted in England (HSCIC, 2011a). 147,800 were on the register of blind people and 151,000 were on the register of partially sighted people.

4.2 Registration by age

Around two-thirds of people registered as blind or partially sighted in England are aged 75 years and over; 10 per cent were between 65 and 74 years; 22 per cent are of working age (18–64 years); and 3 per cent are aged 17 years or under.

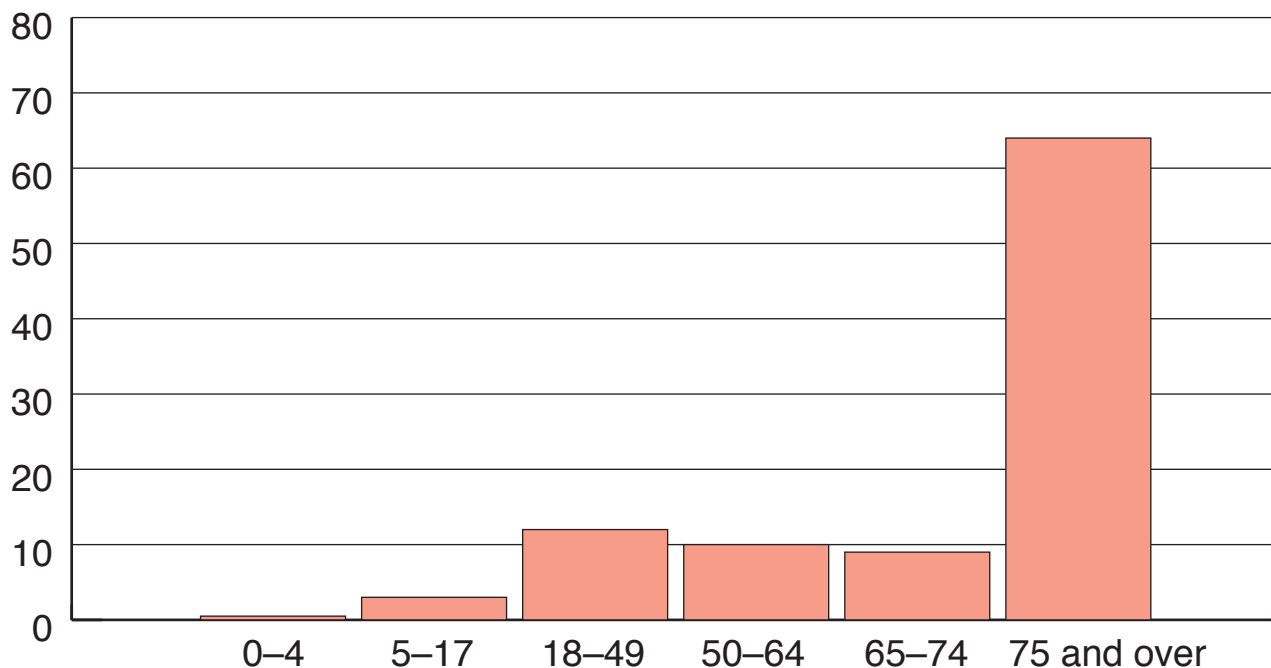
4. Registration

Table 4.2: Age distribution of registered blind and partially sighted people in England, 2011

Age band	Total number of registered blind or partially sighted people	Percentage of total registrations
0–4 years	1,245	0.4
5–17 years	8,390	2.8
18–49 years	36,295	12.1
50–64 years	30,650	10.3
65–74 years	28,625	9.6
75 years and over	193,560	64.8
Total	298,820	100

Source: HSCIC, 2011a

Chart 4.2: Age distribution of registered blind and partially sighted people in England, 2011



Source: HSCIC, 2011a

4. Registration

4.3 Registration by additional disabilities

49,300 people registered as blind (33 per cent) and 50,400 people registered as partially sighted (33 per cent) were reported as having an additional disability.

Of those people registered as blind with an additional disability, 5 per cent have a mental health problem, 8 per cent have a learning disability, 66 per cent have a physical disability and 22 per cent have a hearing impairment.

Of those people registered as partially sighted with an additional disability, 5 per cent have a mental health problem, 5 per cent have a learning disability, 68 per cent have a physical disability and 22 per cent have a hearing impairment.

Table 4.3: Percentage of people on the register of blind and partially sighted people by additional disability in England, 2011

	Registered blind with an additional disability	Registered partially sighted with an additional disability
Hearing impairment	22	22
Physical disability	66	68
Learning disability	8	5
Mental health problems	5	5
Total number	49,300	50,400

Source: HSCIC, 2011a

4.4 Trends in registration

Between 2008 and 2011, the number of people registered decreased by over 10,000. Previously, the total number of registered blind and partially sighted persons has remained stable for the past decade. In 2000 there were 307,000 people on the register, and in 2008 this had increased slightly to 309,000.

However, over the same period there has been a significant reduction in the number of new registrations. The number of people newly registered in 2010/11 had reduced by over a one-third from new registrations in 1996/97.

There has been an increase in the number of registered people recorded as having an additional disability. In 2006, there were 80,000 people recorded as having an additional disability, which represented 26 per cent of the overall

4. Registration

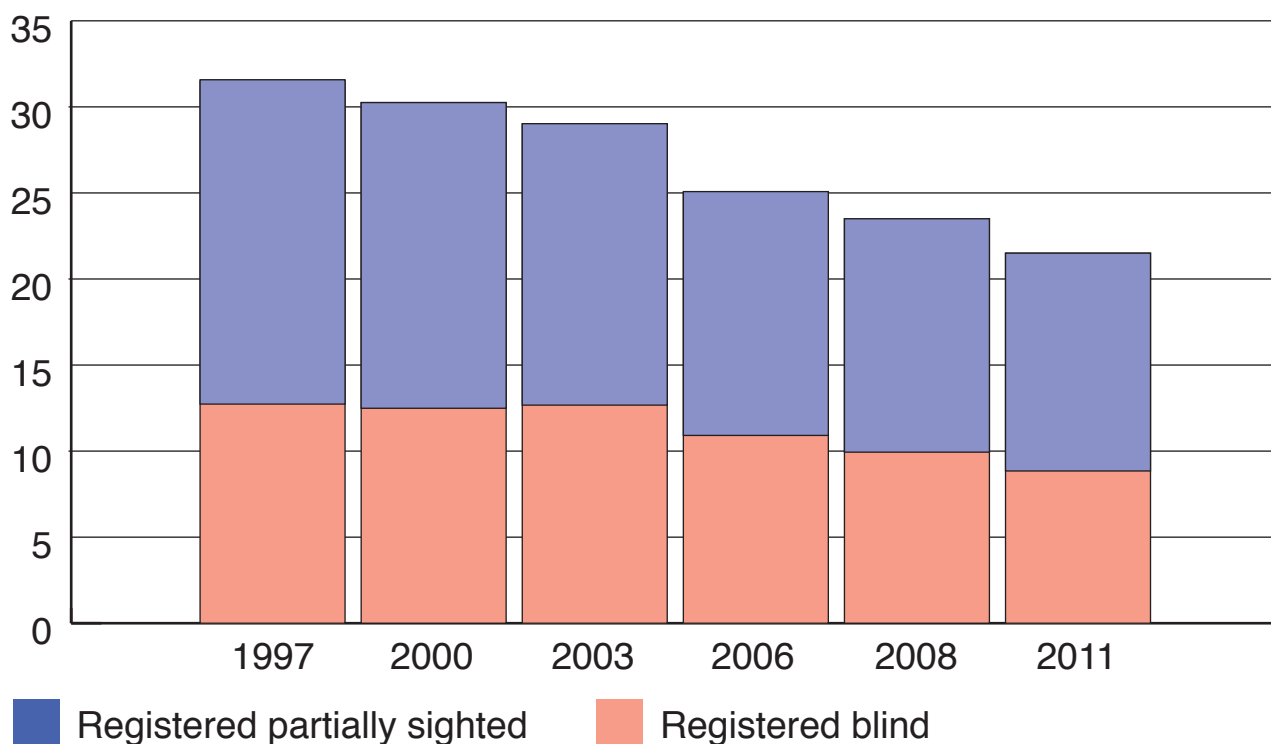
registered population. In 2011, this had increased to 99,700 people, or 33 per cent of registered blind and partially sighted people.

Table 4.4a: Total registrations and new registrations in England, 1997 to 2011

Years	Total registrations	New registrations
1997	296,770	31,550
2000	306,500	30,440
2003	311,905	29,610
2006	307,655	25,195
2008	309,265	23,470
2011	298,820	20,960

Source: HSCIC, 2011a

Chart 4.4a: New registrations (in thousands) in England, 1997 to 2011



Source: HSCIC, 2011a

4. Registration

Table 4.4b: Number and percentage of people registered blind or partially sighted and as having an additional disability in England, 2006 to 2011

Years	Number of people registered as having an additional disability	Percentage of total number of people registered
2006	80,000	26
2008	88,400	29
2011	99,700	33

Source: HSCIC, 2011a, 2008a and 2006a

5. NHS sight tests

General Ophthalmic Services are primarily provided by optometrists, and consist of NHS funded eye examinations, lenses, repairs or replacements. In England, NHS sight tests are available for eligible groups, including children, people aged over 60, people in receipt of certain benefits related to low income, and those suffering from or pre-disposed to eye disease. Data on sight tests comes from forms completed by providers, which are primarily a payment mechanism. This may affect the accuracy of the data collected, for example patients may be eligible under a number of different criteria, but only one may be recorded.

For more information on NHS sight tests, please refer to the General Ophthalmic Services publications on the [Health and Social Care Information Centre](#) website.

5.1 Number and rate of sight tests

There were 12.3 million NHS sight tests in 2012/13. This represents a slight increase of 0.3 per cent on the previous year, and an increase of over 27 per cent since 2002/03. In addition, there has also been an increase in the rate of NHS sight tests per 100,000 people. In 2002/03, 19,461 out of every 100,000 people in England had an NHS eye test. By 2012/13 the rate had increased to 23,235 NHS sight tests per 100,000 people; an increase of 19 per cent.

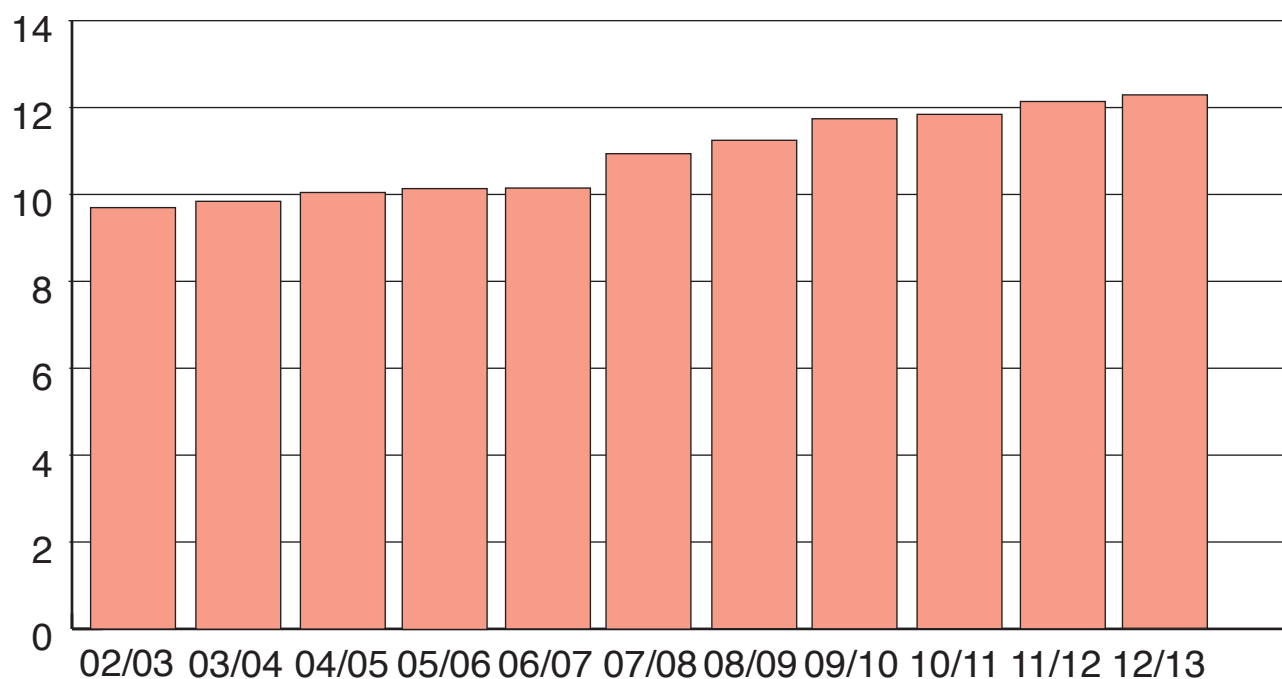
Table 5.1a: Number and rate of NHS sight tests in England, 2002/03 to 2012/13

Years	Total number of NHS sight tests	Percentage change from previous year
2002/03	9,662,000	—
2003/04	9,845,000	1.9
2004/05	10,149,000	3.1
2005/06	10,355,000	2.0
2006/07	10,485,000	1.3
2007/08	11,048,000	5.4
2008/09	11,278,000	2.1
2009/10	11,812,000	4.7
2010/11	11,939,000	1.1
2011/12	12,306,000	3.1
2012/13	12,339,000	0.3

Source: HSCIC, 2013a

5. NHS sight tests

Chart 5.1a: Number of NHS sight tests (in millions) in England, 2002/03 to 2012/13



Source: HSCIC, 2013a

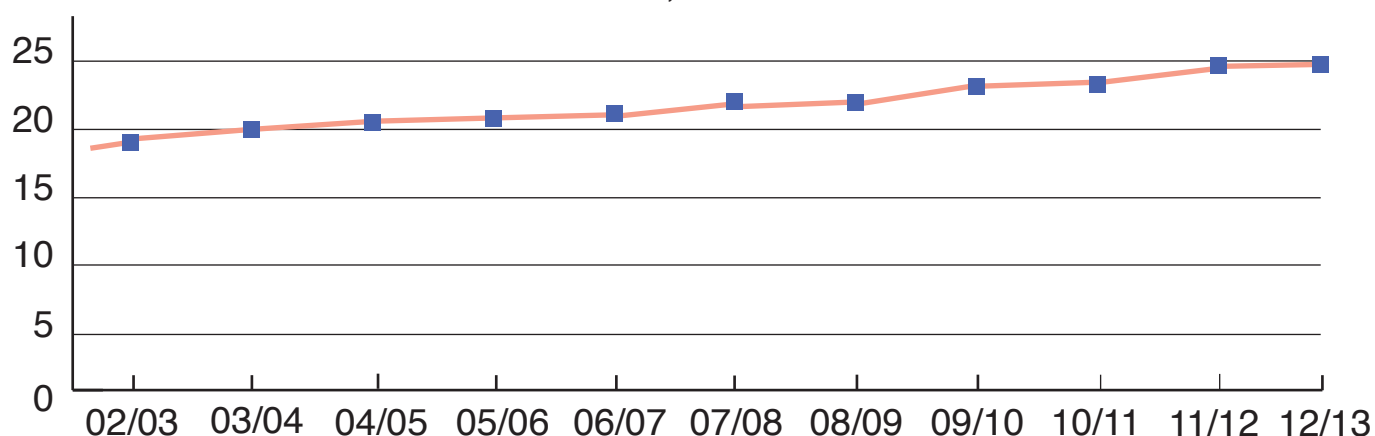
Table 5.1b: Rate of NHS sight tests per 100,000 people in England, 2002/03 to 2012/13

Years	Rate of NHS sight tests per 100,000 people
2002/03	19,461
2003/04	19,744
2004/05	20,254
2005/06	20,518
2006/07	20,654
2007/08	21,618
2008/09	21,915
2009/10	22,798
2010/11	22,856
2011/12	23,171
2012/13	23,235

Source: HSCIC, 2013a

5. NHS sight tests

Chart 5.1b: Rate of NHS sight tests per 100,000 people in England, 2002/03 to 2012/13 Source: HSCIC, 2013a



5.2 NHS sight tests by patient eligibility

The largest group of people receiving an NHS sight test in 2012/13 were recorded under the eligibility criteria of “Aged 60 and over”; 44 per cent of all NHS sight tests were for this group. “Children aged 0–15” made up 19 per cent of all NHS sight tests. “Adults receiving income support” made up 9 per cent and “adults receiving tax credits” made up 6 per cent. Finally, “diabetes/ glaucoma sufferers” made up 7 per cent and “close relatives 40 and over of glaucoma sufferers” made up 6 per cent of NHS sight tests in 2012/13.

Table 5.2: Number and percentage of NHS sight tests by patient eligibility in England, 2012/13 Source: HSCIC, 2013

	Number in 1,000s	Per cent
Aged 60 and over	5,481	44.4
Children 0–15	2,350	19.0
Students 16–18	542	4.4
Adults receiving income support	1,109	9.0
Adults receiving tax credits	683	5.5
Adults receiving JSA	324	2.6
Low income certificate holders (HC2)	98	0.8
Registered blind/partially sighted	17	0.1
Diabetics/Glaucoma sufferers	907	7.4
Need complex lenses	92	0.7
Close relatives 40 and over of glaucoma sufferers	735	6.0
Prisoner on leave	1	0.0
Total	12,339	100.0

6. Outpatients

The information in this section is taken from [Hospital Episode Statistics](#).

6.1 Total number of outpatients

There were 6.8 million outpatient attendances under the three ophthalmic specialities in 2011/12 (i.e. Ophthalmology, Paediatric Ophthalmology and Medical Ophthalmology). The number of people who has an ophthalmic appointment for the first time was 1.8 million (HSCIC, 2012a).

Overall, the main ophthalmology classification has the second highest number of outpatient attendances for any speciality; accounting for 8.9 per cent of all outpatient attendances. The speciality with the highest number of attendances was Trauma & Orthopaedics (7.4 million). The other top five most frequently attended specialities were Obstetrics (3.4 million), Physiotherapy (3.1 million) and Dermatology (3 million).

Table 6.1: Outpatient attendances by ophthalmic speciality in England, 2011/12

Speciality	All attendances	Attended first appointment
Ophthalmology	6,485,109	1,679,188
Paediatric Ophthalmology	214,617	61,761
Medical Ophthalmology	107,498	31,294
Total	6,807,224	1,772,243

Source: HSCIC, 2012a

6.2 Age of outpatients

Over 60 per cent of all outpatients were aged 60 years and over, with one-fifth being over 80 years. Children and young people aged 0–19 attended over 750,000 ophthalmic appointments (12 per cent).

6. Outpatients

Table 6.2: Ophthalmology outpatients by age in England, 2011/12

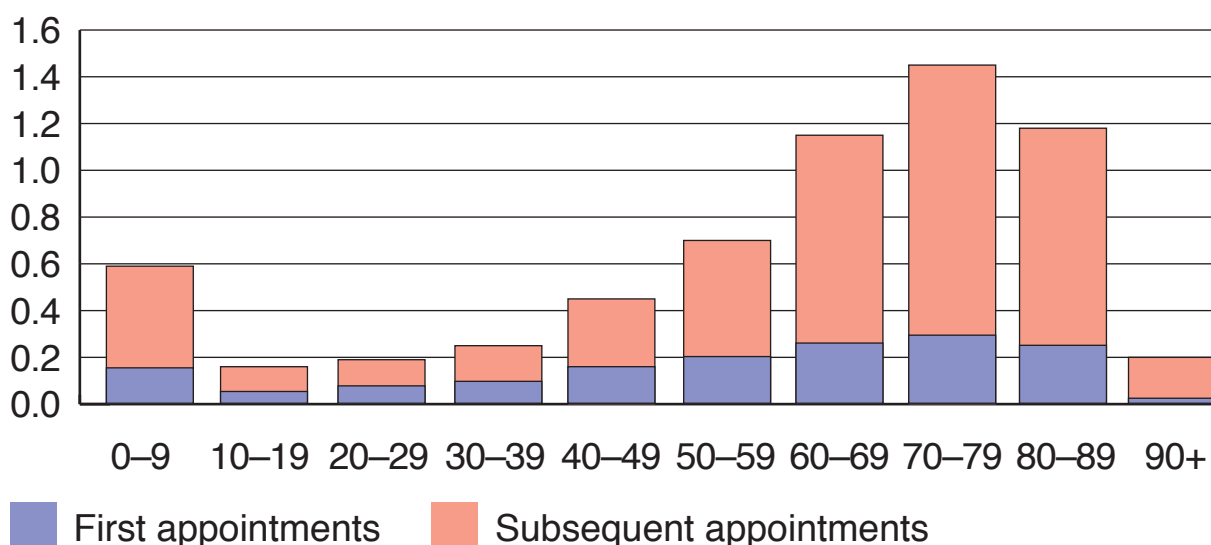
Age	Total number of outpatients	Percentage of total attendances	Number of first time outpatients	Percentage of first time outpatients
0–9	592,211	9.4	172,053	10.3
10–19	162,019	2.6	60,189	3.6
20–29	188,730	3.0	80,459	4.8
30–39	265,736	4.2	102,419	6.1
40–49	469,679	7.4	162,270	9.7
50–59	690,629	10.9	204,368	12.2
60–69	1,144,707	18.1	299,461	17.9
70–79	1,441,183	22.8	319,666	19.1
80–89	1,170,584	18.5	231,919	13.9
90+	201,743	3.2	38,710	2.3
Unknown	128	–	109	–
Total	6,327,349		1,671,623	

Source: HSCIC, 2012b and 2012c

Note: The totals are different in this table because age breakdown is only available in the “Attendances” dataset (which is based on the registered speciality of the consultant). In the other tables the “Treatment speciality” dataset has been used (which is based on speciality the consultant is currently working).

Chart 6.2: Ophthalmology outpatients by age in England, 2011/12

(Millions)



Source: HSCIC, 2012b and 2012c

6. Outpatients

6.3 Outpatients by diagnosis

There is very limited information on why patients attend an outpatient ophthalmology appointment as primary diagnosis is not a mandated field in the outpatients dataset (HSCIC, 2012d). As a result coverage is poor (overall 96 per cent of records return “Unknown or unspecified”).

6.4 Trends in outpatient appointments

The total number of outpatient appointments relating to eye health has been increasing over recent years. In 2010/11 there were 6.8 million appointments for the specialities “ophthalmology”, “paediatric ophthalmology” and “medical ophthalmology”. This was an increase of over 1.7 million more appointments than in 2005/06.

The number of people attending their first appointment has also increased over the same period, from 1.4 million to 1.8 million per year.

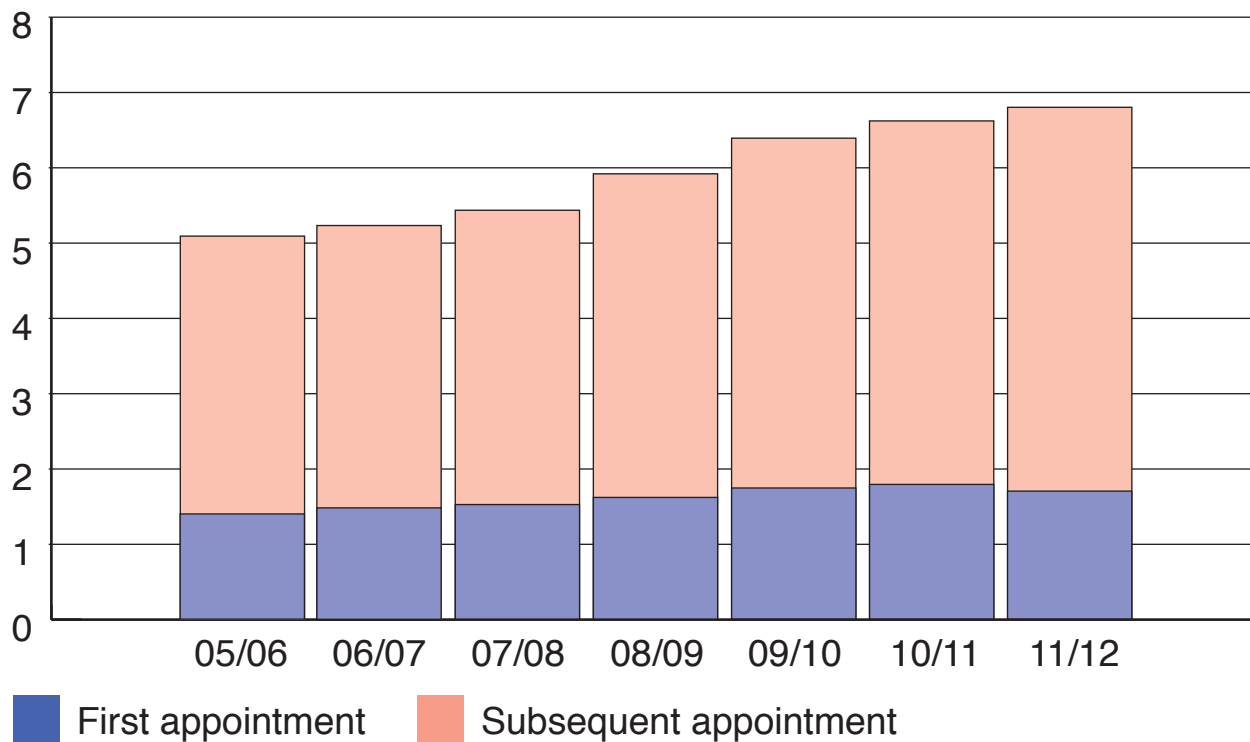
Table 6.4: Ophthalmology, paediatric ophthalmology and medical ophthalmology outpatient appointments (combined) in England, 2005/06 to 2011/12

Years	All appointments	Attended first appointment	Attended subsequent appointment
2005/06	5,097,340	1,362,386	3,731,414
2006/07	5,233,633	1,417,410	3,787,658
2007/08	5,437,114	1,530,593	3,900,292
2008/09	5,914,541	1,646,925	4,267,031
2009/10	6,391,672	1,787,533	4,600,694
2010/11	6,626,204	1,816,308	4,809,811
2011/12	6,807,224	1,772,243	5,034,981

Source: HSCIC 2012a, 2011b, 2010a, 2009a, 2008b, 2007a and 2006b

6. Outpatients

Chart 6.4: Ophthalmology, paediatric ophthalmology and medical ophthalmology outpatient appointments (combined) in millions in England, 2005/06 to 2011/12



Source: HSCIC, 2012a, 2011b, 2010a, 2009a, 2008b, 2007a and 2006a

7. Inpatients

Inpatients are patients who are admitted to hospital for treatment, either for the day or overnight. The information in this section is taken from Hospital Episode Statistics.

7.1 Total number of inpatients

In 2011/12, there were 620,000 finished consultant episodes under the ophthalmology speciality (HSCIC, 2012e). The vast majority (94 per cent) of ophthalmic treatments and procedures were carried out as day cases.

7.2 Age of inpatients

The average age of ophthalmic patients admitted for treatment was 69, and nearly half of all patients were aged 75 years or more. There were 18,300 children aged 0–14 who were admitted for ophthalmic treatment in 2011/12.

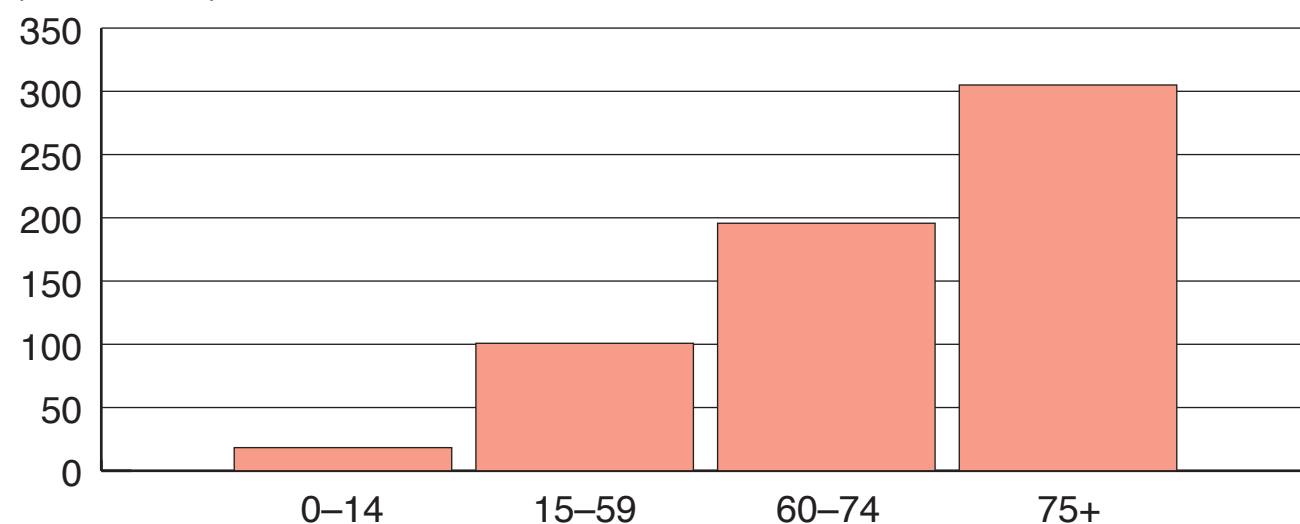
Table 7.2: Age of ophthalmology inpatients in England, 2011/12

Age	Number of patients	Percentage
0–14	18,306	3.0
15–59	100,867	16.3
60–74	195,780	31.6
75+	305,012	49.2
Unknown	313	0.1
Total	620,278	

Source: HSCIC, 2012e

Chart 7.2: Age of ophthalmology inpatients in England, 2011/12

(Thousands)



Source: HSCIC, 2012e

7. Inpatients

7.3 Trends in ophthalmology admissions

The number of patients admitted for ophthalmic treatment is increasing. In 2005/06, there were a reported 491,000 finished consultant episodes linked to ophthalmology. In 2011/12, this had increased to 620,000 episodes. This represents an increase of 26 per cent over this period.

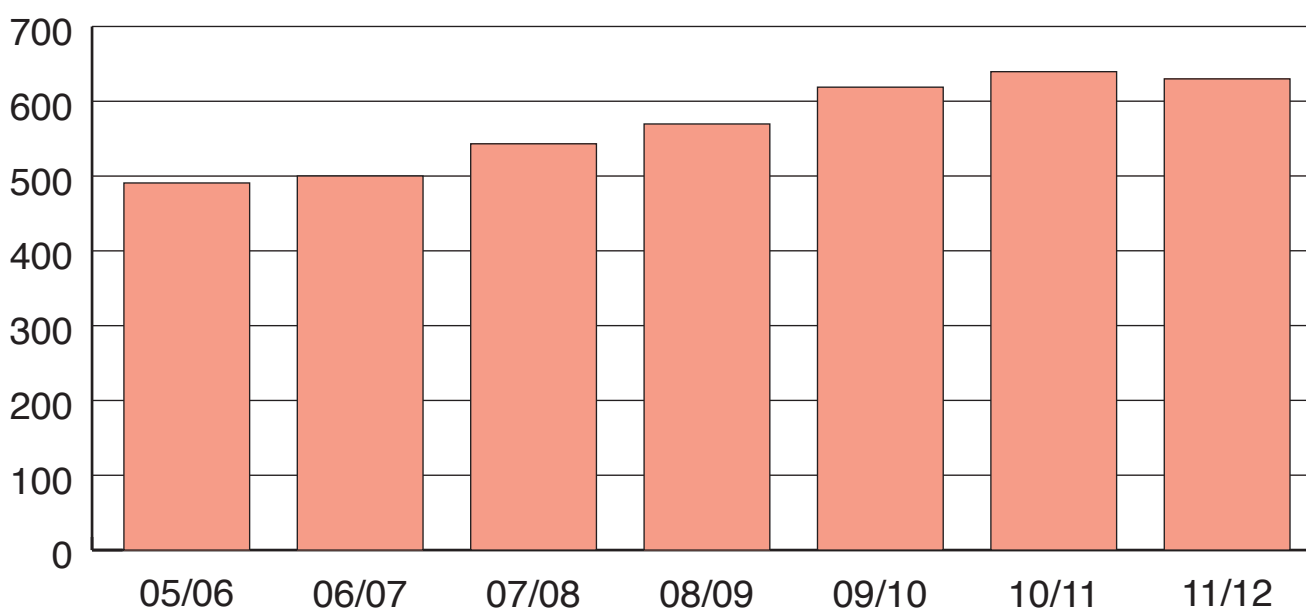
Table 7.3: Ophthalmology inpatient finished consultant episodes in England, 2005/06 to 2011/12

Years	Number of finished consultant episodes
2005/06	490,899
2006/07	492,576
2007/08	539,136
2008/09	587,363
2009/10	612,930
2010/11	629,682
2011/12	620,278

Source: HSCIC, 2012e, 2011c, 2010b, 2009b, 2008c, 2007b and 2006c

Chart 7.3: Ophthalmology inpatient finished consultant episodes in England, 2005/06 to 2011/12

(Thousands)



Source: HSCIC, 2012e, 2011c, 2010b, 2009b, 2008c, 2007b and 2006c

7. Inpatients

7.4 Inpatients by main procedure

The most frequent procedures linked to the eye were “Anterior chamber of eye and lens”, which include cataract surgery. There were 341,000 procedures performed, representing 57 per cent of episodes. Other frequent procedures were linked to the treatment of the “Retina, other parts of eye and anaesthetics” (123,000 episodes) and “Eyebrow and eyelid” (75,000 episodes).

Table 7.4: Main procedures or interventions linked to treatment of the eye in England, 2011/12

Main procedure or intervention (summary codes)	Number of finished consultant episodes	Percentage of total FCE related to treatment of the eye
C1 Orbit (C01–C08)	3,843	0.6
C2 Eyebrow and eyelid (C09–C22)	74,628	12.5
C3 Lacrimal apparatus (C24–C29)	12,652	2.1
C4 Muscles of eye (C31–C37)	11,908	2.0
C5 Conjunctiva and cornea (C39–C51)	12,864	2.2
C6 Sclera and iris (C52–C65)	17,507	2.9
C7 Anterior chamber of eye and lens (C66–C77)	340,729	57.0
C8 Retina, other parts of eye and anaesthetics (C79–C90)	123,267	20.6
C EYE (C01–C90)	597,398	

Source: HSCIC, 2012f

7.5 Inpatients by diagnosis

For episodes where a diagnosis was recorded, 60 per cent of ophthalmic inpatients were admitted for treatment of disorders of the lens, which includes cataract; 36 per cent were admitted for “other disorders of the eye”; 3.5 per cent were admitted for treatment of glaucoma; and 1 per cent for treatment of “disorders of conjunctiva”.

7. Inpatients

Table 7.5: Ophthalmic inpatients by primary diagnosis in England, 2011/12

Primary diagnosis	Finished Consultant Episodes	Percentage of FCE with primary diagnosis related to the eye
Other disorders of the eye	215,333	36.7
Disorders of conjunctiva (including conjunctivitis)	5,428	0.9
Disorders of lens (including cataracts)	346,697	59.0
Glaucoma	19,925	3.4
Total	587,383	

Source: HSCIC, 2012g

8. Waiting times

Data for amount of time people have to wait for treatment is one of the key indicators in the NHS. Information in this section is taken from Referral to Treatment waiting time statistics, published by the Department of Health.

In England, waiting time information is published as a measure of Referral to Treatment (RTT). There are 3 classifications for patient pathways:

- Admitted pathways – waiting times for patients whose treatment started during the month and involved admission to hospital. For example, a cataract referral leading to admission for cataract surgery. Adjustments are made to admitted pathways where a patient had declined reasonable offers of admission and chosen to wait longer;
- Non-admitted pathways – waiting times for patients whose treatment started during the month and did not involve admission to hospital. For example, a diabetic patient requiring outpatient laser treatment; and
- Incomplete pathways – waiting times for patients still waiting to start treatment at the end of the month.

There are a series of publications outlining the methodology and rules that govern waiting time statistics.

8.1 Admitted pathways

In 2012, 479,000 patients started admitted treatment under the ophthalmology speciality (DH, 2013a). The national standard for admitted waiting times is that 90 per cent of patients should start their treatment within 18 weeks of their referral. In 2012, 93.7 per cent of patients under the ophthalmology speciality started their admitted treatment within 18 weeks of their referral.

8.2 Non-admitted pathways

In 2012, 998,000 patients started non-admitted treatment under the ophthalmology speciality (DH, 2013a). The national standard for non-admitted waiting times is that 95 per cent of patients should start their treatment within 18 weeks of their referral. In 2012, 97.5 per cent of patients under the ophthalmology speciality started their non-admitted treatment within 18 weeks of their referral (DH, 2013a).

8. Waiting times

8.3 Incomplete pathways

At the end of 2012, 271,000 patients were waiting for their treatment to begin. The national standard for incomplete pathways is that 92 per cent of patients should not have been waiting for longer than 18 weeks. In December 2012, 95.7 per cent of patients who were waiting to their ophthalmology treatment had been waiting for less than 18 weeks (DH, 2013a).

9. Expenditure

9.1 Programme budgets

Programme budgets are the most comprehensive measure of expenditure on health care in England. They provided detailed information by the Primary Care Trust on expenditure related to different disease categories and care settings. There is a classification of “Problems of vision” which enables us to identify expenditure on eye health.

In 2011/12, the expenditure on “Problems of vision” was £2.26 billion. This equates to a £42.84 spend on eye health per person in England in that year.

Since 2003/04 there has been an increase in expenditure on “Problems of vision”. In the subsequent eight years there has been an 87 per cent increase in expenditure; with the spend per person increasing from £24.61 in 2003/04 to £42.84 in 2011/12.

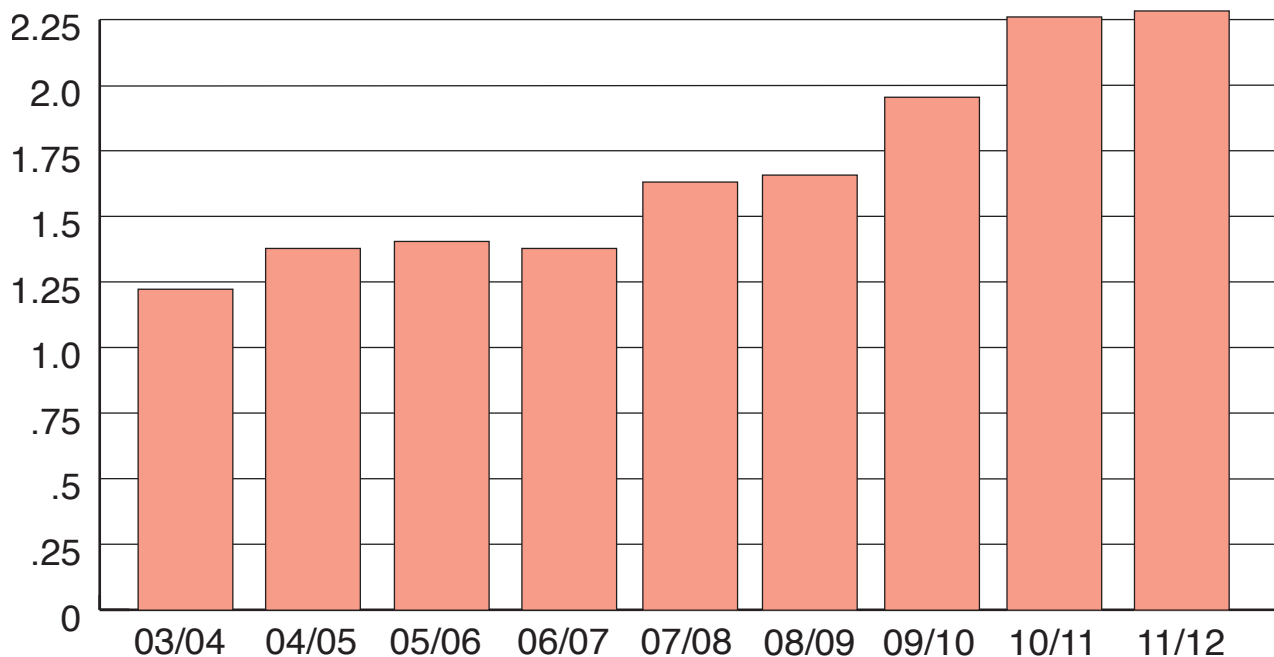
Table 9.1: Gross expenditure for “Problems of vision” in England, 2003/04 to 2011/12

Years	Total expenditure (in billions)	Spend per person
2003/04	£1.21	£24.61
2004/05	£1.36	£27.65
2005/06	£1.39	£28.24
2006/07	£1.36	£26.97
2007/08	£1.56	£30.69
2008/09	£1.69	£32.95
2009/10	£1.98	£38.06
2010/11	£2.24	£42.69
2011/12	£2.26	£42.84

Source: DH, 2013b

9. Expenditure

Chart 9.1: Gross expenditure for “Problems of vision” (in billions) in England, 2003/04 to 2011/12



Source: DH, 2013b

9.2 Expenditure type

NHS Programme Budgets also highlight expenditure by care setting. This allows us to gain some insight into how the £2.26 billion expenditure on problems of vision was allocated.

Over 60 per cent of expenditure on problems of vision took place within secondary care, mainly providing inpatient and outpatient care; 31 per cent took place within primary care; five per cent in other care settings; 2 per cent within the urgent/emergency care setting; and 0.1 per cent on prevention and health promotion.

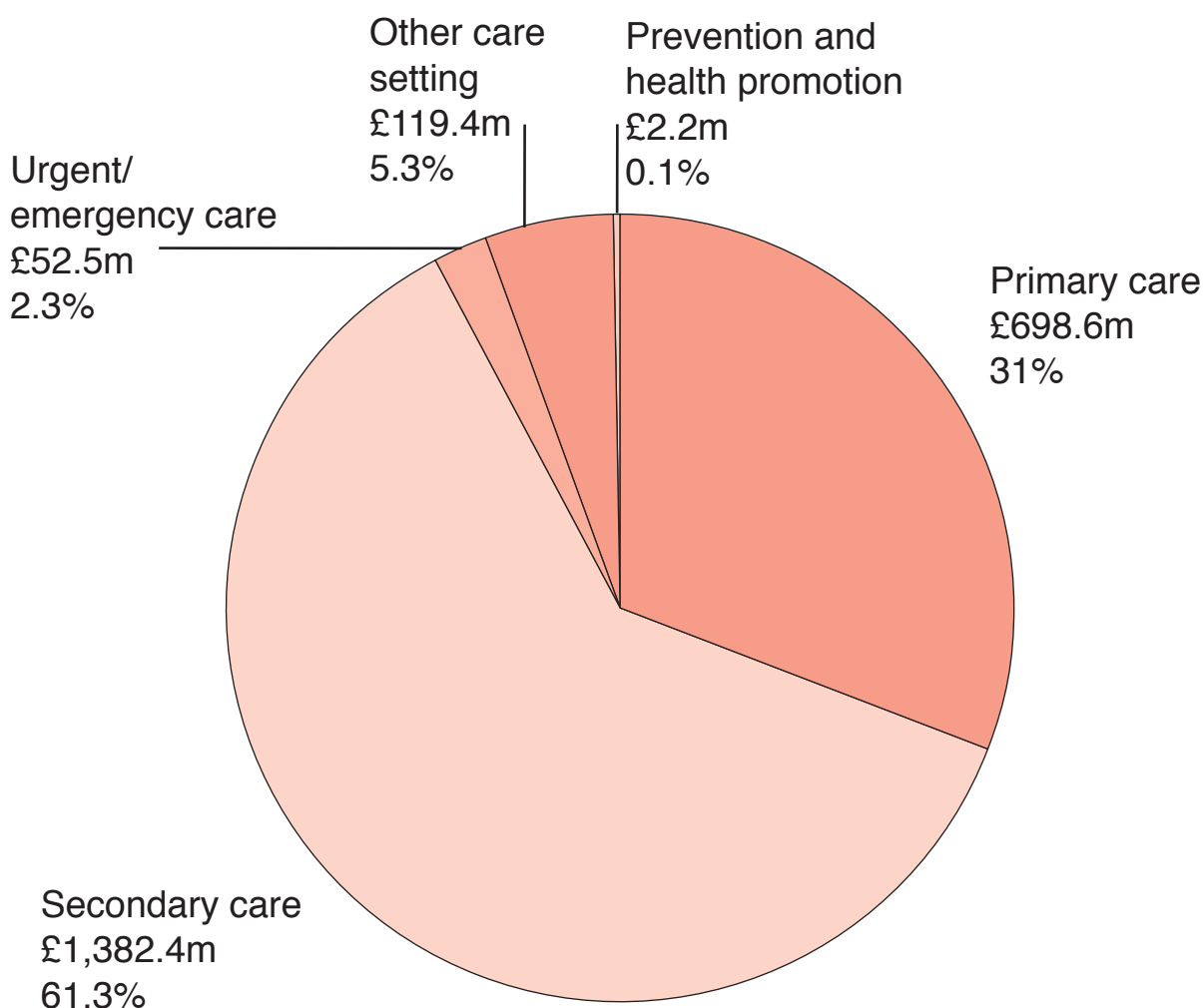
9. Expenditure

Table 9.2: “Problems of vision” expenditure by care setting, 2011/12

Care setting	Total spend	Percentage of overall spend
Prevention and health promotion	£2.2million	0.1
Primary care	£698.6million	31.0
Secondary care	£1,382.4million	61.3
Urgent/emergency care	£52.5million	2.3
Other care setting	£119.4million	5.3

Source: DH, 2013b

Chart 9.2: “Problems of vision” expenditure by care setting, 2011/12



Source: DH, 2013b

9. Expenditure

9.3 Community prescription

Community prescriptions cover all medication dispensed in the community, including those written in a hospital but dispensed in the community. Prescriptions dispensed in a hospital are not covered.

In 2012, the cost of community prescriptions related to the treatment of the eye was £155million. This total related to over 20 million dispensed items, at an average cost of £7.73. By far the highest cost was linked to the treatment of glaucoma, which represented over two-thirds of the total cost of eye health prescriptions.

The number of items dispensed for treatment of the eye is increasing, with over 500,000 more items dispensed in 2012 when compared to the previous year. However, there was a decrease in the net cost of these items, with a reduction of £12million in 2012 when compared to the previous year.

Table 9.3: Community prescriptions by classification in England, 2012

Classification	Items dispensed	Cost
Anti-infective eye preparations	2,759,340	£6,588,099
Corticosteroids and other anti-inflammatory preparations	2,561,880	£10,695,403
Mydriatics and cycloplegics	98,753	£1,158,249
Treatment of glaucoma	8,269,061	£105,185,687
Local anaesthetics	2,049	£8,849
Miscellaneous ophthalmic preparations	6,355,635	£31,404,240
Total	20,046,718	£155,040,528

Source: HSCIC, 2013b

10. Treatments

There is a range of different information available for specific treatments related to eye health. Some of these proven treatments such as Lucentis for the treatment of wet AMD, diabetic retinopathy screening, glaucoma prescriptions and cataract operations are particularly significant for the prevention of avoidable sight loss.

10.1 Wet AMD

In 2011, Ranibizumab (Lucentis) was the fourth most costly drug issued in the NHS. The total cost of prescriptions was £155million, which represents around one per cent of the total NHS prescribing expenditure.

The cost of Lucentis prescriptions is increasing, between 2010 and 2011 there was a 20 per cent increase in the cost of Lucentis prescriptions.

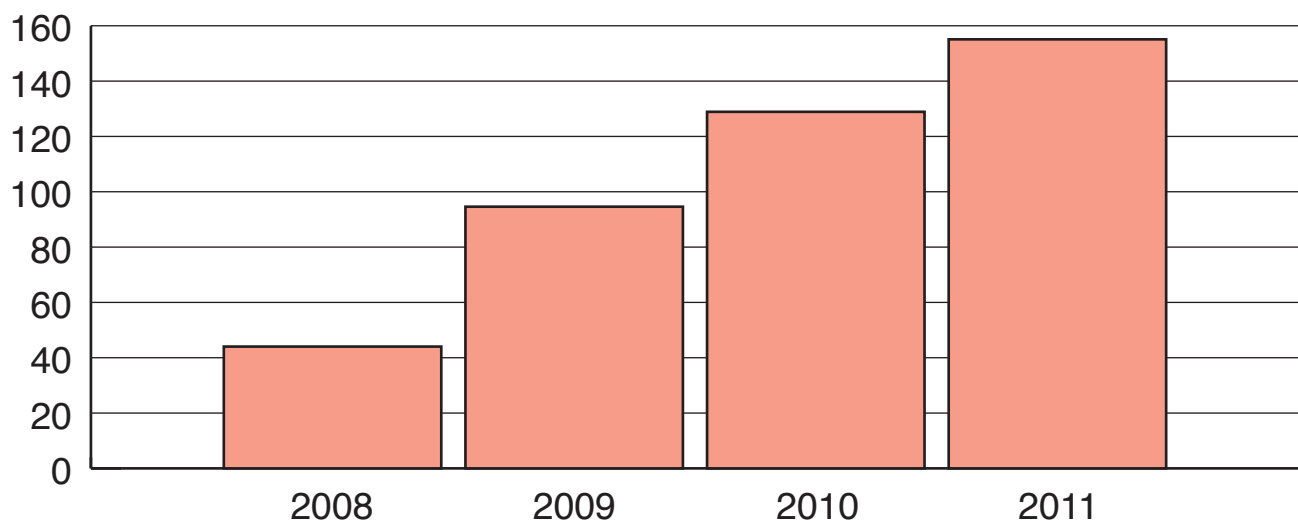
Table 10.1: Cost of Lucentis prescriptions in England, 2008 to 2011

Years	Overall cost of Lucentis prescriptions
2008	£44,036,900
2009	£94,695,500
2010	£128,987,000
2011	£155,163,387

Source: HSCIC, 2012h, 2011e, 2010d and 2009c

Chart 10.1: Cost of Lucentis prescriptions in England, 2008 to 2011

(Millions)



Source: HSCIC, 2012h, 2011e, 2010d and 2009c

10.2 Diabetic retinopathy

The diabetic retinopathy screening programme is the only eye health screening programme throughout the UK. The aim of screening is to reduce sight loss caused by diabetic retinopathy by facilitating early diagnosis and treatment.

In 2011/12, there were 2.59 million patients identified as having diabetes by GP practices in England; an increase of 4.9 per cent over the previous year. Of these patients, 2.36 million were offered screening, with 248,000 people excluded from the screening programme. Of those offered screening, 1.91 million took part, a 6.8 per cent increase on 2010/11 (NSC, 2012).

The overall performance of the diabetic retinopathy screening programme, in England, in 2011/12 was therefore:

- Coverage = 73.9 per cent (proportion of people identified with diabetes who were screened); and
- Uptake = 80.9 per cent (proportion of people offered screening who were screened).

10.3 Glaucoma

Prescriptions

£105.2million was spent on glaucoma medications in England in 2012. Although this total includes prescriptions written in hospitals and dispensed in the community, it is an underestimate of the actual total net cost of glaucoma medication as it does not include prescriptions dispensed in hospitals. This is also not the overall true cost of glaucoma prescriptions as it does not take into account expenditure related to dispensing items nor income from prescription payments.

In 2012, there were 8.3 million items dispensed for the treatment of glaucoma. The average cost per item was £12.72 (HSCIC, 2013b).

Both the overall cost and number of item dispensed linked to glaucoma has increased. Since 2005, the number of items dispensed to patients for the treatment of glaucoma has increased by one-third from 6.2 million to 8.3 million items. In 2012 there was a decrease in the cost of glaucoma prescriptions, which was due to a reduction in the average cost per item.

10. Treatments

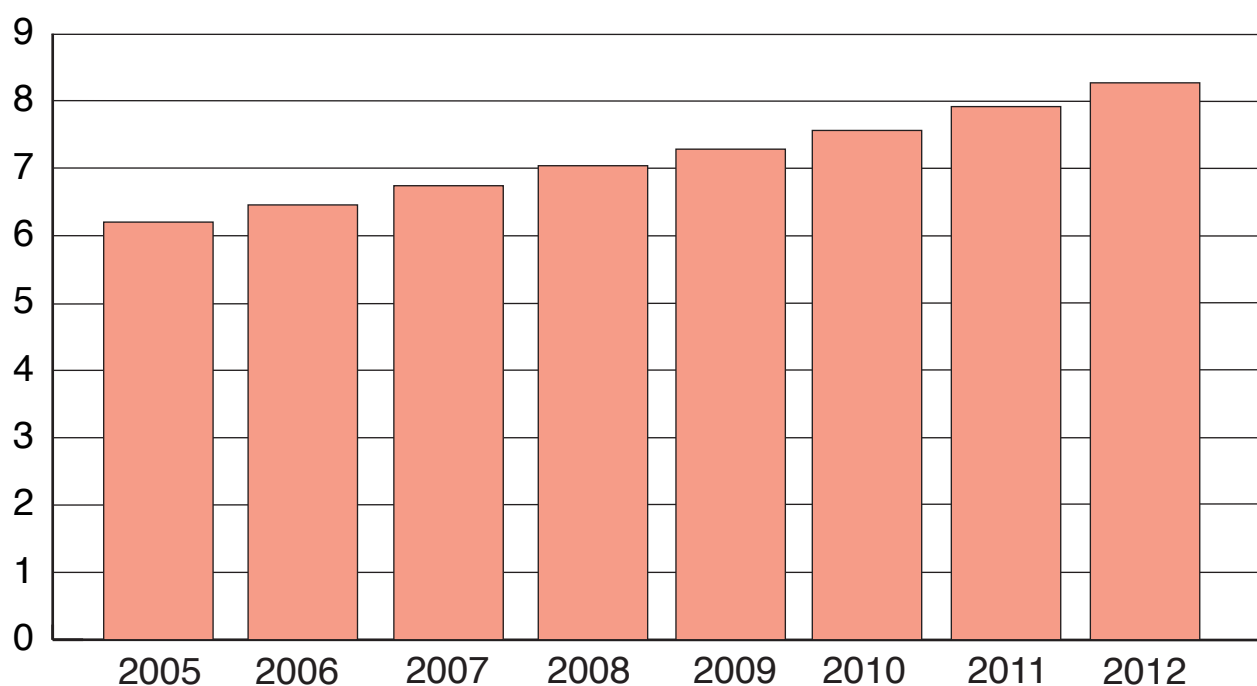
Table 10.3: Number of prescription items dispensed (millions) related to the treatment of glaucoma in England, 2005 to 2012

Years	Items dispensed related to the treatment of glaucoma	Net cost of items dispensed	Net cost per item
2005	6,202,900	£85,720,900	£13.82
2006	6,457,442	£91,218,093	£14.13
2007	6,742,713	£97,566,365	£14.47
2008	7,039,379	£109,720,417	£15.59
2009	7,285,005	£107,409,176	£14.74
2010	7,563,659	£112,244,480	£14.84
2011	7,917,278	£114,842,067	£14.51
2012	8,269,061	£105,185,687	£12.72

Source: HSCIC, 2013b

Chart 10.3: Number of prescription items dispensed (millions) related to the treatment of glaucoma in England, 2005 to 2012

(Millions)



Source: HSCIC, 2013b

10. Treatments

10.4 Cataract

Cataract extraction with intraocular lens implantation for age-related cataract is the commonest surgical intervention performed on the NHS in England (NHS Right Care, 2011).

There were 337,000 cataract operations in England in 2011/12. 98 per cent of cataract operations were carried out as day cases. The average age for those undergoing a cataract operation was 74.4 years. 95 per cent of cataract operations were carried out from a waiting list. The mean waiting time was 65 days, and the median waiting time was 57 days (HSCIC, 2012i).

Over the last decade there has been a significant increase in the number of cataract operations performed by the NHS in England. There are now almost 100,000 more cataract operations than a decade ago, an increase of 39 per cent over this time period. However, there has been a decrease in the number of operations over the previous two years. The latest figures show almost 12,000 fewer operations were carried out when compared to 2009/10, a decrease of over 3 per cent (HSCIC, 2012i, 2011d, 2010e).

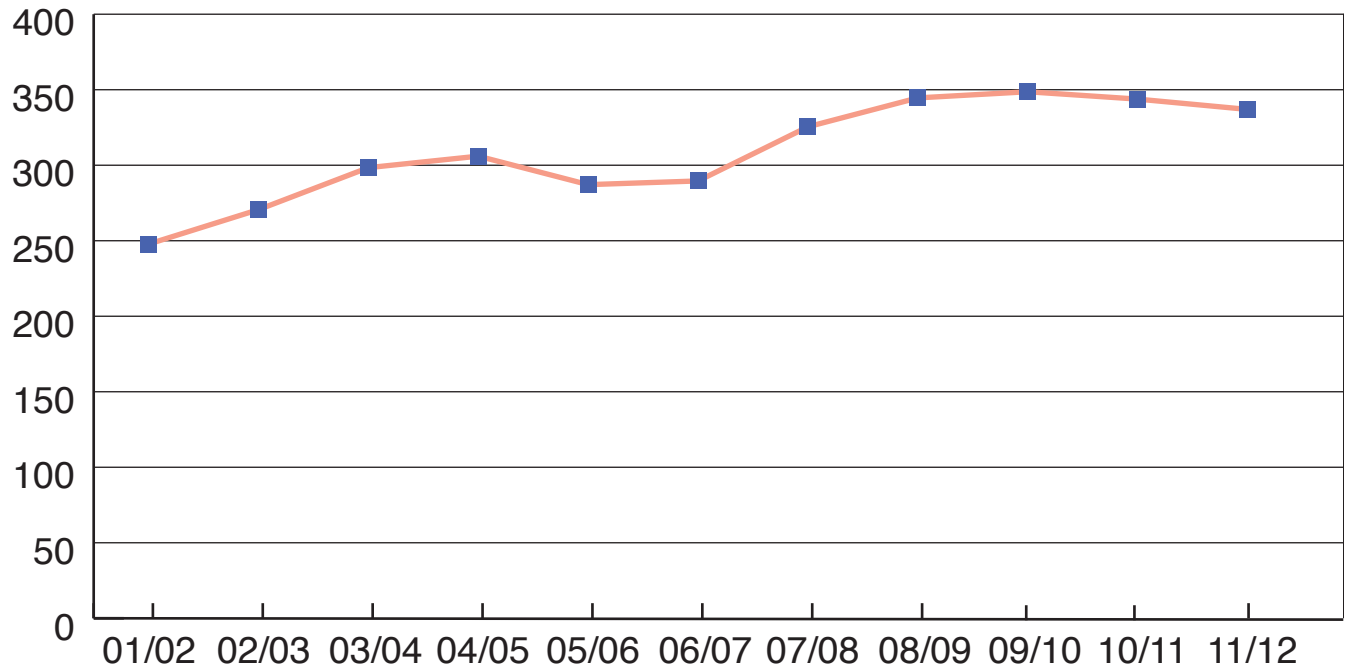
Table 10.4: Number of cataract procedures performed by the NHS in England, 2001/02 to 2011/12

Years	Number of finished cataract procedures
2001/02	247,847
2002/03	270,605
2003/04	298,404
2004/05	306,063
2005/06	287,144
2006/07	289,590
2007/08	325,471
2008/09	344,591
2009/10	348,660
2010/11	343,782
2011/12	336,967

Source: HSCIC, 2012i

10. Treatments

Chart 10.4: Number of cataract procedures performed (in thousands) by the NHS in England, 2001/02 to 2011/12



Source: HSCIC, 2012i

Appendix A: Summary of data sources

Title	Topic	Frequency	Data
Public Health Outcomes Framework Data Tool	Certification	Annual	<ul style="list-style-type: none"> Total number of CVIs and by AMD, glaucoma and diabetic eye disease Rate of CVIs per 100,000 people Local authority level data available
Registered Blind and Partially Sighted People	Registration	Triennial	<ul style="list-style-type: none"> Overall number of people registered New registrations Additional disabilities Local authority level data available
General Ophthalmic Services, activity statistics	Sight tests	Annual (with provisional mid-year update covering data from April to September)	<ul style="list-style-type: none"> NHS sight tests Domiciliary sight tests NHS optical vouchers NHS vouchers for repair and replacement PCT level data available
General Ophthalmic Services, workforce data	NHS sight tests	Annual	<ul style="list-style-type: none"> Practitioners PCT level data available
Hospital Episode Statistics, outpatients	Outpatients	Annual (provisional headline data is published monthly, but this can not be filtered by speciality)	<ul style="list-style-type: none"> A number of different datasets are available Outpatient attendances Main or treatment speciality Provider level analysis

Appendix A: Summary of data sources

Title	Topic	Frequency	Data
Hospital Episode Statistics, inpatients	Inpatients	Annual	<ul style="list-style-type: none"> • A number of different datasets are available • Headline figures • Primary diagnosis (varying level of detail) • Main interventions and procedures (varying level of detail) • External cause • Healthcare Resource Groups • Provider level analysis
Referral to Treatment statistics	Waiting times	Monthly data releases, with annual report	<ul style="list-style-type: none"> • Provider data (regional/ PCT level) • Commissioner data (NHS trust level)
Programme budgets	Expenditure	Annual	<ul style="list-style-type: none"> • Overall spend by health programme • Spend per person • PCT level data available • Spend by care setting
NHS Reference Costs	Expenditure	Annual	<ul style="list-style-type: none"> • Detailed breakdown of hospital based activity • Cost of inpatient and outpatient activity
Prescription cost analysis	Prescriptions	Annual	<ul style="list-style-type: none"> • Overall spend on prescriptions • Number of items dispensed
Hospital prescribing	Treatments	Annual	<ul style="list-style-type: none"> • Cost of prescriptions issued in hospitals – including Lucentis
Diabetic screening programme	Screening	Annual report	<ul style="list-style-type: none"> • Headline figures and report on the delivery of the national diabetic retinopathy screening programme

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Appendix C: References

Further information and links to all the references listed in this section can be found at RNIB's Knowledge and Research Hub:

rnib.org.uk/research

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