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## Welcome

As we emerge from the restraints of the pandemic, an increase in patient's eye health needs is adding to the huge backlog in eye care.

Patients, like Michael Bayley, find themselves at the mercy of a broken system. He waited an additional 10 months for glaucoma tests, which he previously had every three months. Sadly, Michael's vision deteriorated during this time and he is now registered blind as a result.

Senior ophthalmologists say waiting lists for key treatments are the longest they have ever been and speak of 'a tidal wave' of avoidable blindness.

For some, sight loss comes suddenly and for others, it is part of a long-term health condition. Either way, it can have a profound impact on daily life. Sight loss is linked with an increased risk of loneliness, isolation and other health conditions, including clinical depression, diabetes, dementia and stroke.





Marsha De Cordova, MP for Battersea and Lord Low of Dalston, CBE. Co-chairs of the All Party Parliamentary Group on Eye Health and Visual Impairment

Sight loss also comes with a huge economic cost. In 2019, the annual cost of sight loss and blindness was estimated at £36 billion – due to the pandemic, this is expected to rise by £2.5 billion between 2020 and 2024.

Glaucoma is a particular concern. Regular eye tests can detect glaucoma early on, at a time when treatment can be particularly effective. Yet many people are unaware that glaucoma can present with no symptoms and so only half of those affected are even aware that they have the condition. That is why it is vital that we keep reminding everyone why regular eye tests are so important.

For people diagnosed with glaucoma, regular monitoring is crucial. Michael speaks of the devastating consequences of delayed appointments. Patients who were assessed as low risk a year ago need to be seen now. We must all work together to design integrated care systems that make use of the entire primary and secondary care workforce to ensure that people receive timely treatment.

Expert clinicians are concerned people are needlessly going blind. We know 50% of all sight loss is avoidable. Given the effective treatments available no one should have to live with vision loss that could be avoided. And where sight loss is unavoidable, we must ensure it is not inevitably catastrophic.

## Summary

We rely on our eyes every day, yet we don't give them much thought until our vision is affected, and millions of us don't get our eyes tested regularly. We all need to do more to raise awareness of why this is so vital. Glaucoma is an insidious disease. Vision can be irreparably damaged before patients experience symptoms. Routine eye tests are the best way to spot problems early. Treatment is effective and regular monitoring will identify patients at risk of sight loss. But routine eye testing in the community was restricted during the pandemic and NHS eye care services are struggling to cope with the backlog and growing demand. There is evidence of severe vision loss due to failure to see patients in a timely manner. Specsavers commissioned Deloitte Access Economics

to identify alternative models of care practised throughout the UK to inform improvements in glaucoma treatment and detection. This report highlights examples of integrated care pathways that are delivering high quality glaucoma care but provision, particularly in England, remains fragmented. We are sitting on a glaucoma ticking time bomb yet there appears to be no discussion or plans to address concerns. We must draw on the professional expertise of the entire eye care sector to improve glaucoma care to help save sight.

## **Acknowledgements**

We would like to thank Jean Bamber, Michael Bayley, Glenn Denny and Sergies Stepanovs for sharing their stories. Their experiences illustrate why it is so important that the pace of change in the way health care is delivered is accelerated.

Thank you to all at Glaucoma UK and Chair, Professor Anthony King, for sharing your expertise and the work you do to raise awareness of the need for early detection. Thanks also to Visionary, the

umbrella body for local sight charities, especially Visionary members Bury Society for Blind and Partially Sighted People, East Cheshire Eye Society, Galloways, Hartlepool Vision Support, Merton Vision, MoorVision, My Vision Oxfordshire. NESS. North Somerset Vision Support, Seescape, Sight Action Inverness, Sight Advice South Lakes, Sightline (North West) Sight Scotland, Vision PK, Vision and Hearing Support, Vista. Warwickshire Vision

Support and Wilberforce Trust, who worked with us to track trends in sight impairment registrations.

We are grateful to our eye health colleagues who have shared comments and contributed their expertise to this report. Let's go the extra mile to collaborate to save sight.



Report author **Dr Philippa Simkiss** 



Glaucoma is the name of a group of eye diseases that damage the optic nerve. The optic nerve transfers visual information from the eve to the brain and if it is damaged, it can result in irreversible sight loss and even blindness. Up to half of people with glaucoma do not know that they have it because the disease can often be symptomless. meaning that much damage can be done and significant vision lost before a person realises there is a problem. For most people, the signs of glaucoma are first spotted during a routine eye test.

During the last few years, hospital eye departments have seen a noticeable increase in the number of patients needing care. The COVID-19 pandemic had a huge impact on this existing backlog and became the catalyst for the eye care sector having to fundamentally re-evaluate the way it functions.

The sector accelerated the delivery of virtual clinics and prioritised high-risk patients using risk stratification tools. It also reviewed care pathways, shifting more

care to community-led models where appropriate and enabling those at lower risk of sight loss to be monitored by qualified community-based health care professionals, particularly high street optometrists. These actions undoubtedly helped those patients in the greatest need of care, but many more are still waiting to be seen. Additionally, many others remain undiagnosed as routine eye care services were withdrawn, reduced or restricted during the pandemic, and fewer people were referred to ophthalmology services in secondary care, meaning the opportunity for glaucoma case detection was limited.

Ophthalmology services throughout England and the devolved nations are still under immense pressure from the increase in demand. Many patients are still experiencing long waiting times and delayed follow-

ups. and I am concerned that these delays could have an impact on their sight.

Taking time to reflect on the last few years, as this report does, we gain vital information and insight that will help shape glaucoma care for years to come. Although we've experienced a period of great innovation in the face of adversity, there's still more we can do to improve pathways to care for glaucoma patients in the UK. Not forgetting the importance of raising awareness of the disease so that the huge number of undiagnosed people living with glaucoma can be identified, and they can then access the care they need.



**Professor Anthony** King, Consultant Ophthalmologist and Chair of Glaucoma UK



## Our eyes are amazing

Dr Michael Mosley, broadcaster, author and journalist, explains why looking after our eyes is so important

Our eyes do a wonderful job of capturing light and sending information to our brain. They are so sensitive that the naked eye can, apparently, see the Andromeda Galaxy, 2.5 million light years away, thanks to the light coming from its burning stars, and most of us can distinguish between a million different colours[1,2].

We rely on our eyes every day, yet we don't give them much thought until our vision

is affected[3] and millions of us don't get our eyes tested regularly[4]. We all know you need to get your eyes tested to ensure that you are wearing the right glasses or contact lenses, but what a lot of people don't realise is that there are a wide range of other eye conditions and vision problems that can be picked up by eye tests. And that, perhaps surprisingly, our eyes can also give an early indication of problems

with our general health, like diabetes, high blood pressure, high cholesterol, rheumatoid arthritis, some kinds of cancer and dementia [5,6]. Symptoms of these conditions can be easy to miss and an eye test can be the first step to early diagnosis. Recent research shows that an eye examination has the potential to predict our risk of having a heart attack[7] and there are examples of optometrists being the first to spot a case of multiple sclerosis.

## Who would you speak to if you woke up with a eye problem?

You first instinct might be to see your GP, but it is worth bearing in mind that an optometrist, at your local opticians, has a lot of expertise when it comes to eye health.

A qualified optometrist trains for at least four years to register with the General Optical Council (GOC). Further clinical training enables them to specialise in management of specific eye conditions. Community optometrists at your local practice use hospital-grade equipment and play a vital role in preventing sight loss. Some have advanced OCT (Optical Coherence Tomography) scanners, which can spot sight-threatening conditions like glaucoma up to four years earlier than traditional methods[8], well before you notice something is wrong.

#### Did you know that vision is vital for our physical and mental health?

Another very good reason for looking after your eves is because, as well as physical health, vision plays a critical role in our mental wellbeing[9]. Loss of vision has been linked to loneliness. social isolation, anxiety, fear, depression and thoughts of suicide[10].

And finally, eye problems are very common: one in five of us will live with sight loss during our lifetime[11]. Already there are more than two million people in the UK who have a level of vision loss that impacts significantly on their daily life [12], and this includes almost 300.000 who are registered blind. As our population ages these numbers are expected to increase.



#### Dr Michael Mosley's tips to keep our eyes and our mind healthy

Staying active and eating a healthy diet will boost your mood and lower your risk of Type 2 diabetes and diabetic retinopathy – one of the leading causes of vision loss.

#### If you smoke, quit! Smoking increases your risk of developing macular degeneration, another eye disease that can cause severe and permanent

vision loss.

**Getting regular eye tests** because an optometrist can spot problems early and give you the best chance of successful management and treatment.



Glenn's story

## 'I knew something was amiss'

Early years practitioner Glenn Denny, 46, had been experiencing minor headaches, so he booked a routine eye test thinking he'd just need some new glasses. During the eye examination, which included an OCT (Optical Coherence Tomography) scan to show

the structure at the back of the eye, Optometrist Nicola Byford saw that Glenn's optic nerve looked swollen. When the optometrist said I was missing half of my peripheral vision in my left eye, I knew something was amiss,' says Glenn. 'Nicola made an urgent hospital referral for me.' Further tests showed that Glenn had a pituitary tumour. When he had surgery to remove 80% of the tumour. Glenn's sight returned. He has now been given the all-clear to return to work and is looking forward to a positive future. Glenn says, 'The experience has really highlighted to me how important it is to have regular check-ups.'

# A glaucoma ticking time bomb



Ophthalmology is the busiest outpatient speciality in the NHS. Attendances made up almost 9% of all hospital outpatient appointments in 2019/20[13].

633,000



**Huge backlog** - 633,000 people were waiting for NHS ophthalmology appointments in May 2022.



#### Delayed appointments -

only 64% of ophthalmology patients have been seen within an 18-week timeframe, in the first five months of 2022 – the maximum waiting time set out in the NHS constitution[14].

### +12 months

24,200 people have been waiting longer than one year.



eye care[15].



Glaucoma is a group of eye diseases which damage the optic nerve, usually due to changes in pressure inside the eye (ocular hypertension). Typically, there are no symptoms to begin with as glaucoma develops slowly, affecting the periphery of your vision first. So people may not realise they have glaucoma, and it's often only picked up during a routine eye test.

Glaucoma is the leading cause of irreversible blindness worldwide, yet many people don't know they have it[16]. As many as half of all cases are undiagnosed[17]. Delayed follow-up is resulting in deterioration of vision and patients losing sight[18].

### £36 billion

the estimated annual cost of sight loss and blindness in 2019[18].



the estimated additional cost of sight loss and blindness due to the pandemic between 2021 and 2024[18].

### +2 million



More than 2 million people at risk of vision loss due to glaucoma - there are an estimated 1,390,000 people living with ocular hypertension and a further 708,000 living with glaucoma[19].



The Royal College of Ophthalmologists anticipates a **44% increase in demand for glaucoma services** by 2035[20].

If glaucoma is in the family, close relatives can be up to ten times more likely to develop it[21].

There is no general population screening programme for glaucoma[22]. Case finding through regular eye tests for early detection followed by careful observation and regular treatment can usually minimise loss of vision.

## 4.3 million

Although services remained open for urgent care during the COVID-19 pandemic the number of **eye tests in 2020 dropped by 4.3 million**, a 23% decline compared to tests administered in 2019[23]. The drop in eye tests resulted in large reductions in referrals from primary care to hospitals.



66% reduction in referrals for glaucoma into hospitals in England from March to July 2020 compared to the same period in 2019[24].

Outpatient appointments were reduced and waiting list surgeries were cancelled. Glaucoma requires regular monitoring but the effect of lockdowns and 'stay at home' messages triggered behaviour change, causing some patients to miss reviews and present late with more advanced disease.





28% of people living with glaucoma have been worried or anxious about not being able to manage their condition effectively during COVID-19[25]



# 'I thought my life was over when I lost my sight'

When Michael Bayley, 65, broke his glasses, he went to his community optician to get them fixed. Michael was shocked to learn that there was a problem with the pressures in his eyes and he was referred to hospital.

Since then. Michael has had constant treatment and multiple surgeries. In early 2020, his ophthalmologist told Michael his glaucoma had reached an advanced stage. At this point Michael had to stop driving and he also stopped working. He was attending hospital every three months for a field test and a dilation test. When the hospital implemented changes to respond to the pandemic, Michael's pressures were stable, so his regular appointments were reduced. At his next

appointment, ten months later than originally planned, Michael's vision had deteriorated significantly and he was registered as severely sight-impaired.

Michael found these changes confusing and stressful. Speaking to a friendly voice at East Cheshire Eye Society and getting involved in activities has given him a new lease of life. 'I thought my life was over when I lost my sight. Now I meet other people and tell them it's not. I've gone through it and if I can help one person deal with it, I'm happy.

'I tell everyone that there are some eye conditions with no symptoms and glaucoma can run in the family. My children and grandchildren all now get regular eye tests.'





27% refrained from picking up their eye drop prescription due to worries about catching COVID-19.

Health care professionals have observed glaucoma patients who have lost significant sight as they emerge from lockdowns and present to the health system, sometimes for the first time[26].

## Tackling a nationwide emergency

In the past 12 months Specsavers has



**Tested the pressure** of 12 million eyes and carried out more than three million visual field assessments



Taken almost 13 million retinal photographs

**Captured more than** 7.4 million OCT scans



Assessed more than 800,000 people who are close relatives of someone with glaucoma



Referred almost **100,000** people for alaucoma-related pathology helping to safeguard their sight

'The numbers above show just how wellequipped optometry is to play a huge part in the solution to the eye care problems we face now and in the future. and they don't include the many hundreds of thousands of referrals made overall, from routine cataract referrals to urgent retinal and macula

issues. Optometrists are a fundamental part of the eye health network and can do so much more to help. The clinical skills and diagnostic technology are already in place to not only detect but also manage eye disease in the community. Coupled with communication networks, this can be leveraged at scale to provide more capacity for glaucoma

care in the community with ophthalmologist connections on a virtual basis. Much of the investment has already been made and there are great examples of scalable infrastructure that would make this a reality.'



Paul Morris. **Specsavers Director** of Professional Advancement

Visionary members (local sight loss charities) report a significant increase in requests for their services as more people are registering as blind or partially sighted than before the pandemic.

The total new registrations received by 13 charities managing the Sight Impairment Register for 19 Council areas in England and Scotland increased by 59% in the year ending March 2022 compared to the previous year and by 18% compared to the year ending March 2020, pre-pandemic (see p24).

'We became increasingly aware of the significant increase in mental health issues among people with a range of eye conditions',



Alan Chappell, Charity Manager of East Cheshire **Eye Society** 

'The people we support are more reluctant to travel since the pandemic. This is partly because of COVID and partly because of a decrease in good public transport. We are increasing our presence in the wider community to provide services closer to home.'



Mark Upton, CEO of MyVision Oxfordshire

'We received an increase in requests for support in all areas, particularly with access



## Jean's story 'I saw fishshaped blobs'

During the coronavirus pandemic Jean Bamber's sight deteriorated considerably. She has dry macular degeneration and described seeing 'fish-shaped blobs' in front of her vision. As she was finding it difficult to read and watch TV, her community optometrist referred Mrs Bamber to Sight Advice South Lakes for support.

A Sight Loss Co-ordinator visited Mrs Bamber and assisted her to alter the settings on her iPad to activate the magnifier. Mrs Bamber learned about Talking Books, how to access audio description on her television and how

artificial intelligence can assist people with reduced vision. She was eager to try the Seeing AI App to help her read text and is now experimenting with other reading devices. At a Low Vision Clinic Mrs Bamber was prescribed an appropriate LED magnifier and enjoyed a demonstration of a wide range of assistive technology.

Mrs Bamber knows her vision will deteriorate further over time. 'Thanks to the referral from my local optician, I have accessed a huge range of services that will help me keep doing the things I love,' she says.

to education and healthcare.'



Laura Hughes, **CEO** of Moorvision

'Visionary supports more than one hundred local member organisations throughout the UK, working with more than a quarter of a million people with a wide variety of sight conditions and vision loss. Our incredible community members spend more than £96

million each year, delivering lifechanging services and raising awareness of eye health. Nobody should lose their sight from a treatable condition at any time and definitely not while they are waiting to be seen for a problem which has already been identified. This outcome is catastrophic. We must work together for a

> brighter future.' Fiona Sandford, CEO of Visionary

## Health care on the high street

#### Wales

Ophthalmology in Wales has the longest wait times of all hospital specialities. Consultant Ophthalmologist Gwyn Williams has highlighted the need to reform the system. recruit more consultant ophthalmologists and expand the role of optometrists. He has spoken publicly of a 'tidal wave of blindness' sweeping Wales if eyecare services are not reformed to eliminate the harmful delays in glaucoma, macular degeneration and diabetic eye disease pathways[27].

Reform to make the delivery of glaucoma care in the community more consistent is already underway. The Welsh Government is funding additional training for optometrists who wish to specialise in glaucoma care or independent prescribing so they can receive referrals of patients who would normally be seen in hospital-based eye casualty, such as those with anterior uveitis or keratitis, directly from local practices.

'Optometrists have a growing

role in the community. Within ODTCs they provide high quality glaucoma care to patients. When an optometrist suspects a patient has glaucoma, funding supports additional tests so any referral to hospital is built on robust evidence and the ophthalmologist is given detailed information. This builds trust with ophthalmology consultants and patient satisfaction is high (97%). The reputation of optometrists as expert



clinicians has grown.' **Sali Davis,** CEO of
Optometry Wales

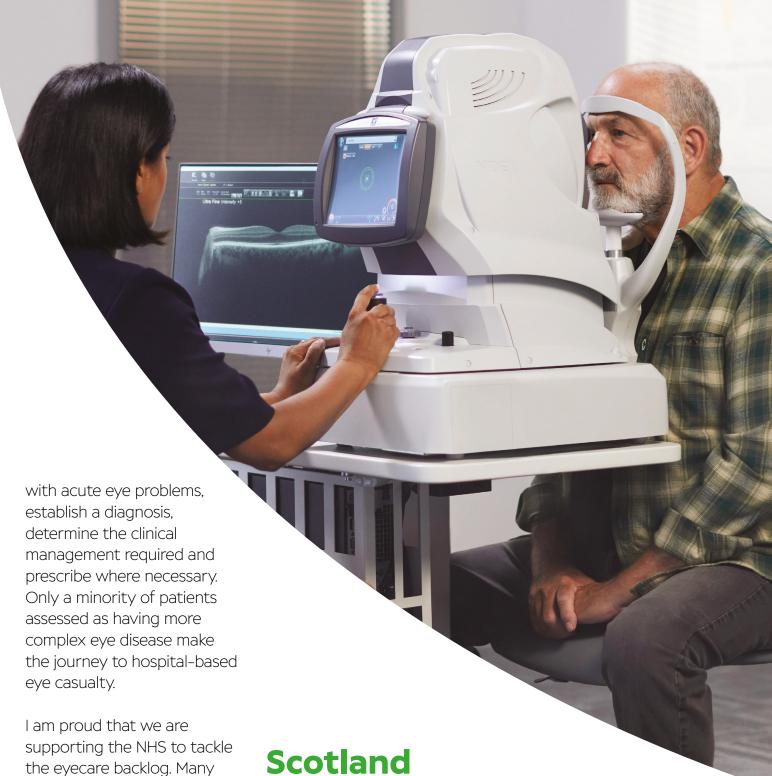
#### Patients benefiting from community eye care

Patients are benefiting from optometry-led ODTCs throughout Wales. In Cwm Taf Morgannwg University Health Board four community optometry practices support two hospitals in the region to deliver glaucoma care closer to home. Practices use

hospital grade technology, as specified by the Health Board, to carry out OCT scans, visual field testing and intra ocular pressure measures for patients with ocular hypertension and suspect or stable glaucoma. Scans and measurements are sent to the hospital and reviewed remotely by a consultant ophthalmologist who decides if the patient needs to be seen in a hospital-based eye clinic or can continue to be reviewed within their community. Similar services for patients with diabetic retinopathy or wet age-related macular degeneration have also been developed.

Optometrist Brian Borland, who holds an Independent Prescribing and Professional Certificate in glaucoma qualifications, leads the service in Merthyr Tydfil. He believes these services, working in close partnership with ophthalmology consultants, are the future of eye care.

'In community practice we clinically assess patients



supporting the NHS to tackle the eyecare backlog. Many glaucoma patients we see have not been assessed for two years. The majority have been taking their eye drops and are stable but sadly some have experienced irreversible sight loss since their last appointment and are facing life-changing consequences, such as no longer being able to drive.'



Brian Borland, Community Optometrist The total throughput of patients in the hospital eye service in Scotland is 450,000 per year[28]. About 25% of these are glaucoma patients. Primary eye care services are well developed and supported by a General Ophthalmic Services (GOS) funding model that enables optometrists to see patients for repeat tests so that they can have confidence in any referrals to ophthalmology.

Before the pandemic, ophthalmology review groups were already considering how to make more use of community optometrists in patient pathways.

To deal with the backlog, exacerbated by COVID-19, the Scottish government allocated funding for shared care schemes to every Health >



Board in Scotland. It also funds training (NHS Education for Scotland Glaucoma Award Training - NESGAT) for independent prescribing optometrists so that they can manage glaucoma patients discharged from hospital, in the community.

These examples of shared care services show the positive impact of optometry on patient pathways and the value of primary/secondary care partnerships.

When routine care and screening was restricted in the early stages of the coronavirus pandemic, a review scheme was established in Tayside. Patients attend their optometrist for applanation Inter-ocular Pressure (IOP), acuity measurement, threshold field testing, disc imaging and medication review. Glaucoma data is sent electronically to the glaucoma team at Ninewells Hospital for review. More than 3,000 patients have been seen and decisions made for

treatment escalation, stable

monitoring or discharge.

'The scheme has been a highly successful necessity. It has allowed patients to be monitored and evaluated in a timeframe which otherwise would have been impossible. This has given us reassurance that many of our patients remain stable, yet allowed us to identify those who are not, so we can take appropriate action. We are aware of the timeimpact this has had on daily services for our community optometry colleagues and are very grateful for their ongoing support during this challenging time.'



**Stewart Gillan,**Consultant
Ophthalmologist

'Patients say attending their optometrist is far less stressful and more convenient than visiting the hospital. The scheme allows optometrists to build a clinical relationship and trust with patients.'



**Kenny Johnston,**Community
Optometrist

## Investing time in training in Fife

A team led by Professor Roshini Sanders, Consultant Ophthalmologist at Queen Margaret Hospital in Fife, developed a bespoke database for all glaucoma patients waiting to be seen. The hospital provided indemnity for highly qualified optometrists in seven optometry practices to enable them to work across the primary/secondary care interface. Using hospital grade equipment these optometrists risk-assessed patients and shared data with the glaucoma team at Queen Margaret's. Decisions on care were taken at virtual patient review meetings led by Professor Sanders. Optometrists gained experience through discussion of multiple clinical episodes at these multidisciplinary sessions. Since January 2021, more than 3,000 patients have been assessed.

The waiting time for new glaucoma patients is eight weeks and all reviews are seen in time. This is because approximately one third of glaucoma patients are managed in the community by highly specialised optometrists with hospital support, thus

freeing up hospital capacity for patients to be seen in time in the secondary services.'



Professor Roshini
Sanders, Consultant
Ophthalmologist

Despite risk stratification, new patients in some areas are waiting 18 months for an appointment in some areas.

'Developing 200 NESGAT qualified optometrists would be transformative in Scotland. It would allow the discharge of up to 34,000 patients from hospitals into the community.'



Frank Munro,
Optometry
Scotland

## Northern Ireland

Northern Ireland has integrated provision for the diagnosis, treatment and monitoring of glaucoma patients underpinned by effective collaboration between optometrists and ophthalmologists. The Belfast Trust has a dedicated glaucoma clinic which acts as a 'one stop shop', offering all diagnostic and monitoring tests during a single appointment.

At the height of the coronavirus pandemic the glaucoma clinic developed a highly innovative approach to care with the creation of a drive-through clinic, which enabled the continued care of high-risk patients. Throughout the pandemic, primary care optometrists managing acute optometric presentations had increased communication with ophthalmology. This helped to further strengthen relationships between the professions

## Community OHT service

Primary care optometrists with additional glaucoma qualifications triage glaucoma referrals. This helps to reduce the burden of inappropriate referrals in secondary care ophthalmology and ensures those who need consultantled care can access it in a timely fashion.

From 2019 approximately 1300 OHT patients, in line with NICE guidelines, have been discharged into the > care of optometrists in the community. These optometrists all have a Professional Certificate in glaucoma and participate in the ECHO (Extension of Community Healthcare Outcomes) network. This network is a pioneering tele-mentoring programme through which optometrists and ophthalmologists meet virtually for case presentations, peer review and continuing professional development.

Throughout Northern Ireland, 55 practices provide this OHT service, allowing patients to receive timely, convenient, appropriate care within their local community. Patients are discharged to community optometry with an individual care plan, which optometrists work within. Optometrists are supported by an electronic referral for advice system, which gives direct access to a consultant ophthalmologist who can review findings and issue appropriate advice for patient management.

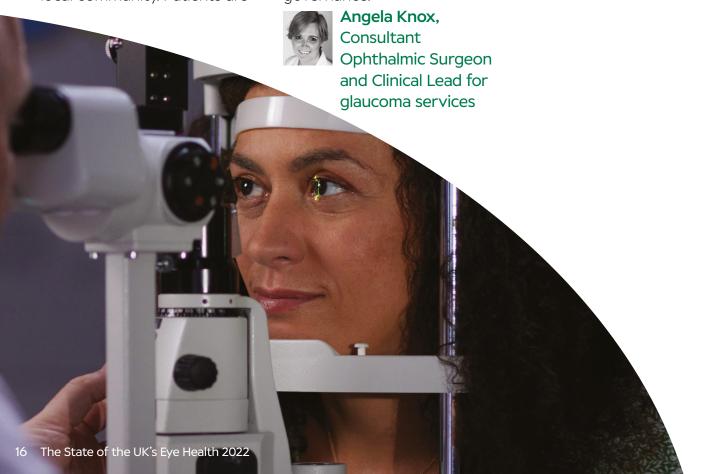
Our OHT Scheme recognises the ability of suitably qualified optometrists to competently manage the care of OHT patients. This good practice is underpinned by regular multidisciplinary peer review meetings as we build continuing professional development into our governance.'

The OHT scheme is an example of true collaborative working, which is constantly evolving to deliver excellent patient care closer to their homes. I am proud of the role community optometry is playing to meet local need.

A review of the service is underway. We hope that, in line with NICE guideline NG81, an optometrist will be able to liaise with ophthalmology and the patient's GP to take forward any action in respect of treatment for OHT and initial prescribing of medication if required.'



Jill Campbell,
Chair of Optometry
Northern Ireland



#### **England**

Prior to the pandemic, referral filtering through repeat measures was seen as good practise, avoiding 50% of referrals and reducing false positives[29]. Although glaucoma referral filtering and monitoring services are commissioned more consistently throughout England, eyecare leaders are calling for greater integration of care. COVID-19 has been the catalyst to move services out of hospital and into the community, making use of the existing clinical skills of primary eye care.

#### Glaucoma monitoring 'backlog service'

Community optometrists are working in partnership with two hospital trusts to clinically review and triage hospital glaucoma patients' overdue followup appointments. Patients suitable for community review are identified by the hospital team, supported by primary care optometrists working within hospital to provide additional capacity. These patients are transferred to a shared care pathway and offered diagnostic assessment in their local optical practice with a tentative outcome indicated, advising which

'During the last two years, community optometrists and hospital eye care services have made greater use of virtual consultations. Shared care schemes are commonplace in some areas. Yet a skills and service lottery persists across the four nations as NICE guidelines are not followed consistently, and despite efforts to risk assess patients, many are still waiting far too long for their first or follow-up

appointments.' Mohit Gupta,

Consultant Ophthalmologist

patients would benefit most from the next available appointment, which are stable and okay to continue to wait for a hospital appointment, as well as which patients could be discharged to a community monitoring service. The optometrists' tentative outcomes were reviewed virtually by glaucoma consultants - early reports indicate 100% clinical agreement for almost 2.000 patients who have been through the pathway.

Ensuring the right patients are referred into secondary care ophthalmology services optimises use of resources. Glaucoma is a complex disease and difficult to assess. In regions where referral filtering and enhanced case finding are commissioned, referrals are based on repeatable test results using hospital grade equipment. In the absence

of a commissioned service, referrals are made on the basis of a single test result. Consultants, unaware of the commissioning arrangements, may question clinical decision-making skills if referral information appears to be lacking.

'Although LOCSU promotes a care pathway that facilitates direct referral from primary to secondary care, without the need to go via a GP, this is not consistently adopted throughout England. We need to find a route to scale pockets of excellence, so all patients can benefit from these new care models. The clinical skills and diagnostic technology are already in place to detect and manage eye disease in the community. Primary care community optometry needs a consistent structure in place to share responsibility for the outcome of the

patient with ophthalmology services in secondary care. I have an aspiration that an optometrist in a practice team is incentivised to do all they can to meet the needs of individual patients so only those people who need specialist care make the trip

to hospital.'

Zoe Richmond, Clinical Director. **LOCSU** 

Zoe is also Vice-Chair of the Clinical Council for Eye Health Commissioning (CCEHC) and currently works for NHS England providing clinical leadership within the national eye care recovery and transformation programme (NECRTP).

The NECRTP published standardised pathways for glaucoma and made

recommendations for commissioning, 'There should be commissioned referral filtering in primary care optometry with joint primary care optometry and hospital ophthalmology clinical leadership. This should be supported by virtual opinions and advice and guidance on data and images, all delivered within a clear clinical governance framework'[30,31].



CJ's story

## 'I hadn't had an eye test for a long time'

Sergiejs Stepanovs, 47, known as CJ, had been experiencing migraines for several months. He had been getting by on pain killers, but when his vision became cloudy and the headaches worsened. he called into his local opticians.

'I have to confess that I hadn't had an eve test for a long time. Instead, I'd been buying ready readers off the shelf and not really thought about the consequences,' he says.

Optometrist Chris Docker carried out an eye examination. Although it is unusual to see closed angle glaucoma in someone of CJ's age, especially when there's no family history, Chris suspected this was the case. The high level of pressure behind CJ's eyes was so alarming Chris advised CJ to go to the hospital eye department immediately.

The diagnosis was confirmed and CJ was admitted for laser iridotomy, where a laser is used to put additional drainage channels

into the eye to relieve the pressure. He is now back at work, though still under the care of the hospital, with monthly check-ups to monitor the condition. CJ has also now developed cataracts, which can be one of the side effects. He has had one removed and is awaiting surgery on the other eye.

'This experience has taught me to be far more careful about my health,' adds CJ, 'I'm now telling all my friends that they must get regular eye examinations.'

# Improving access and tackling inequality

New Integrated Care Systems in England are focused on improving health and care outcomes, reducing inequalities and addressing the consequences of the pandemic for communities. Some populations are invisible to services and need services provided in different ways[32].

Residents in care homes often have multiple needs and health conditions, such as vision and hearing loss, mobility difficulties and memory loss or confusion. It can be hard to separate the signs of vision loss from those of dementia as one condition may mask the other[33]. However, good eye care can help to make sure glasses are current, clean and correct, and many people living with complex needs are eligible for a free NHS-funded eye test at their own home or in their residential care setting.

People living in care, their relatives and friends, experienced long periods of separation, loneliness and isolation during the pandemic. The Relatives & Residents Association champions the

rights of older people needing care in England.

'Poor eye care can be debilitating for people living in care. It can restrict independence, hamper communication, limit quality of life and affect mental wellbeing, as well as posing a risk to health from falls[34], particularly for older people living with hearing loss or dementia. Prompt access to optometrists is crucial and so too is everyday support to ensure people have the correct glasses. Too often our helpline clients report problems with glasses being lost, dirty or broken.'



Helen Wildbore, Chief Executive, Residents and Relatives Association

People experiencing homelessness also face significant barriers to accessing health care. Research shows that homeless people have more eye problems than the general population[35]. These include high prevalence of uncorrected refractive error, cataract, glaucoma and binocular vision problems[36].



**Above:** Optometrist Benji Chandra, volunteering.

They are more exposed to risk factors, such as poor nutrition, trauma, smoking, drug abuse and infections[37], so are at higher risk of macular degeneration and health conditions such as diabetes or hypertension, which can lead to vision loss.

Specsavers has partnered with Vision Care for Homeless People, Crisis and The Big Issue to improve access to eye care for homeless people throughout the UK. 'Accessible eye care should be part of an holistic approach to the complex combination of problems that homeless people experience. We need a national approach to the eye care needs of homeless people with new health care pathways, including support for homeless people to access both primary and, when referred, secondary care systems.'



David Brown,
General Manager
of Vision Care for
Homeless People

## Collaborating to save sight

The College of Optometrists and The Royal College of Ophthalmologists produced a joint vision statement setting out how primary and secondary care providers can work together to deliver high quality patient care. This is now underpinned by new quidance[38] that maps clinical training to glaucoma patient pathways. This guidance supports a multidisciplinary workforce and promotes the role of local optometrists in glaucoma care. It aims to empower

optometrists with specified qualifications to manage patients in different glaucoma risk categories within their primary care community settings.

'Our new joint Designing Glaucoma Care Pathways guidance recognises the valuable contribution the optometric profession can make in managing rising levels of demand for eve care, and the value of The College of Optometrists' higher qualifications in

enabling optometrists to provide further autonomous care. This development will empower optometrists to manage patients in different glaucoma risk categories within both secondary and primary care settings. Our workforce is able and fully committed to help reduce the backlogs which put glaucoma patients at risk of permanent and avoidable sight loss.'



**Professor Leon** Davies, President of The College of **Optometrists** 

'We are committed to improving access and reducing the backlogs limit the risk of permanent and avoidable sight loss in patients with glaucoma. This joint guidance empowers local

optometrists with specified qualifications to manage patients in different glaucoma risk categories within their primary care settings. Only by increased working in multi-disciplinary teams can we tackle the

issue of glaucoma care in our communities.'



**Professor Bernie** Chang, President of The Royal College of **Ophthalmologists** 



them all in hospital. We urgently need systems that enable delivery of care in community settings, managed by a highly skilled optometry workforce, engaged in twoway communication with hospital eye services. This easy, equitable access to care is significant for patients with eye problems, who often can't drive, it impacts on how likely they are to attend and reduces the cost of travel. saving people and the system money.

I firmly believe this change is coming and we are ready to

help shape the future.'

Adam Sampson,

AOP Chief Executive

placed to be part of the solution and the future of eye care. Thousands of optometrists have already developed their knowledge using the higher qualifications available, with many more on the journey. Continued exposure to patients in ophthalmology and shared clinics will only improve their skills. We have always been committed to funding these kinds of development opportunities for our clinicians and our world class continuing professional development programme is open to all. The scale of our work means our data provides a valuable

evidence base for improving patient outcomes and for developing services. We are investing in communications technology, equipment and sharing learning from our Clinical Outcomes Report in a constant drive to improve patient care.'



Giles Edmonds, Specsavers Clinical Services Director

## The future of glaucoma care

#### Our research identified key areas of opportunity[39]

Consistency in care models. The regionalised funding model within England drives regional differences in the roles that optometrists play in glaucoma care. Applying a standardised approach to glaucoma patient referrals and applying NICE guidelines would help create consistency and lead to efficiency gains in the care pathway.

Enhanced role for optometrists. A variety of Glaucoma Referral Filtering Services (GRFS), to identify patients who can be managed within a community optometry setting and more complex cases requiring referral to secondary care, have been developed. Scotland, Northern Ireland, and

Wales have well established protocols for the use of primary care optometrists in the glaucoma care pathway supported by coordinated funding. With investment in shared care approaches and training there is potential to expand the role of optometrists everywhere and notably in the glaucoma care pathway in England.

Investing in enablers of optimised care **delivery.** Technology that supports two-way communication between optometrists and ophthalmologists, including telemedicine that enables real time virtual connection. has enormous potential to reduce capacity constraints in the eye care system. There are working infrastructure examples that can be leveraged at scale to provide more capacity for glaucoma care in the community.

Against a backdrop of complex challenges that will endure far beyond the pandemic, we need a co-ordinated approach to tackle the issue of glaucoma care in our communities because patients are at risk of irreversible vision loss.

Any capacity created in NHS ophthalmology outpatient clinics is quickly taken up by servicing the patient backlog. Reducing referrals is a necessary part of recovery[40].

'Provision to implement the risk stratification guidance

from the Royal College of Ophthalmology and the College of Optometrists is already in place for patients with severe disease; they are actively managed by glaucoma specialists. Provision for patients at lower risk requires a wholesale re-engineering of pathways, making full use of community optometry. Effective practise - diagnostic hubs, community clinics, glaucoma referral refinement, enhanced case finding, virtual clinics, consultant-led multidisciplinary teams needs to be scaled up at pace. It is critical that patients

receive repeated follow-up - on time, every time - and the full range of tests at each visit (visual acuity, IOP, angle assessment, disc OCT and visual field test). These results should be reviewed virtually by a trained glaucoma specialist - a qualified optometrist or an ophthalmologist. This requires modelling, research, collaboration, recognition and funding.'



Nigel Kirkpatrick, Consultant Ophthalmologist and Medical Director of Newmedica

## A final word

Even before COVID-19, our entire sector recognised the need to do things differently to release capacity in ophthalmology. The transformation we had begun has accelerated rapidly during the past 12 months. We have adopted smarter ways of working and community optometry remains the frontline for patients with urgent eye care needs.

Yet it is clear that we need more capacity to meet current and future demand for glaucoma services. While this is a complex issue there are two key areas that need to be addressed. We need to reduce the numbers of patients who need to be seen in secondary care, for example by using referral filtering models consistently. We also need to increase capacity for those patients through the wider adoption of shared services. We have quidance from NICE and our professional bodies for standardised glaucoma care pathways and this report highlights examples of community optometry and ophthalmology services collaborating effectively to meet patient need and save sight. More than ever, our leadership conversations need to be driven by data and



**Doug Perkins,** Chairman and Founder of Specsavers

evidence to scale these up at pace, drawing on the tools and expertise already in place in the community.

And there are other pressing issues to consider, such as the number of undetected glaucoma cases. Glaucoma is the most preventable cause of blindness in the UK. provided early detection and treatment is in place. It is shocking that patients are losing sight from this treatable condition while on waiting lists. Prevention must be a priority for us all and together we need to reach millions of people with important messages about looking after their eyes. Specsavers is working alongside our partners, Glaucoma UK and Visionary, to raise awareness of the importance of eye health and regular eye tests because many people are unaware that glaucoma often has no symptoms. For those with confirmed glaucoma, regular monitoring is crucial, yet challenges to capacity mean that appointments are often rescheduled.

Health inequalities have been sharply magnified during the past two years. We all want to improve access to services for those most at risk of avoidable sight loss. At Specsavers, we have committed to a long-term partnership with Vision Care for Homeless People, Crisis and The Big Issue to provide high quality eye care to people who are not in a position to advocate for themselves and who are unable to access NHS services. Their lived experience will be a powerful tool to help us identify better ways to meet their needs as part of wider, more holistic support.

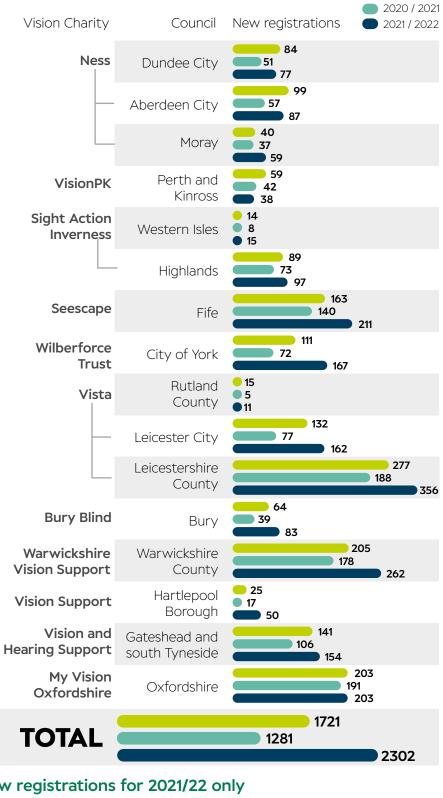
Our founding vision has always been to make the best eye care available to everyone. We are completely focused on being part of that solution, going the extra mile to care for the nation's eye health, so reducing avoidable sight loss.

Data on registration was provided by local vision charities.

#### New registrations following certification of vision impairment

## Method

Deloitte Access Economics analysed the innovations in glaucoma care pathways to identify alternative models of care practised throughout the UK, which may inform improvements to the model of care for glaucoma detection and treatment in England. This analysis included a review of relevant literature and data sources, which were validated through semistructured consultations with nine leading ophthalmologists and optometrists from each UK nation. These stakeholders shared their observations of the impact of the COVID-19 pandemic on glaucoma care pathways; steps taken to continue the detection. diagnosis and treatment of glaucoma during the pandemic; and their views on how these innovations could be embedded into the care pathway for glaucoma care in England.



#### New registrations for 2021/22 only



## References

[1] How can I see the Andromeda Galaxy? Abigail Beall. 08 December 2020. BBC Science Focus Magazine. https://www.sciencefocus.com/space/how-can-i-see-the-andromeda-galaxy/
[2] What are the limits of human vision? Adam Hadhazy. 27 July 2015. BBC Future https://www.bbc.com/future/article/20150727-what-are-the-limits-of-human-vision

[3]OnePoll online survey. Fieldwork undertaken on 18 August 2022 with a UK-wide sample of 2000 respondents aged 18 and above. Responses weighted to be representative of all UK adults.

[4]OnePoll online survey. Fieldwork undertaken on 18 August 2022 with a UK-wide sample of 2000 respondents aged 18 and above.

Responses weighted to be representative of all UK adults.

[5]Schaneman, J. et al. (2010). The role of comprehensive eye exams in the early detection of diabetes and other chronic diseases in an employed population. Population health management, 13(4), 195–199. https://doi.org/10.1089/pop.2009.0050

[6]Chiquita, S. et al. (2019). The Retina as a Window or Mirror of the Brain Changes Detected in Alzheimer's Disease: Critical Aspects to Unravel. Molecular neurobiology, 56(8), 5416–5435. https://doi.org/10.1007/s12035-018-1461-6
[7]Villaplana Velasco A. (2022). Abstract C22.6: Decreased retinal vascular complexity is an early biomarker of myocardial infarction supported by a shared genetic control. Abstract presented at the Annual conference of the European Society of Human Genetics, in Vienna. Austria.

[8] Kuang, T. M. et al. (2015). Estimating Lead Time Gained by Optical Coherence Tomography in Detecting Glaucoma before Development of Visual Field Defects. Ophthalmology, 122(10), 2002–2009. https://doi.org/10.1016/j. ophtha.2015.06.015

[9] Gascoyne B. et al. (2022). Vision impairment and self-reported anxiety and depression in older adults in Nigeria: evidence from a cross-sectional survey in Kogi State. International Health, 14 (1), i9-i16. https://doi.org/10.1093/inthealth/ihab070

[10] Lundeen, E. A. et al. (2022). Self-Reported Vision Impairment and Psychological Distress in U.S. Adults. Ophthalmic epidemiology, 29(2), 171–181. https://doi.org/10.1080/09286586.2021.19 18177

[11]RNIB. (2021). Key statistics about sight loss. https://www.rnib.org.uk/health-social-care-and-education-professionals/knowledge-and-research-hub/research-reports/general-research/key-statistics-about-sight-loss

[12] Pezzullo L. 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] Royal College of Ophthalmologists. (2021). Response from The Royal College of Ophthalmologists to the HEE Strategic Framework Call for Evidence. https://www.rcophth.ac.uk/wp-content/uploads/2021/09/RCOphth-response-to-HEE-Strategic-Framework-Call-for-Evidence-6-Sept-final-1.pdf [14]NHS England. (2022). Consultant-led referral to treatment waiting times data 2022-23. https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/rtt-data-2022-23/ [15]Royal College of Ophthalmologists. (2017). The Way Forward. https://www.rcophth.ac.uk/wp-content/uploads/2021/12/RCOphth-The-Way-Forward-Glaucoma-300117.pdf [16]National Institute for Health and Care Research (NIHR). (2020). Glaucoma patients most at risk of sight loss.

https://evidence.nihr.ac.uk/alert/glaucomapatients-most-at-risk-of-sight-loss-wereidentified-in-a-new-study/

[17]Soh, Z. et al. (2021). The Global Extent of Undetected Glaucoma in Adults: A Systematic Review and Meta-analysis. Ophthalmology, 128(10), 1393–1404. https://doi.org/10.1016/j. ophtha.2021.04.009

[18] Deloitte Access Economics. (2021). The economic impact of coronavirus (COVID-19) on sight loss and blindness in the UK.
[19] 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.

[20]Royal College of Ophthalmologists. (2017). The Way Forward. https://www.rcophth.ac.uk/wp-content/uploads/2021/12/RCOphth-The-Way-Forward-Glaucoma-300117.pdf
[21]Okeke C. (2016). Familial Glaucoma Risk: Spreading the Word. Review of Ophthalmology, July. https://www.reviewofophthalmology.com/article/familial-glaucoma-risk-spreading-the-

[22]Burr, J. M. et al. (2007). The clinical effectiveness and cost-effectiveness of screening for open angle glaucoma: a systematic review and economic evaluation. Health technology assessment (Winchester, England), 11(41), iii–190. https://doi.org/10.3310/hta11410
[23]Deloitte Access Economics. (2021). The economic impact of coronavirus (COVID-19) on sight loss and blindness in the UK.
[24]Glaucoma UK. (2022). The impact of COVID-19 on glaucoma care, in numbers. https://glaucoma.uk/covid-19-impact/ accessed 30 June 2022

[25]CISION PR Newswide. (2021). Survey Suggests That People Living With Glaucoma are Potentially at Increased Risk of Sight Loss and blindness due to COVID-19 Pandemic. https://www.prnewswire.co.uk/news-releases/survey-suggests-that-people-living-with-glaucoma-are-potentially-at-increased-risk-of-sight-loss-and-blindness-due-to-covid-19-pandemic-865737382.html

[26]BBC News. (2021). Covid delays lead to 'significant' sight loss across Wales. 01 July. https:// www.bbc.com/news/uk-wales-57668307 [27]BBC News. (2022). NHS delays: Avoidable blindness fears over eye care waits. 29 June. https://www.bbc.co.uk/news/uk-wales-61965909 [28]Public Health Scotland. (2019). Table R044X: Speciality Group Costs – Consultant Outpatients. April 2018 - March 2019. https://www.isdscotland.org/health-topics/finance/costs/Detailed-Tables/Speciality-Costs/Outpatients.asp (accessed 17 August 2022).

[29] Bourne, RR. Et al. (2010). Can a community optometrist-based referral refinement scheme reduce false positive glaucoma hospital referrals without compromising quality of care? The community and hospital allied network glaucoma evaluation scheme (CHANGES). Eye, 24, 5, 881-7. [30] FutureNHS Collaboration Platform. (2022). Glaucoma 'How To' – Eye Care Hub. https://future. NHS.UK/nationaleyecarehub

[31] Royal College of Ophthalmologists. (2021). Eye care planning implementation guidance 2021–22 Summary Annexe. https://www.rcophth.ac.uk/wp-content/uploads/2021/06/Eye-Care-Planning-Implementation-Guidance-2021-22-Summary-Annexe-1.pdf

[32]The Kings Fund. (2022). The Health and Care Act 2022. https://www.kingsfund.org.uk/projects/health-and-care-act-2022-make-sense-legislation

[33]Alzheimer's Society. (20??) Sight and hearing loss with dementia. https://www.alzheimers.org. uk/about-dementia/symptoms-and-diagnosis/sight-hearing-loss

[34]Boyce, T. et al. (2013). Projecting number of falls related to visual impairment. British Journal of Healthcare Management, 19 226-229. https://doi.org/10.12968/bjhc.2013.19.6.284

[35]Gelberg, L. et al. (2000). The Behavioral Model for Vulnerable Populations: application to medical care use and outcomes for homeless people. Health services research, 34(6), 1273–1302. [36]Shahid, K. et al. (2012). Ocular telehealth screenings in an urban community. Telemedicine journal and e-health: the official journal of the American Telemedicine Association, 18(2), 95–100. https://doi.org/10.1089/tmj.2011.0067

[37]Bowen, M. et al. (2019). Multimorbidity and emergency department visits by a homeless population: a database study in specialist general practice. British Journal of General Practice, 69 (685): e515-e525. https://doi.org/10.3399/bjgp19X704609

[38]The College of Optometrists. (2022). New joint guidance maps clinical training to glaucoma patient pathways. https://www.college-optometrists.org/news/2022/may/new-joint-guidance-maps-clinical-training-to-glauc [39]Deloitte Access Economics. (2022). Analysis of changes in care pathways for glaucoma. https://www2.deloitte.com/au/en/pages/economics/articles/analysis-of-changes-in-care-pathways-for-glaucoma.html [40]FutureNHS Collaboration Platform. (2022). Optometry discussion thread. https://future.NHS. UK/nationaleyecarehub

Specsavers' founding vision is to make the best eye care available to everyone so, we've made advanced eye health scanners accessible for all, not just the few.

Advanced eye health scanning available in store

Thought you should know



Thought you should know

Specsavers

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Specsavers new advertising campaign to promote OCT

## **Further Information**

#### Glaucoma UK Helpline

**Tel:** 01233 64 81 70 (9.30am – 5.00pm on weekdays)

Email: helpline@glaucoma.uk

#### **Relatives & Residents Association Helpline**

**Tel:** 020 7359 8136 (9.30am – 1pm Monday to Friday, and 6pm–8pm Thursdays)

**Email:** helpline@relres.org **Webchat:** www.relres.org

#### **Vision Care for Homeless People**

Website: www.visioncarecharity.org

#### Visionary

**Website:** www.visionary.org.uk **Email:** visionary@visionary.org.uk

The State of the UK's Eye Health 2022 report highlights the lasting impact of the coronavirus pandemic on Britain's eye health. Routine eye testing in the community was restricted during the pandemic and NHS eye care services are now struggling to cope with the backlog and growing demand. Senior ophthalmologists say waiting lists for key treatments are the longest they have ever been and speak of 'a tidal wave of avoidable blindness'. Glaucoma is an insidious disease. Vision can be irreparably damaged before patients experience symptoms - we are sitting on a glaucoma ticking time bomb. We must draw on the professional expertise of the entire eye care sector to improve glaucoma care to save sight.

This report is available to download from: specsavers.co.uk/reports/state-of-the-uks-eye-health-2022

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