QUESTION FROM THE PUBLIC TO THE CABINET MEETING ON 17 NOVEMBER 2020

Peter Blackman – Electric Scooter Trial

In proposing to trial the use of electric scooters in Chelmsford, what cognisance has been taken by Chelmsford City Council of the attached 'Advice for local authorities considering hosting e-scooter trials' and 'Advice for e-scooter operators participating in rental e-scooter trials', in particular to ensure the safety of the over 6,000 people in the City's area known to be visually impaired (as identified in the RNIB's attached 'Essex: eye health and sight loss report')? In Para 2.6 of the Report for this Item it is reported that the e-scooters in question will be bright orange which will help sighted people but there is nothing said about them being obliged to make loud enough noise to be heard by Visually Impaired People. In Para 2.8 the Report says Spin are (sic) committed to working with …. Access and Sight Groups. What such consultations has Chelmsford CC had and what such consultations does it require Spin to take? What safeguards will Chelmsford CC ensure are in place to ensure no Visually Impaired People are endangered by any e-scooter trail before it is permitted to start?

Advice for local authorities considering hosting e-scooter trials

You may be considering running an e-scooter rental trial programme in your local authority area. Micromobility vehicles such as e-scooters are extremely difficult for blind and partially sighted people to see, and operate quietly which also makes them difficult to hear. It may not always be obvious to someone driving a micromobility vehicle that they are approaching a pedestrian with sight loss. The difficulties in these two groups detecting one another make interactions between the two potentially dangerous.

The Department for Transport has approved specifications for e-scooters which are faster, heavier and have greater acceleration than in other European countries. We believe it is essential for local authorities to set additional local rules to make these vehicles safer for pedestrians with disabilities.

We have produced this advice to help local authorities consider how they might act to make these schemes more accessible. However, we remain concerned that even with these mitigations, these vehicles will still be likely to impact negatively on pedestrians.

Consultation with local disabled people

Under the Public Sector Equality Duty, you need to consider how people with protected characteristics may be affected by any temporary or permanent changes. Changes must not discriminate against blind and partially sighted people by, for example, placing them at a substantial disadvantage when accessing local amenities. Please consider how you will:

- **Conduct Equality Impact Assessments of rental e-scooter trials**, consulting with disabled people in an accessible way, and considering steps to mitigate against any negative impacts or making alternative proposals.
- **Conduct consultations with local disabled people**, including blind and partially sighted people, about decisions on where and how trial rental e-scooter schemes are set up. Local sight loss societies and

groups can be found by contacting Visionary or the Thomas Pocklington Trust, contact information below.

Parking

Dockless vehicles obstruct walkways and present dangerous trip hazards to pedestrians, particularly those with sight loss. For long-term use, accessibly designed fixed docking stations are the only safe parking solution for rental hire vehicles. However, if this isn't possible for short-term pilot rental schemes:

- **Create designated parking bays for e-scooters, where a detectable kerb (with a minimum height of 60mm) separates walkways from parked e-scooters.** Road car parking spaces should be repurposed for e-scooter parking as this will reduce the need for changes to infrastructure to create kerbs. E-scooter operators can pay local authorities for the use of road car parking spaces so no revenue from these is lost.
- **Strong mechanisms to enforce compliance with parking rules should be written into tender and contract documents.**
- **Monitoring of adherence to parking requirements is essential,** and plans should be in place to move any e-scooters not parked in a designated bay as quickly as possible to avoid pavement obstructions.
- **Consider instating a cap on e-scooter numbers to ensure that parking facilities are not overwhelmed**.

Infrastructure

Having accessible and reliable infrastructure in place is crucial for ensuring the safety of disabled pedestrians. For example:

- **Pavements and footways with a detectable kerb with a minimum height of 60mm, and accessible, signal-controlled pedestrian crossings (such as pelican crossings), with correctly installed tactile paving**, on roads and cycleways, are essential for blind and partially sighted people to navigate safely and independently.
- **Street and infrastructure designs which encourage pedestrians to share space with cycles are inaccessible** (such as 'shared spaces', mini Hollands, bus stop bypasses/borders/floating bus stops, and Toucan crossing points) because they force blind and partially sighted people to mix with fast moving vehicles they cannot see or hear.

- **Until shared-space and mixed-use areas are made accessible with detectable kerbs e-scooters must not be allowed in these areas** as there will be a high risk of collision.
- **Where changes have been made to street design or use, these must be clearly and accessibly communicated to local blind and partially sighted people**. For example, new cycleways on roads or changes in vehicle direction can be dangerous for people with sight loss trying to safely cross because it is so difficult for them to detect silent vehicles like bicycles and e-scooters.
- **Careful consideration should be given to which areas should be restricted access for e-scooters**, such as near to hospitals, shared use spaces, around schools, shopping centres, pedestrian zones, or areas with high numbers of disabled or elderly people.
- **Prioritise e-scooter operators that can offer technological solutions to driver behaviour issues like bluetooth beacons or geofencing to stop e-scooters driving in restricted areas and restrict speeds in areas where this would be appropriate**.

Robust enforcement

Driver behaviour will be essential to the success of any e-scooter trials and so conversations with police and operators about how to encourage and enforce safe behaviours will be essential. Pavement cycling already has a severe impact on blind and partially sighted pedestrians, despite that fact that it is illegal. Without robust enforcement, e-scooters are likely to further compound this and take away people's independence.

- **Work with operators and the police to define how you will proactively enforce the rule prohibiting e-scooters on pavements with points on licence and fines**. Consider how this fits with tackling the behaviour of private e-scooter owners.
- **Make ongoing liaison, data collection, and reporting to local authorities and police about driver behaviour part of tender and contract documents with e-scooter operators.** This should include information about riding on the pavement and parking in designated bays.
- **Robust and prompt enforcement of any e-scooter not parked in a designated bay will be essential to the success of any scheme and preventing e-scooters becoming a nuisance. Again, build these into your contracted service standards for operators, with a clause that allows you to suspend the trial if they are not kept to.** Incorrectly parked e-scooters should be immediately removed by the operator and if not removed within a certain timescale (for example 1 hour of being abandoned) the local authority should have

a way of being notified and taking action. E-scooters on pavements constitute an obstruction and a hazard to pedestrians. Problems with parking of rental e-scooters have led to litigation from disabled people in the United States.

Public awareness

- **Consider how to raise local awareness of why driving e-scooters safely and following the Highway Code is so important**, including the potential impact of pavement riding and obstructions on disabled people's safety, confidence and independence. This could be included in your tender requirements for potential operators.
- **Preference should be given to operators who are able to deliver training and support to new drivers**. Evidence shows first time e-scooter drivers are more likely to get injured because they are unfamiliar with the vehicles. Compulsory in-app training and capping the speed that new e-scooter drivers can drive at to a lower speed than experienced drivers would help address this.
- **Preference should be given to operators whose staff have undergone effective disability awareness training which includes an understanding of sight loss**. This will ensure they have the correct knowledge to train new drivers properly.

Design

- **Maximum speed limits for e-scooters must be implemented and guaranteed**, with consideration given to limiting to appropriate speeds for different areas. We think the maximum speed limit should be 12.5mph in line with other European countries, with consideration given to lower speed limits for certain areas, such as around schools. E-scooters must be prohibited from shared use spaces.
- **Preference should be given to operators offering e-scooters that make more noise when being driven** to help make them audibly detectable to pedestrians with sight loss. Local authorities should monitor the effectiveness of this and feed back to the Department for Transport to help long term evaluation.
- **Preference should be given to operators offering e-scooters with bells which are easily accessible** to the driver without them having to move their hands from the handlebars.
- **Preference should be given to operators offering e-scooters fitted with double or stable and wide kickstands** to reduce the risk of them falling over and causing obstruction or injury.

- **Preference should be given to operators offering e-scooters which have clear large text identification numbers** used to help enforcement of rules, for example to allow identification of individuals driving e-scooters irresponsibly.
- **Preference should be given to operators offering e-scooters with bright fluorescent colours and distinctive designs** which would make them easier to detect for people with sight loss, and more easily distinguishable from privately-owned e-scooters for police.
- **Preference should be given to operators offering e-scooters with daytime running lights.** This may aid visibility for pedestrians with low vision.

Complaints process

Many complaints processes are inaccessible and overly complicated, meaning disabled people often do not submit complaints about incidents they have had. It has been difficult or impossible for blind and partially sighted people to read visually displayed dockless bike identification numbers to make complaints about them obstructing pavements, and it's important that this is addressed before rental e-scooter trials begin so that local authorities are able to get a full picture of the impact of trials on pedestrians.

- **Complaints processes must be accessible and easy to use**. Websites and apps must meet web accessibility standards (i.e. the international WCAG 2.1 AA accessibility standard) including compatibility with screen reader and Zoom Text technology. Helplines must also be available for people who don't have access to the internet.
- **Complaints processes must be widely publicised in a variety of formats in trial areas**. For example: notifying local disability groups, announcements on local radio and online forums, notifying local key workers such as community health workers.
- **Preference should be given to companies who are able to use technology like GPS tracking and bluetooth beacons** to marry up any complaints from pedestrians about incidents with e-scooters with who was riding them at the time, and have workable and proportionate plans for tackling behaviour that leads to complaints.

Ongoing monitoring

- **Build processes to collect the experiences and impact of e-scooters on other street users**, particularly disabled pedestrians, from the start of the trial period, and think about how they can be

used to refine the trial as it progresses. These processes must be impartial and accessible, carried out by the local authority.

- **Robust processes for monitoring pavement riding, riding in restricted areas, and poor parking must be written into tender and contract documents.**
- **Ensure a full consultation and Equality Impact Assessment is conducted by the local authority at the end of the 12 month trial period**, on the operation of the scheme. Local authorities must feed into any national consultation with responses that include the impact rental e-scooter trials have had on blind and partially sighted people.
- **RNIB have launched a tool to collect the experiences of blind and partially sighted people in rental e-scooter trial areas,** available at: https://rnib.in/escootertrials and will be sharing our findings with the Department for Transport. If you go ahead with the trial please publicise this tool and RNIB will share its findings with you.

For more information about this advice, please contact:
RNIB: campaigns@rnib.org.uk
Guide Dogs: publicaffairs@guidedogs.org.uk
London Vision: info@londonvision.org
Thomas Pocklington: info@sightlosscouncils@org.uk

For details of your local sight loss organisation:

- Visionary (membership organisation for local sight loss charities): visionary@visionary.org.uk
- Sight Loss Councils, supported by the Thomas Pocklington Trust, Online: https://www.sightlosscouncils.org.uk/find-us

Document ends.

Advice for e-scooter operators participating in rental e-scooter trials

We have produced this advice for e-scooter operators and manufacturers to help make e-scooter rental schemes more accessible. We have produced similar guidance for local authorities which we will provide on request.

Micromobility vehicles such as e-scooters are extremely difficult for blind and partially sighted people to see, and operate quietly which also makes them difficult to hear. It may not always be obvious to someone using a micromobility vehicle that they are approaching a pedestrian with sight loss. The difficulties in these two groups detecting one another make interactions between the two potentially dangerous.

The outcome of the rental e-scooter trials in England, Scotland and Wales, and the prospects for the longer-term legalisation of e-scooters for rental and private use, depend on successfully resolving the conflict between e-scooters and disabled pedestrians. Companies must ensure their services do not discriminate, directly or indirectly, against disabled people.

Parking

Dockless vehicles obstruct walkways and present dangerous trip hazards to pedestrians, particularly those with sight loss. We have seen dockless bikes obstructing pavements in London having a huge impact on blind and partially sighted people and it is essential to avoid this with e-scooter rental hire schemes. For long-term use, accessibly designed fixed docking stations are the only safe parking solution for rental hire vehicles. However, if this isn't possible for short-term pilot rental schemes road car parking spaces should be repurposed for e-scooter parking. To minimize the impact on disabled pedestrians:

- **Rental e-scooters must always be parked in designated parking bays, where a detectable kerb (with a minimum height of 60mm) separates walkways from parked e-scooters.**
- **Create strong mechanisms to encourage and enforce compliance with parking rules using tools like bluetooth**

beacons or GPS tracking for monitoring individual driver behaviour.

- **Monitor adherence to parking requirements and plan how you will move any e-scooters not parked in a designated bay as quickly as possible** and within a certain timescale (for example 1 hour of being abandoned), to avoid pavement obstructions. If for any reason your staff are not able to move the obstruction, consider how you will report this to the local authority.

Where e-scooters can be ridden

Disabled and older people and children are at greater risk from accidents involving e-scooters so think about the measures you could put in place to minimize interactions between these groups and your customers.

- **Consider how technology like bluetooth beacons or geofencing could be used to monitor and/or prevent riding on the pavement, or restrict speed or access for e-scooters to particular areas** such as shared use spaces, around hospitals and schools, or areas with high numbers of disabled or elderly people.

Driver behaviour

There are opportunities within the hiring process to educate, train and support e-scooter drivers to drive safely and follow the Highway Code which you could use to encourage better understanding and positive driver behaviour. For example:

- **Ensure your staff have undergone effective disability awareness training which includes an understanding of sight loss**. This will ensure they have the correct knowledge to properly train new drivers. Contact our organisations to find out where sight loss awareness training can be accessed.
- **Train potential drivers before their first hire,** including on the impact poor driving and parking can have on disabled people, and particularly those with sight loss.
- **Consider capping the speed that new e-scooter drivers can drive at to a lower speed than available to experienced drivers**. For example, for the first five minutes of the first hire new drivers could be capped at a lower maximum speed than usual.
- **Use information from GPS tracking and/or bluetooth beacons to encourage good behaviours**. This could be delivered via real time alerts on the e-scooter itself for example when drivers are approaching restricted areas or slower speed areas, or it could be

retrospective via the app to offer a reminder about good driving and parking practice.
- **Implement mechanisms to ensure compliance with parking rules.** For example, requiring drivers to take photos of the properly parked e-scooter.

Design

- **Maximum speed limits for e-scooters should be implemented and guaranteed**, with consideration given to limiting to appropriate speeds for different areas. We think the maximum speed limit should be 12.5mph in line with other European cities, with consideration given to lower speed limits or restricting access to certain areas like shared space or near schools.
- **Monitor sound levels of e-scooters at different speeds and ensure your e-scooters are audibly detectable** while in use by pedestrians with sight loss.
- **Ensure e-scooter bells are easily accessible** to the driver without them having to move their hands from the handlebars.
- **Ensure e-scooters are fitted with double or stable and wide kickstands** to reduce the risk of them falling over and causing obstruction or injury.
- **Ensure e-scooters have clear large text identification numbers** used to help enforcement of rules, for example to allow identification of individuals driving e-scooters irresponsibly.
- **Bright fluorescent colours and distinctive designs of rental e-scooters** would make them easier to detect for people with sight loss, and more easily distinguishable from privately-owned e-scooters for police.
- **Consider fitting daytime running lights on e-scooters.** This may aid visibility for pedestrians with low vision.

Complaints processes

Many complaints processes are inaccessible and overly complicated, meaning disabled people often do not submit complaints about incidents they have had. It has been difficult or impossible for blind and partially sighted people to read visually displayed dockless bike identification numbers to make complaints about them obstructing pavements, and it's important that this is addressed before rental e-scooter trials begin so you can mitigate against any ongoing negative effects.

- **Complaints processes must be accessible and easy to use**. Websites and apps must meet web accessibility standards (i.e. the

international WCAG 2.1 AA accessibility standard) including compatibility with screen reader and Zoom Text technology. Helplines must also be available for people who don't have access to the internet.
- **Consider how technology like GPS tacking, and bluetooth beacons could be used** to marry up any complaints about incidents with e-scooters with who was riding them at the time, and have clear plans for what action will be taken against drivers who break the rules.

Ongoing monitoring

- **Record and save information about the nature and number of complaints received about e-scooters** to feed into both ongoing monitoring of e-scooter trials, and the public consultation at the end of the 12 month trial period.
- **Monitor and report to local authorities and the Department for Transport pavement riding, riding in restricted areas, and poor parking,** and use this information – along with complaints - to adjust speed limits, change restricted areas and adapt or increase parking throughout the trial period.
- **Please share RNIB's tool to collect the experiences of blind and partially sighted people** in rental e-scooter trial areas, available at https://rnib.in/escootertrials, we will be feeding our findings into the Department for Transport.

For more information about this advice, please contact:
RNIB: campaigns@rnib.org.uk
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Document ends.

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Essex

1,477,764
total population

53,800
people living with sight loss

5,485
registered blind or partially sighted

453
Certificates of Vision Impairment in 2017/18

£690,600,000
Estimated cost of sight loss each year (includes direct and indirect costs)

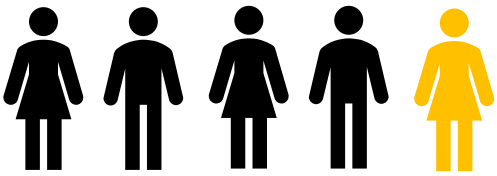
General population stats

- 21% aged 65+
- 6% from ethnic minority communities
- 9% of local authority in most deprived areas in the country
- 5% of people describe their health as “bad” or “very bad”
- 17% say that they have a long-term health condition or disability

25%

increase in number of people with sight loss by 2030

UK stats



One in every five people will start to live with sight loss in their lifetime

Every day 250 people start to lose their sight

Main causes of sight loss

- Uncorrected refracted error (39%)
- AMD (23%)
- Cataract (19%)
- Glaucoma (7%)
- Diabetic eye disease (5%)

Blind and partially sighted people

- Only one in four in work
- 40% moderately or completely cut off
- 17% offered emotional support with sight loss
- 75% have experienced a deterioration in sight over the last 12 months

The references section at the end of this report lists sources for these statistics.

RNIB

Essex: eye health and sight loss report

This report has been generated using RNIB's Sight Loss Data Tool. It provides a range of indicators relevant to blind and partially sighted people and those at risk of sight loss in Essex.

There is a comprehensive set of guidance notes to accompany this report. These notes provide further information on the data we have used throughout, including notes on terminology and the limitations of the data. Further information, including references, can be found at www.rnib.org.uk/datatool.

In terms of referencing, we suggest using the full sources at the end of the report. In addition, the RNIB Sight Loss Data Tool may be given as a reference.

Whilst every effort has been made to ensure the accuracy of the information in this report, sometimes mistakes do happen or information has changed. If you notice anything that doesn't look right, please let us know.

If you have any questions, please contact us at research@rnib.org.uk.

Contents

1. General population

This section provides an overview of the general population in Essex.

1.1 Age

There are 1,477,764 people living in Essex (1).

The older you are, the greater your risk of sight loss, which is why the population aged 75 and older offers a good indication of the demand for sight loss services. One in five people aged 75 and over are living with sight loss.

Essex has a higher proportion of people aged 75 years and over compared to the average for England (1, 2). Of the population:

- 21% are aged 17 or under.
- 59% are aged 18-64.
- 21% are aged over 65.

Table: Population by age band

Age band	Population
0-4	85,981
5-17	225,191
18-29	199,199
30-49	372,080
50-64	292,013
65-74	165,202
75-84	97,039
85+	41,059

Table: Proportion of population by age band

Age band	Essex	East of England	England
0-4	6%	6%	6%
5-17	15%	16%	16%
18-29	14%	14%	14%
30-49	25%	26%	26%
50-64	20%	19%	19%
65-74	11%	11%	11%

75-84	7%	6%	6%
85+	3%	3%	3%

Note: totals may not add to 100% due to rounding.

1.2 Ethnicity

Essex has a lower proportion of people from minority ethnic groups than the average for England. People from different ethnic communities are at greater risk of some of the leading causes of sight loss.

- 6% of the population are from minority ethnic groups, compared to 15% in England (3).

Table: Total population by ethnicity

Ethnicity	Population
White	1,313,856
Mixed ethnicity	20,885
Asian / Asian British	28,499
Black / Black British	18,709
Other ethnic groups	11,638

Table: Proportion of population by ethnicity

Ethnicity	Essex	East of England	England
White	94%	91%	91%
Mixed ethnicity	2%	2%	2%
Asian / Asian British	2%	4%	4%
Black / Black British	1%	2%	2%
Other ethnic groups	1%	1%	1%

Note: totals may not add to 100% due to rounding.

1.3 Socio-economics

People living in more deprived areas are at a greater risk of sight loss. The deprivation rank is ordered by 1st being the most deprived and higher numbers being less deprived.

- Essex is the 110 most deprived local authority in England (4).
- 9% of the local authority is within the 30% most deprived areas in the whole of England (4).

- 14% of children are living in low income families, which is better than the average for England (4).

1.4 Health

Sight loss can be linked to poor health and other health conditions. Certain risk factors can also increase the chance of sight loss. For example, smoking can double the risk of AMD and obesity increases the risk of developing diabetes which can cause sight loss.

- The health of people in Essex is better the England average (5). Life expectancy for both men and women is higher than the national average (6).
- 17% of people have a long-term health condition or disability that limits their day to day life (7).
- 5% of people describe their health as either 'bad' or 'very bad' (5).
- 14% of people smoke (8).
- 63% of adults are either overweight or obese (9).

1.5 Local labour market

Only one in four blind and partially sighted people of working age are in employment. Local data is not available. However, general labour market figures can demonstrate the realities for people with sight loss and challenges finding or retaining employment. The gap in the employment rate between those with a long term health condition and the general population indicates the inequality in employment for visually impaired persons.

- The unemployment rate in Essex is 4%, which is lower than the national average (10).
- There is an 10% gap in the employment rate between people with a long-term health condition and the overall population (11).

1.6 Districts

Within Essex there are 12 districts. The demographics within a county can vary significantly, and we've provided some details in the table below.

Table: Demographics by district

District	Total population	Proportion from BAME communities	Extent of deprivation
Basildon	185,862	7%	25%
Braintree	151,561	3%	3%
Brentwood	76,550	6%	0%
Castle Point	90,070	3%	7%
Chelmsford	177,079	6%	4%
Colchester	192,523	8%	9%
Epping Forest	131,137	9%	3%
Harlow	86,594	11%	12%
Maldon	64,425	2%	2%
Rochford	86,981	3%	2%
Tendring	145,803	3%	28%
Uttlesford	89,179	3%	0%

2. Adults living with sight loss

2.1 UK overview

More than two million people are estimated to be living with sight loss in the UK today (12). This sight loss is severe enough to have a significant impact on their daily lives. This figure includes:

- people who are registered blind or partially sighted;
- people whose vision is better than the levels that qualify for registration, but that still has a significant impact on their daily life (for example, not being able to drive);
- people who are awaiting or having treatment such as eye injections or surgery that may improve their sight;
- people whose sight loss could be improved by wearing correctly prescribed glasses or contact lenses.

The main causes of sight loss are:

- Uncorrected refracted error – 39 per cent
- AMD – 23 per cent
- Cataract – 19 per cent
- Glaucoma – 7 per cent
- Diabetic eye disease – 5 per cent

2.2 Essex

In Essex, there are an estimated 53,800 people living with sight loss (12). This includes around:

- 46,600 people living with partial sight.
- 7,230 people living with blindness.

Note: these figures include people whose vision is better than the levels that qualify for registration, but that still has a significant impact on their daily life (for example, not being able to drive).

The estimated prevalence of sight loss is higher in Essex compared to the average for England, with 3.6% of the population living with sight loss, compared to 3.2% nationally (12). This estimate is based on age and gender. Ethnic diversity, income and access to healthcare services could all potentially impact on the prevalence of sight loss in the local area.

Age profile

In terms of the age profile of the people living with sight loss in Essex, we estimate that:

- 9,520 aged 18 to 64 years
- 10,800 aged 65 to 74 years
- 15,200 aged 75 to 84 years
- 17,700 aged 85 years and over

Future projections

By 2030 there are expected to be 67,100 people in Essex living with sight loss, an increase of 25% from 2020 (12).

Table: Estimated prevalence of sight loss over time, by severity

Severity of sight loss	2020	2025	2030
Partial sight	46,600	51,300	57,800
Blindness	7,230	8,120	9,250
Total	53,800	59,500	67,100

2.3 Districts

These estimates are based on age and gender of each district. As age is a key factor in the likelihood of living with sight loss, the

older the population the higher the estimated prevalence of sight loss.

Variances in ethnic diversity, income and access to healthcare services could all potentially impact on the prevalence of sight loss in the local area. These estimates do not take these factors into account.

Table: Estimated number and proportion of people living with sight loss by district

District	Number of people living with sight loss	Proportion of the population living with sight loss
Basildon	5,790	3%
Braintree	5,400	4%
Brentwood	2,970	4%
Castle Point	3,780	4%
Chelmsford	6,060	3%
Colchester	5,910	3%
Epping Forest	4,760	4%
Harlow	2,570	3%
Maldon	2,630	4%
Rochford	3,430	4%
Tendring	7,170	5%
Uttlesford	3,250	4%

3. Children and young people

There are over 25,000 visually impaired children aged 0-16 in the UK, and around 15,000 aged 17 to 25 (13). Around half of these children will have additional disabilities and special educational needs. This figure includes:

- children who are registered blind or partially sighted;
- children who are living with sight loss but who are not registered blind or partially sighted.

In Essex, there are an estimated:

- 595 blind and partially sighted children aged 0-16.
- 285 blind and partially sighted young people aged 17-25.

Table: Estimated number of blind and partially sighted children by age group

Age group	Blind	Partially sighted	Total
0 to 16 years	155	440	595
17 to 25 years	75	210	285

Note: Based on different childhood prevalence rates, totals may not sum to total number of people living with sight loss.

4. Certification and registration

A Certificate of Vision Impairment (CVI) certifies a person as either sight impaired (partially sighted) or severely sight impaired (blind). The purpose of the CVI is to provide a formal referral route for someone with sight loss to social care services. Each CVI form is signed by a consultant ophthalmologist in an eye clinic and a copy is sent to the person's local social services department. Upon receipt of the CVI, social services offer registration and other relevant advice and services.

4.1 Certification of Vision Impairment (CVI)

In 2017/18, 453 Certificates of Vision Impairment were issued in Essex (14).

This was lower than the overall rate for England. In Essex, 31 CVIs were issued per 100,000 people; compared to 41 per 100,000 people in England (14).

There have been numerous initiatives to support better identification of need and recording of CVI so that people get access to the support they need. A higher rate of certification may indicate a positive response to this work.

Public Health Outcomes Framework

The Public Health Outcomes Framework gathers information on the rate of CVIs for three of the main causes of preventable sight loss. In Essex:

- The rate of age related macular degeneration was 109 CVIs per 100,000 people over 65 years.
- The rate of glaucoma was 10 CVIs per 100,000 people over 40 years.

- The rate of diabetic eye disease was 3 CVIs per 100,000 people over 12 years.

Trend

Since 2015/16, there is been a decrease of -7% in the number of CVIs issued. (15).

4.2 Registration

Upon receipt of a completed CVI form, the social services department offer registration as blind or partially sighted and other relevant advice and support. Registers of blind and partially sighted people are maintained by all local authorities to help them plan and deliver services.

In Essex, there are 5,485 people registered as blind or partially sighted (16). 47% are registered as blind and 53% are registered as partially sighted.

Table: Registered blind or partially sighted by age band

Age band	Registered blind	Registered partially slighted	Total
0-17	x	x	x
18-49	270	225	495
50-64	365	395	760
65-74	320	330	650
75+	1,670	1,910	3,580
Total	2,625	2,855	5,485

Additional disabilities

1,715 of the people registered as blind or partially sighted in Essex have also been recorded as having an additional disability by the local authority (16).

New registrations

In the year 2016/17, there were 325 new registrations of blind and partially sighted people in Essex (16).

This compares to 470 new CVIs. Any difference in these numbers may be due to the time taken from certification to registration, and these processes falling into different calendar years.

Rate of registration

In Essex, there are 376 registered blind or partially sighted people per 100,000 population. This is lower than the overall rate for England (17).

Trends

From 2014 to 2017, there has been a decrease of -23% in the overall number of people registered as blind or partially sighted.

Over the same period, there has been an increase of 2% in the number of new registrations (18).

Note on registration data

Registration data is submitted by local authorities to NHS Digital. Sometimes there can be data quality issues. If you have any questions regarding the accuracy of these numbers, contact the relevant local authority with responsibility for holding the register.

5. Eye health

Health services are a crucial for the diagnosis, treatment and monitoring of eye conditions, as well as good for helping people maintain good eye health.

5.1 Health administration

Essex's districts span multiple Clinical Commissioning Groups (CCGs).

The authority was formerly part of the Essex Area Team.

5.2 NHS sight tests

In England, free NHS sight tests are available to people who meet certain criteria. For example, people who are aged 60 or over, children aged 15 and under, and people in receipt of certain benefits. Public data on sight tests only records those paid for by the NHS. Privately funded sight tests are not included in this data.

There were 461,967 sight tests in the Essex Area Team in 2016/17 (19). In terms of the groups eligible for NHS sight tests:

- 337,277 sight tests were taken by people aged 60 years and over;
- 26,451 sight tests were taken by children aged 0-15;
- 3,525 sight tests were taken by students aged 16-18;
- 64,855 sight tests were taken by benefit claimants.

Due to issues with NHS Sight Test data in England, no further data will be published at a local level in this format. NSH Digital and other organisations are considering how to best publish local level data moving forward.

5.3 Outpatient appointments

When diagnosed with an eye condition, patients attend a hospital appointment with an ophthalmology specialist. The outpatient appointment data below includes all ophthalmology appointments however only a small proportion of these will involve patients diagnosed with serious sight loss.

There were 133,300 ophthalmology outpatient appointments in the Essex Area Team in 2018/19 (20).

5.4 Inpatient procedures

Some eye conditions, such as cataract, require a patient to have a surgical procedure.

There were 10,695 ophthalmology inpatient procedures (also known as finished consultant episodes) in the Essex Area Team in in 2018/19 (21).

6. Services and support

Blind and partially sighted people may require services and support to help them remain independent. This section provides a summary of some key services.

The Sightline Directory provides more information on services aimed at helping blind and partially sighted in Essex. Please visit www.sightlinedirectory.org.uk for more details.

6.1 Eye Clinic Liaison Officers

Eye Clinic Liaison Officers or ECLOs, providing a sight loss advice service, are based within eye clinics or hospitals. They play an important role in helping patients recently diagnosed with an eye condition or who are experiences changes in their eye sight to understand the impact of their diagnosis and provide patients with emotional and practical support.

ECLO support is not available in every NHS Trust or Health Board. RNIB has collected information about where support is available. This only includes qualified ECLOs, trained by RNIB, and there may be other support services available locally.

In the Essex Area Team, 4 NHS Trusts had access to an Eye Clinic Liaison Officer out of a total of 5 Trusts (based on the busiest 150 trusts in England by ophthalmic appointments) (22).

Table: Availability of ECLO support by NHS Trust

Essex Area Team	Ophthalmic outpatient appointments 2018/19	RNIB-trained ECLOs (Jan 2020)
Bmi Southend Private Hospital	6,130	No
East Suffolk and North Essex NHS Foundation Trust	100,295	Yes
Mid Essex Hospital Services NHS Trust	20,860	Yes
Southend University Hospital NHS Foundation Trust	76,500	Yes
The Princess Alexandra Hospital NHS Trust	29,810	Yes

6.2 Vision rehabilitation

Rehabilitation is the structured support put in place by a local authority (or commissioned agency) to maximise independence and quality of life for people with sight loss, as required by the Care Act 2014.

The mapping data we currently hold on the vision rehabilitation offer in local authorities is out of date. When this information is updated, we will include it in a future update to the Sight Loss Data Tool.

For further information please see the “Demonstrating the impact and value of vision rehabilitation”, which is available at www.rnib.org.uk/research.

6.3 Benefits

Disability Living Allowance (DLA) and Personal Independence Payment (PIP) are benefits paid to help people with the extra costs incurred as a result of a disability. All working age DLA claimants are having their needs re-assessed and potentially moved onto PIP. Both datasets have been combined to indicate total number of claimants. People moving from DLA to PIP often need support with applications or appeals. The proportion of people still waiting to move to PIP indicates potential need for welfare rights support.

- In Essex, there were 1,352 blind and partially sighted people claiming either Personal Independence Payment (PIP) or Disabled Living Allowance (DLA) (23).
- In May 2019, there were still 31% of working age DLA claimants waiting to be moved on to PIP (23).

6.4 Transport

Blue badges are parking badges for disabled people. Local authorities issue them to individuals and organisations concerned with the care of disabled people. Upon issue, a Blue Badge is valid for a period of three years. People who are registered as blind are automatically entitled to a blue badge if they register for one (i.e. there will be no further assessment of need).

In Essex, 447 blue badges were issued to people with sight loss in 2015/16. 1,351 blue badges were held by people registered blind in 2016, which represents 39% of people who are registered blind (24).

6.5 Education

A statement of special educational needs (SEN) is issued to children to set out any additional help required in the education setting. In Essex, there are 313 pupils with a statement of special educational needs (SEN) or education, health and care (EHC) plans with vision impairment as their primary support need (25). Of these pupils:

- 187 are in primary school

- 111 are in secondary school
- 15 are in special schools

7. Cost of sight loss

RNIB has worked with Deloitte Access Economics to produce detailed analysis of the economic cost of sight loss in the UK. Based on the proportion of people living with sight loss in each area, we can estimate these costs for each local authority.

There are different costs related to eye health and sight loss:
- Direct costs of providing health and social care services.
- The indirect costs of informal care or lower employment.
- Economic impact of the reduction in the quality and length of life.

7.1 Direct costs

In Essex, the direct cost of sight loss is estimated to be £72,600,000 each year (27).

The main elements of this costs are hospital treatments, sight tests, prescriptions and social care. This is different to the NHS programme budget costs as it includes estimated expenditure on things not provided or counted by the CCG.

7.2 Indirect costs

In Essex, the indirect cost of sight loss is estimated to be £137,000,000 each year (27). The main elements of this cost are:
- unpaid care provided by family and friends;
- lower employment rate for blind and partially sighted people;
- devices/modifications.

7.3 Wider economic impact

The estimated wider economic impact of cost of sight loss is estimated to be around £481,000,000 (27). This includes the costs associated with the reduction in the quality and length of life.

8. Sight threatening eye conditions

The figures presented in this section highlight estimates for all people living with certain eye conditions. This includes people who have experienced sight loss as a result of these eye conditions,

people who have been diagnosed but have not experienced any sight loss yet, and also those people who are undiagnosed.

8.1 Age-related macular degeneration (AMD)

This condition commonly affects people over the age of 50 and is the leading cause of blindness.

There are two main types of AMD:

- Wet AMD can develop quickly affecting central vision in a short period of time. Early identification and treatment of wet AMD is vital. Treatment can halt the further development of scarring but lost sight cannot be restored.
- Dry AMD can develop slowly and take a long time to progress There is currently no treatment for dry AMD. People with early and moderate stages of dry AMD are not eligible for registration, but it does have an impact upon daily life, for example a person may have to stop driving.

In Essex, we estimate that (28):

- 72,000 people are living with the early stages of AMD;
- 5,510 are living with late stage dry AMD;
- 11,300 are living with late stage wet AMD.
- 16,000 combined late stage AMD.

Future projection

Between 2020 and 2030 there is estimated to be an increase of 31% in the number of people living with late stage AMD in Essex (28).

8.2 Cataract

Cataract is a common eye condition that is prevalent in older people. The lens becomes less transparent and turns misty or cloudy. Cataracts over time can get worse and impact upon vision. A straightforward operation replaces the lens with an artificial one. Numerous studies have demonstrated the cost benefits of cataracts surgery in improving life quality and reducing the number of falls

In Essex, we estimate that 17,900 people are living with cataract (28).

Future projection

Between 2020 and 2030 there is estimated to be an increase of 29% in the number of people living with cataract in Essex (28).

8.3 Glaucoma

This is a group of eye conditions in which the optic nerve can be damaged due to changes in eye pressure. Damage to sight can usually be minimised by early diagnosis in conjunction with careful regular observation and treatment. Many glaucoma patients will attend regular appointments and take eye drops for the rest of their lives to prevent deterioration of vision. Some forms of glaucoma can be treated with laser surgery and surgery.

In Essex, we estimate that 31,700 people are living with ocular hypertension. A further 17,300 people are living with glaucoma (28).

Future projection

Between 2020 and 2030 there is estimated to be an increase of 21% in the number of people living with glaucoma in Essex (28).

8.4 Diabetic eye disease

People with diabetes are at risk of diabetic eye disease, which can affect the blood vessels in the eye. This can lead to permanent sight loss. Screening and early diagnosis with appropriate intervention is essential.

In Essex, we estimate that:

- 100,000 adults have diagnosed diabetes (29).
- 29,500 people are living with diabetic retinopathy (30).
- Of these, 2,720 have severe diabetic retinopathy, a later stage of the disease that is likely to result in significant and potentially certifiable sight loss (30).

Future projection

Between 2020 and 2030 there is estimated to be an increase of 8% in the number of people living with diabetic retinopathy in Essex (30).

8.5 Trends

These trends assume that the underlying prevalence of these eye conditions stays the same until 2030. The changes are due to demographics – as the population ages, more people will be living with eye conditions and sight loss.

Table: Estimated number of people living with sight threatening eye conditions in Essex, from 2020 to 2030

	2020	2025	2030
Early stage AMD	72,000	78,400	86,200
Late stage dry AMD	5,510	6,210	7,150
Late stage wet AMD	11,300	12,800	14,900
Total late state AMD	16,000	18,000	20,900
Cataract	17,900	19,900	23,000
Ocular hypertension	31,700	33,200	34,700
Glaucoma	17,300	18,800	20,900
Diabetes	100,000	106,000	112,000
Diabetic retinopathy	29,500	30,800	31,900
Severe retinopathy	2,720	2,830	2,940

8.6 Districts

These estimates are based on age and gender of each district. Ethnic diversity, income and access to healthcare services could all potentially impact on the prevalence of sight loss in the local area. These estimates do not take these factors into account.

Table: Estimated number and proportion of people living with sight loss by district

District	Total late stage AMD	Cataract	Glaucoma	Diabetic retinopathy
Basildon	1,680	1,880	1,890	3,650
Braintree	1,580	1,770	1,750	3,030
Brentwood	900	980	920	1,560
Castle Point	1,160	1,310	1,230	1,840
Chelmsford	1,790	2,010	1,960	3,510
Colchester	1,720	1,920	1,910	3,860

Epping Forest	1,400	1,540	1,500	2,630
Harlow	750	810	820	1,660
Maldon	790	900	870	1,300
Rochford	1,040	1,170	1,110	1,760
Tendring	2,240	2,510	2,260	2,990
Uttlesford	950	1,060	1,040	1,750

9. Additional health problems and disabilities

Many blind and partially sighted people are also living with other health problems or disabilities. Sight loss is linked to age, and as we get older we are more likely to be living with many health conditions at the same time.

9.1 Stroke

Around 60% of people who experience strokes will also experience some form of visual impairment immediately after their stroke. There are national guidelines recommending specialist vision assessment for stroke survivors who have a suspected visual problem.

In Essex, 8,190 people have a long-standing health condition after experiencing a stroke (31).

9.2 Dementia

Up to 850,000 people in the UK have some form of dementia. Prevalence of sight loss is higher among people with dementia, especially those living in care homes.

In Essex, we estimate that 22,400 people are living with dementia (32). Within this group, we estimate that 3,720 people have dementia and significant sight loss (33).

9.3 Learning disabilities

People with learning disabilities are 10 times more likely to experience sight loss than the general population

In Essex, we estimate that 1,860 adults have a learning disability and partial sight. A further 530 adults have a learning disability and blindness (34).

9.4 Hearing impairment

In Essex, we estimate that 171,000 people have a moderate or severe hearing impairment, and 3,850 people have a profound hearing impairment (35).

9.5 Dual sensory loss

An estimated 10,300 people are living with some degree of dual sensory loss in Essex (36). Of these people, it is estimated that 4,030 are living with severe dual sensory loss (36).

The register of blind and partially sighted people also records hearing impairment. In Essex, 665 people registered blind and partially sighted are also deaf or hard of hearing (37).

9.6 Falls

Falls are more common, and are more likely to have serious outcomes, amongst older people. In some cases, falls can lead to serious medical problems and a range of adverse outcomes for health and wellbeing.

In Essex, it is estimated that:

- 6,780 people with sight loss aged over 65 experience a fall per year (38).
- Of these falls, 3,200 are directly attributable to sight loss (38).
- 540 people aged over 65 with sight loss experience a severe fall per year (here, a severe fall is defined as a fall that results in hospital admission through A&E) (38).
- Of these severe falls, 250 are directly attributable to sight loss (38).

Additional resources

RNIB Research and Knowledge Hub

Information on the latest research news and reports published by RNIB, as well as guides to impact measurement, blogs and other resources.

These resources can be accessed on the RNIB website: www.rnib.org.uk/research.

State of the Nation: Eye Health 2017

A summary report that provides the latest evidence on eye health across the UK. It supports strategic thinking to transform eye health and take steps to stop people losing their sight unnecessarily.

My Voice

Research into the views and experiences of over 1,200 registered blind and partially sighted people in the UK. My Voice covers a range of different topics, such as employment, transport and access to information and services. It is a key source in helping us understand the circumstances of blind and partially sighted people.

Sight Loss Data Tool

Sight Loss Data Tool is the UK's biggest collection of eye health data. The Excel based tool shows users all of the local figures relating to sight loss and eye health to use as evidence in campaigns, fundraising and service development.

Evidence-based reviews

RNIB's Evidence-based reviews look in detail at the experiences of blind and partially sighted people in different age groups. They include a profile of the group, the policies that govern and impact upon their lives, and a commentary on what the evidence tells us. We publish reviews focusing on children and young people, people of working age and older people.

For further information or queries, please contact us at research@rnib.org.uk.

References

Please see the “References and Further Information” document for full details on the evidence used in this report. A summary of the evidence is provided below.

1. Office for National Statistics (2019), 2019 mid-year detailed population estimates.

2. Official subnational population projections and benchmarking tool.

3. 2011 Census ethnicity data and benchmarking tool.

4. DCLG (2015) Local Authority Summaries. Department for Communities and Local Government. And PHE (2019), Public Health Outcomes Framework, ‘Children in low income families (under 16s)’, 2016, Public Health England.

5. 2011 Census data for ‘general health’.

6. Office for National Statistics (2015) Life Expectancy at Birth and at Age 65, by Local Areas in England and Wales.

7. 2011 Census data for ‘Long-term health problem or disability’.

8. Public Health England (2019), Public Health Outcomes Framework, ‘Smoking Prevalence in adults - current smokers’, 2018.

9. Public Health England (2019), Public Health Outcomes Framework, ‘Percentage of adults (aged 18+) classified as overweight or obese’, 2017/18.

10. NOMIS (2018), Model-based estimates of unemployment. March 2018. NOMIS.

11. Public Health England (2019) Public Health Outcomes Framework, 1.08i - Gap in the employment rate between those with a long-term health condition and the overall employment rate 2018/19.

12. Pezzullo et al (2017). The economic impact of sight loss and blindness in the UK adult population. RNIB and Deloitte Access Economics. Prevalences applied to subnational population projections.

13. Keil (2013), Key statistics on number of blind and partially sighted children and young people in England. RNIB ; Morris and Smith (2008), Educational provision for blind and partially sighted children and young people in Britain: 2007. Prevalences applied to subnational population projections.

14. Public Health England (2019), Public Health Outcomes Framework Data Tool; indicators on avoidable sight loss.

15. Public Health England (2019), Public Health Outcomes Framework Data Tool; indicators on avoidable sight loss.

16. NHS Digital (2017) Registered Blind and Partially Sighted People - England, Year ending 31 March 2017.

17. NHS Digital (2017) Registered Blind and Partially Sighted People - England, Year ending 31 March 2017 ; and benchmarking tool.

18. NHS Digital (2017) Registered Blind and Partially Sighted People - England, Year ending 31 March 2017.
Health and Social Care Information Centre (2014), Registered Blind and Partially Sighted People - England, Year ending 31 March 2014.

19. NHS Digital (2017), General Ophthalmic Services, Activity Statistics, England, 2016-17.

20. NHS Digital (2019), Outpatients - Provider level analysis 2018-19, Table 8: Hospital provider attendances broken down by main specialty.

21. NHS Digital (2019), Hospital Admitted Patient Care Activity, 2018-19, Provider Level Analysis.

22. RNIB (2020), Mapping of RNIB-qualified sight loss advisors in the UK. Unpublished.

23. Department for Work and Pensions (2018) DLA cases in payment: local authorities by main disabling condition (May 2019) ; Department for Work and Pensions. And PIP claims in payment: local authorities by disability (May 2019).

24. Department for Transport Statistics (2016), Blue badge scheme statistics: 2016.

25. Department for Education (2019) Special educational needs in England: January 2019.

26. NHS England (2015), 2013-14 CCG Programme Budgeting Benchmarking Tool, Indicator 08. Problems of vision.

27. Pezzullo et al (2017). The economic impact of sight loss and blindness in the UK adult population. RNIB and Deloitte Access Economics. Cost apportioned out to local authorities using population data.

28. NEHEM (2013) National Eye Health Epidemiological Model. Data and models by Public Health Action Support Team, published by Local Optical Committee Support Unit. Prevalences applied to subnational population projections.

29. Diabetes UK (2013) Diabetes in the UK 2013. Diabetes UK. Prevalences applied to subnational population projections.

30. R. Mathur et al (2015), Diabetic eye disease: A UK Incidence and Prevalence Study, London School of Hygiene and Tropical Medicine. RNIB. Prevalences applied to subnational population projections.

31. POPPI (2013), Projecting Older People Population Information System. Institute of Public Care for the Department of Health ; General Household Survey 2007, table 7.14 Chronic sickness: rate per 1000 reporting selected longstanding conditions, by sex and age, Office for National Statistics. Prevalences applied to subnational population projections.

32. POPPI (2013), Projecting Older People Population Information System. Institute of Public Care for the Department of Health. Prevalences applied to subnational population projections.

33. Thomas Pocklington Trust (2007), Dementia and serious sight loss, Occasional paper February 2007, number 11. Prevalences applied to subnational population projections.

34. Emerson and Hatton (2004), Estimating the Current Need/Demand for Supports for People with Learning Disabilities in England. Lancaster: Institute for Health Research, Lancaster University, 2004 ; Emerson and Robertson (2011), The Estimated Prevalence of Visual Impairment among People with Learning Disabilities in the UK. RNIB. Prevalences applied to subnational population projections.

35. POPPI (2013), Projecting Older People Population Information System. Institute of Public Care for the Department of Health ; Davis A (Ed.), Hearing in Adults (1995), Whurr Publishers Limited ; Davis A et al, Health Technology Assessments 11(42):1-294 (October 2007). Health Technology Assessments. Prevalences applied to subnational population projections.

36. Robertson J and Emerson E (2010), Estimating the Number of People with Co?Occurring Vision and Hearing Impairments in the UK. Centre for Disability Research. Prevalences applied to subnational population projections.

37. Health and Social Care Information Centre (2014), Registered Blind and Partially Sighted People - England, Year ending 31 March 2014, additional disability.

38. Boyce T, Stone MK, Johnson S and Simkiss P (2013), Projecting numbers of falls related to visual impairment. British Journal of Healthcare Management Vol 19 No 6. ; Scuffham, P. et al, (2003), Incidence and costs of unintentional falls in older people in the United Kingdom, Journal of Epidemiology and Community Health, Vol. 57, No.9, Sept. 2003, pp.740-744. Prevalences applied to subnational population projections.