



# The State of the UK's Eye Health 2021

Specsavers





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# Summary

In response to the pandemic, eye care services in the UK were withdrawn, reduced or restricted. This led to millions of missed eye tests, delays in treatment and extended waiting times for patients. The huge backlog will require additional time and resources to clear, resulting in substantial costs for our health and social services in years to come. Most importantly, sight threatening conditions that were not identified and managed in a timely way may have led to vision loss and even blindness. Specsavers commissioned Deloitte Access Economics to quantify the scale of these issues. This report presents the alarming results of this research and recommends the entire eyecare sector works together so that patients are treated at the right time, in the right place, by the right professional.

# Acknowledgements

We would like to thank Clive Griffiths, David Gibbons, Debora Krut, Olwyn Mason, Pam Humphries, James Bell-Taylor and his daughter Sofia for sharing their stories. Their experiences motivate all of us to deliver the very best patient care.

The coronavirus pandemic has had catastrophic effects on older people's lives. We are grateful to Age UK for helping us highlight the mounting evidence that sight loss has implications for physical,

cognitive and mental health.

Thank you to all at Glaucoma UK and Chair, Professor Philip Bloom, for sharing your experiences of supporting people with glaucoma and working with us on data-sharing to raise awareness of the need for early detection. Thanks also to Visionary, the umbrella body for local sight charities, especially Visionary members Bury Blind, Galloway's, Ness, seescape, Sight Action, Sight for Surrey, VisionPK, Vision Support,

Vision and Hearing Support, Vista, Warwickshire Vision Support and Wilberforce Trust, who worked with us to identify the backlog in sight impairment registrations.

We appreciate the support, advice and comment from all of our eye health colleagues who have contributed their expertise to this report. Together we can do so much more.



Report author  
Dr Philippa Simkiss

# Foreword



Professor Philip Bloom,  
consultant ophthalmic  
surgeon and Chair of  
Glaucoma UK

Throughout the pandemic, so many of us in eye health services have worked hard to provide urgent care to those who have needed it. Initially, community optometry was required to severely restrict services, causing a reduction in referrals to hospital. Almost all routine testing in hospital eye services stopped and we dealt with emergency and urgent cases only. We developed risk assessments so that we could give care to those who needed it most. As restrictions began to ease, requirements for social distancing and other means of infection control meant that we all saw far fewer patients.

This has caused long delays and some patients have been waiting for more than a year for assessment or treatment. I am concerned about the huge backlog and that when people do start coming to see us – and they are still fearful of doing so – we will uncover a large amount of disease. While many will not have experienced any disadvantage from such a delay, sadly for some their condition will have progressed in a way it would not have done with earlier intervention and treatment.

We have long needed more patients to be seen in community optometry practices. The rationale for lockdown was to prevent hospitals from being overwhelmed. Well, our hospital eye services are overwhelmed! We must accelerate the pace of change by scaling up the innovation and collaboration established during the COVID-19 crisis.

I am greatly encouraged by new models of care that draw on professional expertise from the entire eye care sector and the speed at which we have adopted digital health technologies. Dreadful though this pandemic has been, when it passes it will leave a seismic cultural change that may otherwise have taken decades to come into force.

# UK risks a vision crisis

New research[1] paints a devastating picture of the impact coronavirus (COVID-19) has had on Britain's vision as the identification and treatment of eye disease was severely delayed. Hundreds of thousands of people were not referred for important checks because services were limited and some who were referred were reluctant to attend appointments. These patients are at increased risk of sight loss.

**4.3 million**



The drop in the number of eye tests delivered in 2020, a 23% decline compared to tests administered in 2019.

**316,000**

Referrals to ophthalmology fell by 316,000 in the period March to December 2020 compared to the same period in 2019, a 28% decrease[2].

**43,000**

The number of people referred with suspected glaucoma fell by an estimated 43,000. Of these around 2,600 would have been for urgent treatment.

**10,820**

The number referred for wet age-related macular degeneration (AMD) dropped by more than 10,820 in 2020.

**6,133**

The number of missing referrals for diabetic retinopathy in 2020.

The remainder are for other conditions. In the absence of COVID-19 all of these patients would have seen an ophthalmologist for review and treatment.

**Fewer treatments**

Ophthalmology outpatient attendances and day case procedures declined by 36% and 45% respectively between March to December 2020 compared to the same period in 2019[3]. The Royal College of Ophthalmologists advised continuation of anti-VEGF injections for AMD.

**'Congratulations for producing this useful report. All organisations in the eye health sector recognise the need to work together, ensuring that pathways are led by the highest standards of clinical governance to benefit patients. The vision statement from The Royal College of Ophthalmologists and The College of Optometrists sets out how primary and secondary care providers can continue to develop effective and innovative ways of delivering high quality patient care to reduce avoidable sight loss.'**



Professor Bernie Chang, President of The Royal College of Ophthalmologists

Evidence shows some patients did not attend [4,5,6] so it was estimated an average of 10% of anti-VEGF injections for AMD were delayed. Patients also had to wait longer for eye surgeries, such as cataract procedures. The research shows:

**11,062**

The drop in NHS glaucoma follow-up treatments given.

**8,680**

The estimated reduction in patients who received injections for diabetic retinopathy.

**6,313**

An estimated 6,313 fewer patients received injections for wet AMD.

**235,000**

The estimated number of necessary eye surgeries missed or delayed in 2020.

**2,986** 

## Lost vision due to the impact of coronavirus (COVID-19)

Sadly, an estimated 2,986 people have lost vision due to delayed identification and treatment of eye disease; some are experiencing severe sight loss and even blindness.

Community optometrists throughout the UK are working hard to deal with the backlog of cases. There is concern that this will result in a surge of emergency referrals to hospitals, which are already stretched[4,7].



## Debora's story

# 'Timely treatment saved my life'

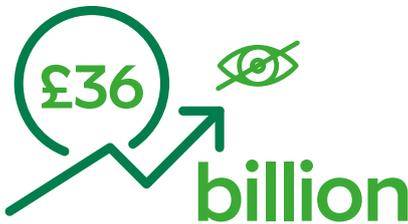
In November 2019, Debora Krut, a university student, was experiencing a sore neck, nausea, vertigo and changes in mood. Debora thought these symptoms were caused by stress and she just needed to take more breaks. When she experienced double vision, Debora called the hospital and was advised to book an emergency appointment with her community optometrist. She was seen the same day by Ciara Ní Chléirigh. 'I tried

a prism lens to help correct Debora's double vision, but it didn't help, which is unusual,' says Ciara. 'When I used the volk lens and a slit lamp I could see a swelling on the optic nerve at the back of the eye, which was a sign of papilloedema, usually caused by an increase in pressure around the brain. I tried to reassure Debora as I referred her to hospital straight away for further examination.'

Debora picks up the story. 'Tests later that day confirmed that I had a brain tumour. I had surgery to remove the tumour followed by proton beam therapy. Thankfully there is only a very slim chance of the tumour returning. I'm now telling everyone to make sure they get their eyes tested.'

# The high cost of lost vision due to COVID-19

Our new research shows:



In 2019, before the pandemic, the annual UK cost of sight loss and blindness was estimated at £36 billion.

## £778.3 million

The cost of sight loss and blindness to the UK healthcare system declined by £778.3 million in 2020 due to reduced use of services.

This reduction may have serious and ongoing implications in the coming years, not least for those who have lost vision.

This backlog of services is also likely to impose significant costs for people with sight-threatening conditions as they live with a greater risk of falls, fear of (further) vision loss, productivity losses and reduced quality of life while waiting.

## 57.2 million days

If it takes three years to clear the backlog, people will wait an aggregate additional 57.2 million days for their eye surgery.

## £2.5 billion

The estimated additional economic cost of sight loss and blindness due to the pandemic between 2021 and 2024.

## £1.7 billion

The net additional impact on the cost of sight loss and blindness in the UK between 2020 and 2024 due to the pandemic.

As the pandemic eases, community optometrists are seeing people who are presenting with new sight loss. They include people who would normally have had an eye test during the lockdown period but were encouraged to shield or were reluctant to leave their homes. In some cases, their disease is more advanced and their sight loss is irreversible. Some will need support for the rest of their lives. This presents an additional personal and societal cost, far greater than the health cost the research has revealed.

'We have patients who delayed being seen due to anxiety about COVID-19 outweighing their concern about loss of vision.'

*Ali Ganiwalla, community optometrist in Great Yarmouth*

'I have seen many complicated cases of patients following severe disease.'

*Karan Vyas, community optometrist in Corby*

'We have noticed an increase in diabetic retinopathy, macula holes and wet AMD.'

*Lindsey Taylor, community optometrist in Blackpool*



Local vision charities supporting people with deteriorating vision are aware of the substantial backlog of people who would normally be offered certification of vision impairment and registration[8]. One charity reports a 50% drop in certifications at their local hospital trust (from 175 to 88) during the pandemic. The total new registrations received by 11 charities managing the Sight Impairment Register for 17 Council areas in England

and Scotland reduced by 28%, comparing the year ending March 2021 to the previous year (see p30). Experts anticipate a flood of patients with newly presenting sight loss and significant eye disease, including those whose sight could have been saved[7,9].

‘Visionary members from throughout the UK provide community based support, information and advice to people living with sight loss.

This means that people with sight loss and their families can access services where and when they need them. We are hugely concerned about the volume of people, probably reaching crisis point, who will need community services and hospital eye care. I would urge anyone reading this report to ensure that you know who your local sight loss organisation is and how to



direct people to them.’  
**Fiona Sanford, CEO of Visionary**

## Clive’s story

# ‘Being told I had advanced glaucoma was heartbreaking’



While shielding due to health conditions that make him particularly vulnerable to COVID-19, Clive Griffiths noticed something was wrong: ‘It felt as if my eye was half filled with water, I could barely see out of the bottom of it. It was terrifying.’

As Clive was unable to leave his flat, optometrist Jason Scaife visited him at home.

Jason spotted that Clive had advanced glaucoma in both eyes so arranged an urgent review at the University Hospital of Wales. This and the swift follow-up appointments Jason completed helped save vision in Clive’s right eye though sadly not his left. Clive’s story

goes to show why a home visits service is so vital. ‘While we were unable to reverse the damage, our intervention meant that at least some of Clive’s vision could be saved. Much later, this wouldn’t have been the case,’ said Jason.

# Tackling a nationwide emergency

'The pandemic has worsened the pre-existing delays to eye care and there are now numerous patients waiting to be seen. However, through the co-ordinated work between organisations, including NHS England Improvement National Eye Care Recovery and

Transformation Programme, Getting it Right First Time, The Royal College of Ophthalmologists and College of Optometrists, and major eye charities such as RNIB, the National Eye Care Recovery and Transformation Programme has provided clear recommendations, which are being put into place across the country, to

reduce these waits and are developing plans for more transformative action. It is crucial that all organisations and professionals responsible for or delivering eye care in England, engage with this work to ensure equitable, timely access to care for all patients.'



Melanie Hingorani,  
Consultant  
Ophthalmologist,  
Clinical Lead for the NHS  
England Improvement National  
Eye Care Recovery and  
Transformation Programme



## Scotland

'In Scotland, opticians worked to care for their patients, offering remote services for emergency and essential care throughout lockdown. This ensured vital eye care was available to all throughout the pandemic. The establishment of Emergency Eyecare Treatment Centres (EETCs) meant that emergency patients were able to be seen when not able to be managed remotely.

We were pleased when we were able to offer routine eye examinations once again. While emergency and essential cases continue to be prioritised, the importance of routine examinations cannot be underestimated, and indeed in Scotland everyone is entitled to an NHS-funded examination. Practices across the country are continuing to wear NHS-provided PPE and are scrupulously following infection control procedures.'

**Julie Mosgrove, Vice Chair of Optometry Scotland**

## Wales

'Despite the initial challenges at the start of the pandemic, the Wales Eye Care Service has delivered some tremendous innovation. For example, in Cardiff optometrists qualified in Independent Prescribing set up a service to diagnose, manage and treat patients in the community presenting with conditions that would have been directed straight to Eye Casualty, seeing approximately 80% of the cases. The reputation of optometrists as frontline healthcare workers has grown. Patients have a greater understanding that they can make an appointment with their community optometrist for their health, not just to purchase eyewear.'



**Sali Davis, CEO of Optometry Wales**

## Northern Ireland

'Although now back to near normal pre-COVID levels, primary eyecare activity in Northern Ireland was impacted dramatically after lockdown. Average General Ophthalmic Services and Enhanced Service claims prior to the pandemic were c185K per quarter. For Q1 (April-June) 2020/21 this number fell to c19K.

In line with strategic frameworks, all COVID-19 response work was undertaken with a co-ordinated primary and secondary care approach to ensure that demand was met, where possible, in the most appropriate clinical setting.

Northern Ireland's Health and Social Care Board (HSCB) supported and permitted community optometry practices to deliver risk-stratified and needs-driven care throughout lockdowns. However, although HSCB has reasonable confidence that the majority of need for essential and urgent primary eye care has been met, the challenge to manage demand for ophthalmic services continues. Community optometrists are playing a vital role in delivering new models of integrated care, managing patients closer to home.'



**Raymond Curran, Head of Ophthalmic Services, Health and Social Care Board, Northern Ireland**



Tackling a nationwide emergency

## Supporting NHS ophthalmology services throughout England

Newmedica is a leading provider of NHS-funded ophthalmology services in England. The Newmedica-Speksavers partnership works closely with all optometrists and GPs through a national network of specialist eye clinics. The aim has always been to transform care and treatment in the community for patients facing the prospect of losing sight.

During the course of the pandemic, more than 4,000 patients were transferred to Newmedica eye health clinics and surgical centres throughout England by the NHS locally. While most of these appointments were for cataract surgery and follow-up, patients also attended Newmedica clinics for glaucoma and wet age-related macular degeneration treatment. The programme focused on patients waiting the longest for treatment, so people were seen in order of need.

**Adam Wannell MCOptom,**  
Head of Clinical Optometry  
at Newmedica

As COVID-19 restricted access for patients our partnership with Newmedica has helped us proactively manage our ophthalmology care, allowing the hospital eye service to focus on emergencies and urgent and complex cases.

**Simon Taylor, Associate Director of Operations, Surgery and Anaesthetics, West Suffolk Hospital**

The last year has highlighted the difficulty in supporting the local acute system to deliver outpatient follow-ups and some surgical capacity. Flexibility by all partners and the willingness to do all we can to treat patients as safely and quickly as possible was evidence of useful joint working.

**Eddie McCabe, assistant director of contracting and performance at North East Lincolnshire CCG**

# Putting families first

Nobody can deny that COVID-19 has wreaked havoc on the nation's health, but the ripple effect of the pandemic is now laying bare its devastating impact on unforeseen aspects of wellbeing, none more so than our eyesight.

Disturbing statistics from the College of Optometrists[10] have revealed how almost one third (31 per cent) of UK adults claimed their vision deteriorated during successive lockdowns and Daniel Hardiman-McCartney, clinical adviser at the College, says that there's evidence of 'a marked increase in those worried about their eyesight'.

The reasons for this concerning trend are multi-fold. Stuck at home, alcohol consumption increased[11], people smoked more cigarettes[12] and ate less healthily[13], all of which have a negative effect on optical health. Exposure to natural daylight, essential for healthy eyes, plummeted as we spent more time indoors, often hunched over screens as we worked, exercised and shopped at home. But a reluctance

to seek advice about vision concerns has undoubtedly played a part in diminishing eye health too. Tellingly, community optometrists reported a sharp downturn in the number of people of all ages booking eye tests. Ophthalmologists also noted a rise in missed appointments in the past 12 months[10,14] with Moorfields >



IMAGE: ISTOCK



Eye Hospital, King's College London Hospital, University Hospital Southampton and Whipps Cross Hospital reporting steep drops of up to 87 per cent in attendance in some groups during the first months of the coronavirus outbreak[14].

The no-show for eye appointments extended to people with known age-related macular degeneration (AMD) – the nation's biggest cause of blindness – with researchers from UCL Institute of Ophthalmology and the Macular Society suggesting there was a 25% reduction in the number of patients with AMD attending appointments for sight-saving treatment [14]. Understandably, many cited concerns about catching COVID-19 or that

they had underestimated the seriousness of eye health[10] problems during a time when a life-threatening virus was afflicting so many.

Yet the resulting fall-out could be far-reaching and catastrophic. Parents have expressed concern about a decline in visual function impacting educational development of their young children[15] and researchers warned in the British Journal of Ophthalmology[16] that less time outdoors and more time in front of a screen might lead to an increase in myopia, or short-sightedness, in primary school-aged children. Financially, too, the burden of vision problems on society is considerable. Things will only get worse unless the downturn is redressed and this economic evidence should provide a springboard for government

action to prevent an epidemic of worsening eye health.

Action must also be self-initiated, fuelled by a desire to protect our own eye health and that of our family and friends. 'Your lifestyle can impact your eye health regardless of your genetic predisposition,' says David Cartwright, chair of the charity Eye Health UK, the organisation behind National Eye Health Week. 'What we eat and drink and how we exercise can all play a part in protecting our eyesight.'

Many eye diseases are linked to obesity and its related health problems, such as diabetes. Maintaining a healthy weight is important for eye health, as is eating a diet packed with eye-healthy antioxidant vitamins C, E, zinc, selenium and copper, which the European Food Safety Authority (EFSA) says play a key role in the fight against the development of eye conditions, such as age-related macular degeneration ➤

(AMD). Lutein and zeaxanthin, found in leafy green vegetables are also important as they have been shown to protect macula cells from oxidative stress. By taking responsibility to eat well we are taking important steps towards the future health of our eyes.

Dr Paramdeep Bilkhu, clinical advisor to the College of Optometrists, says we should all remember to take regular screen breaks. 'A useful reminder is the 20/20/20 rule, where we advise you look away in the distance (around 20 feet) every 20 minutes for 20 seconds, and blink regularly to keep the eyes comfortable,' Bilkhu says. And regular eye checks are vital in detecting problems early enough that they can be treated. 'Vision that is only slightly reduced can have a tangible influence on quality of life,' David Cartwright adds. 'It is so important that you encourage everyone in your family to have their eyes tested regularly and to seek help for any eye problems sooner rather than later, especially as much sight loss can be avoided if detected early.'



Peta Bee,  
health and fitness  
journalist



## Sofia's story

# Sofia, aged six, experienced a change in her eyesight which left her unable to see clearly, with or without her glasses

Her father James contacted the eye hospital. They were unable to confirm an appointment for several months due to the coronavirus crisis. James had some immediate concerns around Sofia's deteriorating vision so he contacted his community optometrist in Berwick. Sofia was given an immediate appointment. James says: 'Sofia was supported throughout her eye examination. She was made to laugh non-stop by the team, which made

her experience enjoyable. During the whole process, gloves, masks and visors were changed regularly and Sofia was given PPE to wear, which she thought was great. She now has new glasses with her new prescription, which was a significant change from the previous one. Most importantly, she can see properly again.'



# Living well in later life

There are more than 12 million people in the UK aged 65 or over. More than 1.5 million are aged 85 or over[17].

Evidence shows the risk of serious eye conditions and sight loss increases with age.



Currently one in five people aged 75 or over is living with sight loss[18].

Losing vision, or hearing, can have a major impact on wellbeing and for older people the risk of falling, with adverse outcomes, increases significantly[19].



272,000

137,500

In the UK it is estimated that 272,000 people with sight loss aged over 65 experience a fall each year and of these nearly half are directly attributable to problems with vision.

10,000+



Poor vision is the direct cause of more than 10,000 serious falls every year that result in hospital admission[18].

There is mounting evidence that sight loss affects more than how people see and has implications for physical, cognitive, and mental health[20]. Older people, like David below, are typically extremely resilient but as coronavirus made access to support more difficult, those dealing with significant health challenges have struggled to cope[21].

‘Eye problems are increasingly common as we age, so it’s more important than ever to look after our eye health and have regular check-ups with a community optometrist at this stage in our lives. We know waiting lists have become horrifically long for routine surgery but that’s no reason to ignore any changes in our sight. No one should hang back from asking for help or an expert opinion about an eye problem. If you are in urgent need you will be a top priority for treatment. It’s always best to get a qualified



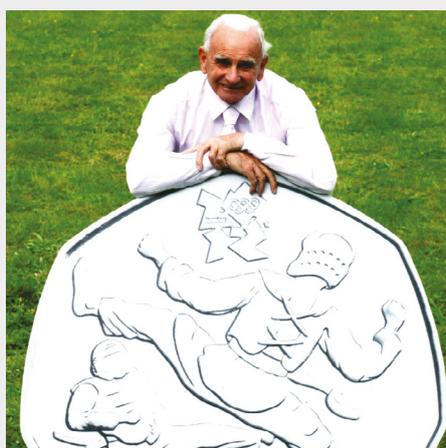
person to take a look and that will give you peace of mind too.’

Caroline Abrahams, Charity Director at Age UK

## David’s story

# ‘As an artist I value my sight and I know I could have lost it’

‘I’m very proud that my design was chosen for a commemorative 2012 Olympics 50p coin. It is now sought after by collectors.’ says David Gibbons. ‘As an artist I value my sight and I know I could have lost it.’ Mr Gibbons had cataracts removed from both eyes and takes drops each day to combat glaucoma. He has his sight checked throughout the year to ensure the glaucoma is kept at bay.



For many people glaucoma has no symptoms until a painless rise in pressure inside the eye has caused irreversible damage to nerve

fibres. This may lead to loss of vision if left untreated. ‘With a family history of glaucoma, I’m particularly careful,’ says Mr Gibbons. ‘There are treatment options for glaucoma and the earlier it’s picked up the better.

‘Everyone’s sight is precious. An eye test every two years should be on everyone’s to-do list because it can, quite literally, save your sight.’

# Sue Perkins shares her story and calls on everyone to have regular eye tests

Broadcaster, presenter and writer Sue Perkins is renowned for bringing joy and laughter to the nation, as a presenter on *The Great British Bake Off* and most recently as Dragon in *The Masked Singer* and the new host of BBC Radio 4's long running quiz show, *Just a Minute*.

Wearing glasses and looking after her eye health are integral to Sue's life. Her memoir, published in 2015, is called *Spectacles* and she was acknowledged for her Services to Specs at the 2019 Spectacle Wearer of the Year Awards.

'As a young child I had lots of squint operations, then I had an eye accident when I was 14. My optometrist told me I needed glasses because I could barely see anything out of my left eye. I put my new glasses on and now they are very much a part of who I am.

Sue also has experience of



eye health issues in her immediate family.

'My father's eyesight had been deteriorating so he went to his local Specsavers for some checks. I think the optometrist knew he was very ill, but she took care not to worry him as she referred him to a doctor. Sadly, we discovered my dad had an inoperable brain tumour. That is a source of huge personal pain for me and my family, but we remain so grateful for the care we received from Specsavers and the doctors.'

Sue admits she did not understand the importance of regular eye tests until then.

Now she thinks we all need to take our eye health more seriously.

'I think eye checks are incredibly important. It's not just about changing your prescription, it's to look at what's going on behind the eye to see if there are any developing issues. These tests can give you a really good idea of what's going on with your eye health and your general health overall.'

Sue knows most things that optometrists see can be treated if caught early enough.

'During the pandemic I went from a life that was busy and external to one conducted almost entirely on Zoom. I have a dry eye condition so itching and irritation were much more noticeable. This was easily sorted with drops. You don't have to live with these things if you have your eyes checked regularly.'

Sue has welcomed the 2021 State of the UK's Eye Health report.

'There needs to be more health messaging around the importance of eye tests. I hope the State of the UK's Eye Health report can point people in the right direction.'

# Looking to the future

Community optometry is supporting a growing number of people with more complex needs. People with dementia, learning disabilities and stroke survivors are all at increased risk of vision problems that can cause permanent damage.

## Stroke

60%

Around 60 per cent of stroke survivors immediately experience visual problems[22]. There are national guidelines recommending specialist vision assessment for this group.

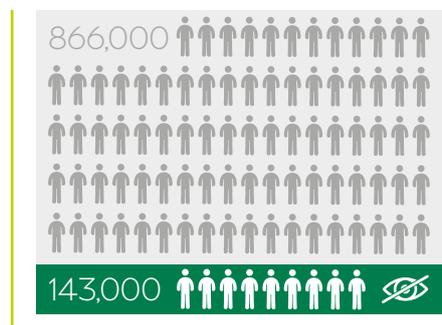


## Pam's story

### 'Thank goodness I made that call'

When Pam Humphries explained her sudden loss of vision over the phone to her optometrist, Manish Soni, he scheduled an appointment straightaway. Manish noted changes in blood pressure

## Dementia



In the United Kingdom, around 866,000 people are living with dementia[23]. Research indicates around 143,000 people have dementia and significant sight loss[24].

## Learning disability

10x

People with learning disability are ten times more likely to experience sight loss than the general population. In the UK there are around 105,700 people with learning disability and severe visual impairment or blindness[25].



More than half a million people with a learning disability experience refractive error, yet accessing eye tests can be challenging.

# Collaborating to save sight

Our patients are driving changes in the way health care is delivered.

Ophthalmology is the largest outpatient speciality with 7.8 million outpatient appointments annually[26]. Across the UK community optometry and hospital eye services are collaborating to meet patient need and save sight.

## Age-related macular degeneration

AMD commonly affects people over the age of 50 and it is the leading cause of blindness in the UK. As it affects central vision reading becomes difficult. Colours become less vibrant and people's faces are difficult to recognise[27].

Wet AMD can develop quickly. Early detection and treatment is vital to halt further development. Dry AMD can develop slowly and there is currently no treatment.

## 2.95 million

In the UK there are an estimated 2.95 million people living with the early stages of AMD

## 640,000

and 640,000 in later stages of the disease.



The number of people living with late stage AMD in the UK will increase by 27% by 2030[28].



## Olwyn's story

# 'I noticed changes to my vision'

'I made an appointment when I noticed changes to my vision,' says Olwyn. Community optometrist, Suresh Mahandru, was unable to detect any issues on the outermost visible surface of the retina initially, 'When I examined the images from the OCT, I could see there were fluid filled spaces within the retina itself,

which simply couldn't be seen without the use of the scan,' says Suresh. Olwyn's referral to the eye hospital came through within a week and a diagnosis of wet age-related macular degeneration was confirmed. If left, this could have resulted in a loss of vision. The hospital consultant made a treatment plan which

includes regular reviews. Olwyn recently returned to her community optometrist for an eye test. The results showed improved vision. 'I would strongly encourage anyone who notices a problem to make an appointment,' she says.

In Bedfordshire, enhanced community cataract pathways have been developed for pre and post-operative assessments. Pre-operatively this is key to reducing avoidable outpatient appointments and enabling risk stratification, thereby improving the patient experience. We use shared decision making to ensure that patients are willing to proceed with surgery before referral. All routine post-operative checks are also carried out by community optometrists, who check for complications and feed back



relevant information to the Hospital Eye Service.

Rachel Thomas, Lead Optometrist,  
Moorfields at Bedford

## Cataract

Cataract is a common eye condition, prevalent in older people. Over time cataracts cause the lens to turn cloudy making things look misty, especially on bright sunny days[27].

# 713,000

In the UK there are an estimated 713,000 people living with a cataract[28]



# 420,000

and currently there are 420,000 cataract surgeries per year[26].



By 2030 the number of people living with a cataract will grow by around 26%[28] and the demand for cataract operations will increase.



The majority of postoperative cataract appointments can take place in the community; the National Transformation Programme estimates 85%[26].

## Glaucoma

Glaucoma is a group of eye diseases which damage the optic nerve due to changes in pressure inside the eye (ocular hypertension). Symptoms often go unnoticed though as peripheral vision is affected first. For example, a driver with glaucoma might not see a pedestrian trying to cross the road at the periphery of their vision.

**1.39 million**

There are an estimated 1.39 million people living with ocular hypertension and a further

**708,000**

living with glaucoma. Early detection followed by careful observation and regular treatment can usually minimise loss of vision.



The number of people living with glaucoma in the UK will increase by around 18% in the next 10 years[28].



Glaucoma referral filtering schemes demonstrate that 50% of referrals are avoided and the rate of false positives falls from 40% to 10%[26]. The National Transformation Programme recommends scaling up this approach to reduce new patient referrals and introducing community diagnostic hubs to deliver glaucoma follow-up appointments.



Twenty per cent of follow up appointments in hospital eye services are for glaucoma.

### Glaucoma care in Wales

Glaucoma patients in Merthyr were the first to trial a new primary care-based assessment service supported by the Welsh Government's Health and Social Services Transformation Fund. Lower risk patients are assessed in a community optometry practice and results are shared in real time with ophthalmology consultants at Cwm Taf Morgannwg

University Health Board. If any deterioration is identified, the patient sees a consultant at a hospital-based eye clinic. If not, the patient will continue to be regularly reviewed locally. The technology being used to share patients' information is a first in the UK for eye care due to the way full scans and videos of the optic nerve, macula and visual fields taken during assessment are available instantly for the hospital-based specialists to review. Shared glaucoma care brings excellent care closer

to patients. The service uses the capacity and skills of local community optometrists to relieve the burden on secondary care. Hospitals can concentrate on seeing higher risk patients knowing lower risk patients are being seen on time in the community. This is the future of glaucoma care, and we will be at the forefront of this service model here in Wales.



**Andrew Feyi-Waboso,**  
Ophthalmic  
Consultant

## Diabetic eye disease



Over 1 in 20 people in the UK has diabetes[17,29].

# 1.33 million

Around 1.33 million people have diabetic retinopathy[30] which can lead to severe and permanent loss of sight. People might experience flashes of light or wavy vision, trouble with bright lights or difficulty in reading small

print[27]. Detection of early stage eye disease through regular diabetic eye screening and eye tests, then swift referral for treatment, can help prevent this.



In the next 10 years the number of people living with diabetic retinopathy in the UK will increase by around 5%[30].



More than 20% of follow up appointments in hospital eye services are for medical retina. Most are for macular degeneration or diabetic eye disease. The National Transformation Programme estimates that community optometry could deliver up to half of these appointments in diagnostic or treatment hubs[26].

## Sharing eye health data

Even before COVID-19, community optometry recognised the need to do things differently. The rise in emergency hospital admissions, more complex health problems and an aging population meant something had to change. NHS England National Eyecare Planning and Implementation Guidance[31] emphasises a co-ordinated approach to transform eye care, so patients are treated at the right time, in the right place, by the right professional.

Data-sharing is a critical part of this plan. ‘Sharing learning encourages more collaboration, which leads to better decision-making and improved patient outcomes. At Specsavers we give our optometrists clinical outcome reports as we believe that giving them greater access to data encourages continuous improvement to meet the needs of those who depend on us so much.



Giles Edmonds,  
Specsavers Clinical  
Services Director

**Glaucoma UK campaigns to raise awareness so glaucoma is detected early and can be treated.**

We support people to live well with glaucoma and we fund sight-saving research. We are passionate about raising awareness and want to highlight the significant impact COVID-19 has had on glaucoma care. Specsavers provided us with some of their data so we were able to comment on the 70% reduction in referrals from optometry to hospitals compared to 2019. This helped us draw attention to the need for an action plan to dramatically improve services as we emerge from lockdown.



Karen Osborn,  
CEO of Glaucoma  
UK

# Developing tomorrow's experts



Professional training for community optometrists is at the heart of the NHS Eyecare Recovery and Transformation Programme[32]. Gill Robinson, Director of Professional Training at Specsavers, has dedicated her career to professional advancement of community optometry. On the eve of her retirement Gill shares her view on the future of training and development.

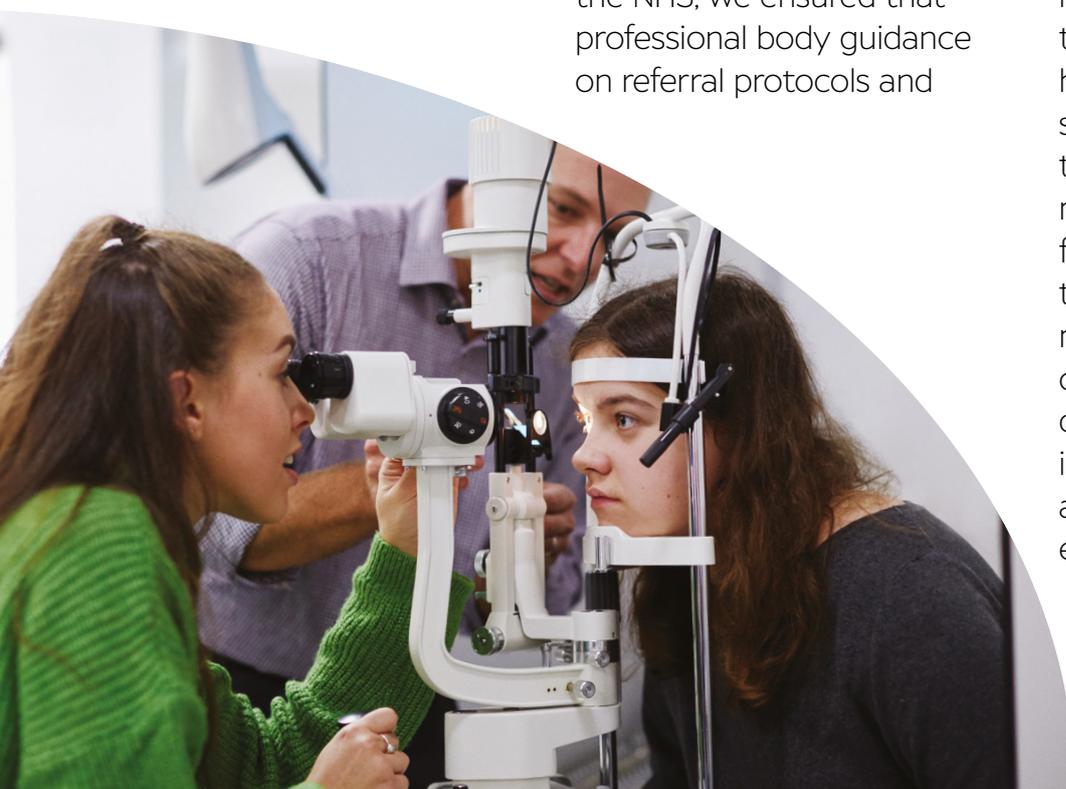
During the pandemic we found new ways to structure training sessions to make the most of online formats. Discussion with colleagues, which encourages the sharing of knowledge and experience, is a feature of the new-style sessions. Many are multidisciplinary with optometrists, contact lens opticians and dispensing opticians learning together in a way. Online delivery allows

us to schedule sessions for different times of the day so learning can fit around busy clinic schedules and there is no need to spend time travelling to conference venues. Feedback from our many thousands of participants suggests the majority wish to retain this flexible learning.

As referrals into hospitals became a critical issue to reduce the burden on the NHS, we ensured that professional body guidance on referral protocols and

safety procedures were at the heart of our training offer. All our clinical teams have the opportunity to tap into the expertise of ophthalmologists and specialist optometrists, enabling them to apply this to their decisions in community practices and give patients access to the right advice and care at the right time.

Gill says, 'I've been privileged to work alongside so many innovators and experts at a time of profound change. It has been exciting to make a small contribution as digital technology has opened up more accessible and engaging forms of learning. I am certain the next 25 years will offer many advances and new opportunities for professional development, through flexible, individualised programmes and collaborative learning environments.'





# Digital Innovation in Eye Care



Jason Higginbotham of FYEye Ltd is an independent Optometrist and Dispensing Optician. He reflects on how digital innovation has accelerated during the pandemic.

Sight-threatening conditions are increasingly seen as a threat to humanity, recognised by the WHO[33] and the United Nations[34]. AMD, glaucoma and myopia are economic threats, as well as human tragedies. Innovation will reduce these threats.

Artificial intelligence (AI), remote testing, telemedicine and remote refraction have evolved rapidly. A significant innovation in eye care has been OCT (optical coherence tomography). As education catches up with the technology, OCT should improve the early detection of glaucoma and

other eye conditions. AI is improving and will become widespread. Moorfield's eye hospital is working with Google Deep Mind to achieve reliable diagnostic ability from their OCT AI. AI for improved diabetic retinopathy screening is already used extensively and will continue to develop.



Digital innovation often promotes sustainable practices.

The OSA (Optical Suppliers Association) looks closely at how the manufacture of contact lenses, frames, and spectacle lenses can be more environmentally friendly. Optometry can reduce the load on ophthalmology out-patients. Shared care schemes that use data-linked resources can reduce printing and patient travel and in turn reduce our carbon footprint.

Innovation will make significant changes for the better and rapidly. Our patients seem to have embraced these solutions. Clinicians must do the same.

Telemedicine has seen a surge in use, mainly where community optometrists send results to hospitals serving large areas. CUES (COVID-19 Urgent Eyecare Service) was developed to send patient data to consultants - a form of telemedicine. Linked to this is the potential to carry out most parts of an eye examination without direct interaction with

the optometrist. Remote refraction is already used in some places. Robotic and automated equipment will be with us very soon.

Software delivers benefits, including the potential to conduct multiple diagnostic tests on computers in the patient's home. The potential for triaging or monitoring patients unable to visit their community optometrist is vast.

## A game-changing IT solution for glaucoma patients

Visual field assessment remains the only viable way of monitoring and detecting

change in glaucoma once visual field loss has occurred. The new Glauc-Strat-Fast risk stratification tool<sup>[35]</sup> draws on this approach and helps to reduce the burden on the NHS. Most importantly, however, it reduces avoidable blindness from delays in glaucoma care. The tool helps ensure that suitable

cases are sent urgently to the right professional. It is an excellent example of AI assisting clinicians to make better decisions, resulting in improved patient outcomes. Ultimately, other critical conditions like AMD, Myopia, diabetic eye disease and more could benefit from similar systems.

# A final word

In caring for eye health, so much has happened in the last 18 months – missed appointments, huge backlogs, entire families spending hours gazing at screens through lockdowns... and everyone knows about older family members too often isolated in their own homes or care homes for long periods. There's no doubt that this has been a tough year for all of us. Our State of the UK's Eye Health 2021 report paints a stark picture of the challenging context we have been living and working in.

Specsavers is so proud of the committed and talented people who have gone the extra mile to serve their communities during this time of crisis. This has accelerated the shift towards patient-centred pathways that deliver care nearer to home. Community eye care has shown great resilience and, despite the challenges this pandemic has wrought, we continue to provide frontline healthcare that for many can be life-changing and sight-saving.

Specsavers is passionate



about ensuring that no one needlessly loses their sight. We are doing all we can in these very difficult times to reach the people most at risk with crucial health messages. That's why we are playing a leading role in National Eye Health Week to convey to millions of people that a regular eye test can help save your sight.

But there is so much more still to do. There are even bigger challenges ahead as, from the millions of people who missed appointments, greater numbers will present in community optometry and ophthalmology with more serious and more advanced vision problems that will have a huge impact on our health service and on the economy.

Changes we implement now will help secure the long-term sustainability of patient-centred care. The

optometry profession has an unprecedented opportunity to make a positive difference by working together with the ten thousand highly skilled opticians in the UK to integrate fully with GPs and with ophthalmology to reduce preventable sight loss and its impact and so help reduce the pressure on an already over-burdened NHS.

A joined-up community-based approach to eye care that embraces advances in diagnostic and communications technology offers our patients a convenient, more accessible service that will improve efficiencies and clinical outcomes all round.

Community optometry is ready to take on this challenge with energy, confidence and commitment, with highly skilled and technologically-enabled clinicians saving sight and changing lives for the better. Our patients inspire us to do even more. We are feeling positive about the future – together.

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

# Method

Full methodology and sources used to estimate the prevalence of sight loss and blindness can be found in 'The economic impact of coronavirus (COVID-19) on sight loss and blindness in the UK[1].'

Prevalence rates by age, sex and eye condition were applied to 2018 population data, the latest available. Population projections were used to estimate prevalence for 2019 to 2022[36].

## Estimating cost components

The research uses previously estimated unit costs of sight loss and blindness in the UK[37,38], updated for inflation and demographic changes. Costs related to the healthcare system were re-estimated using NHS data[39] to account for likely changes in utilisation of anti-VEGF treatments and cataract surgery. Activity data and unit costs for elective surgery, inpatient hospitalisations, outpatient services and anti-VEGF treatments were available for England. Due to data limitations, the percentage growth in England's health

system costs compared to 2013 was applied to each of Northern Ireland, Scotland and Wales, with the assumption that changes to health system utilisation have been broadly consistent across the UK.

## Quantifying the impact of coronavirus (COVID-19)

The impact of lockdowns and decreased service utilisation in 2020 will result in a decrease in total cost for eye care that year. There will be an increased demand for services in subsequent years, primarily driven by the backlog of procedures. This will attribute additional costs to the healthcare system.

Patients who miss treatment or receive delayed treatment may experience some impact to their vision health. Data from Specsavers UK database on referrals (stratified by level of urgency) from optometrists to hospital eye services was used to estimate the number of patients who did not receive an eye test and the decrease in referrals. It was assumed that cases which otherwise would

have been an urgent referral from optometry may have been at risk of permanent sight loss from their condition.

For patients who either cancelled an appointment with their ophthalmologist or had their appointment cancelled, it was assumed that there is a level of risk of progressing to sight loss due to delayed treatment. Evidence from literature was used to inform the risk of progression given treatment compared to no treatment for the period of the delay for anti-VEGF injections. For glaucoma treatment, it was assumed that each patient is at risk of progression immediately as a result of the cancelled procedures.

The cost of delayed eyecare as patients wait for their procedure is calculated by applying the additional days with disease (additional wait time), with the daily cost, to each cost category (healthcare system, productivity losses, informal carer costs, loss of wellbeing, efficiency losses and other costs).

The change in costs attributed to cataract during the pandemic is driven by the >

change in wait time for surgery. NHS data[40] was used to estimate the number of missed cataract surgeries from March to December 2020. This was used to estimate the additional number of people waiting for cataract surgery. The wait time pre-COVID-19 (before March 2020) is compared to the average wait time by December 2020. The additional wait time in the December 2020 period was multiplied by the average daily costs. The daily costs of waiting for surgery include

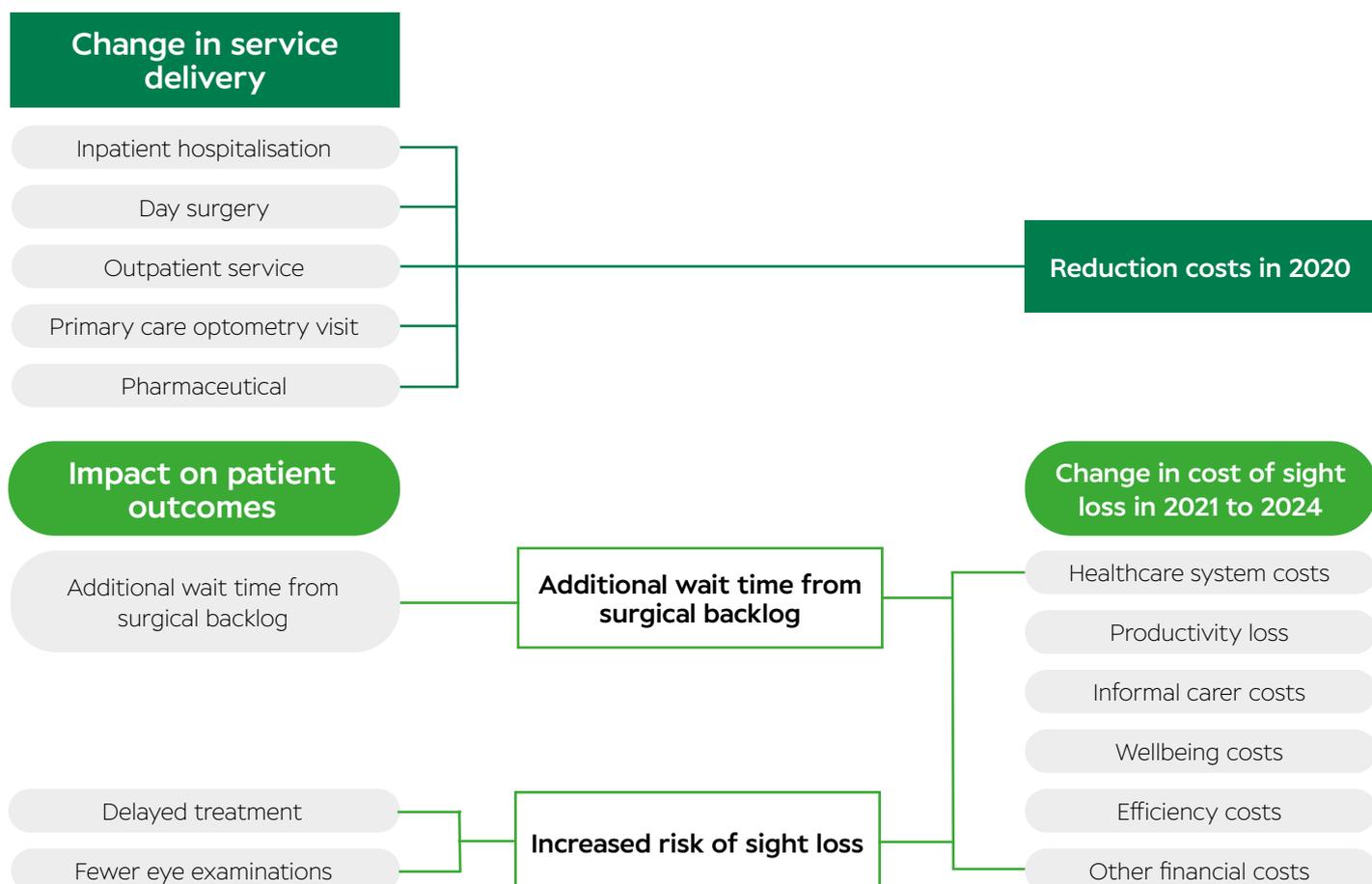
costs due to increased risk of falls and the decrease in quality of life due to worse outcomes. A similar approach is applied to other hospital ophthalmic procedures delayed due to the pandemic.

NHS Data on the change in wait times for hospital ophthalmic procedures[41] and data on the changes in primary care optometry services were obtained[42].

Advice from ophthalmologists and optometrists throughout

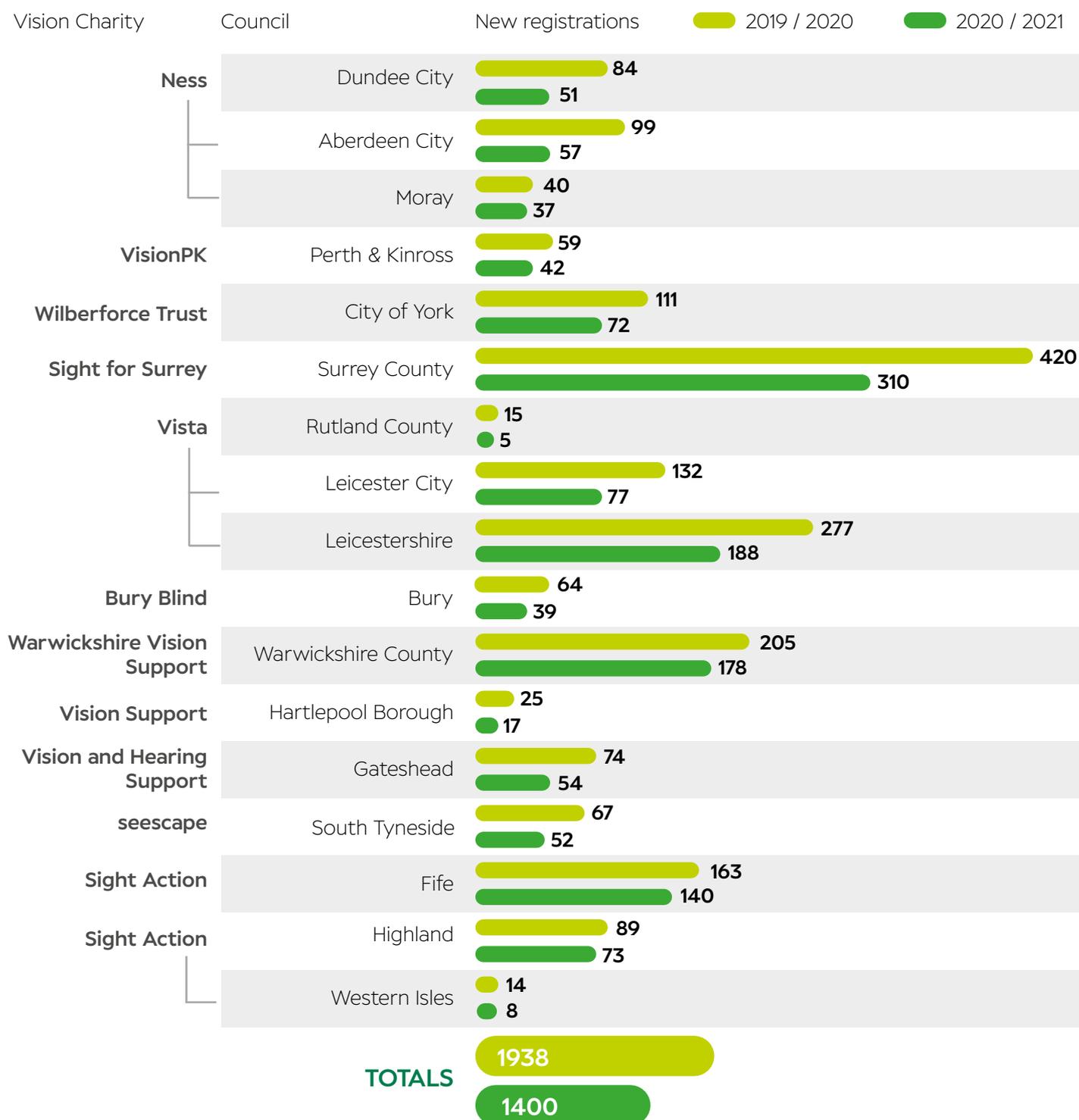
the UK informed some assumptions used in the modelling pathway for the impact of coronavirus (COVID-19) on the healthcare system and patient outcomes. Freedom of Information (FOI) data requests were submitted to several NHS trusts and health boards throughout the UK to gather information on the impact of coronavirus (COVID-19) and lockdowns on their ophthalmological services. FOI data was used to support trends observed in service activity.

### Modelling pathway for the impact of coronavirus (COVID-19) on the healthcare system and patient outcomes



Data on certification of vision impairment and registration were provided by local vision charities. Galloway’s reported certifications supported by their Eye Clinic Liaison Officer in one large teaching hospital decreased from 175 in the period 1 April 2019 to 31 March 2020 to 88 in April 2020 to 31 March 2021.

### New registrations following certification of vision impairment



# Life-changing community optometry

Specsavers has been committed to eye health ever since Doug and Dame Mary Perkins set up their first community practice in 1967. Now the whole family is involved. Little did we know how important these family values and shared foundation would be as we provided services to patients and kept our staff safe during the pandemic.

In community optometry we see first hand how distressing sight problems can be and how easily people can become isolated. That's why our teams made heroic efforts to reach out to so many patients. We are proud that by caring for people in our communities we made it easier for NHS key workers to concentrate on caring for patients in hospital.



**Specsavers** in Runcorn raised £3,000 for a local food charity, helping to provide Christmas dinner for 800 people.



**Jamie Pullen**, director at Specsavers in Barry, repairing broken glasses outside the home of 14-year-old Bex, who was shielding with her family.

**Andy Britton**, store director at Specsavers Haverfordwest, volunteered at a vaccination centre.



**Grant Welsh**, store director at Specsavers in Bondgate, made almost 3,000 glasses for key workers during lockdown two.



**Nurse Sarah Banks,** was burgled. Specsavers and the local community rallied to replace stolen items, including stolen spectacles.



**Specsavers team** in Edinburgh make a 4-hour round trip to the Highlands to replace glasses lost during a paddle boarding staycation.



**Riz Choonara,** director at Specsavers Stroud, cycles to deliver eye drops to an isolating patient.



**Hospital staff** receive hampers from members of Castle Hume Golf Club, supported by Specsavers Enniskillen.



**Coleraine hospital** worker, Julie, broke her glasses mid-pandemic. Her local Specsavers community practice sorted out new glasses within 45 minutes, free of charge as a thank you to local key workers.

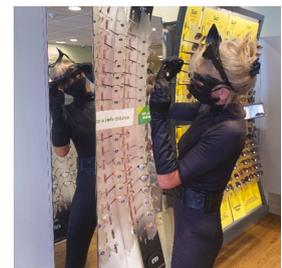


**Katy Andrews,** director at Specsavers Marlborough, hand delivered contact lenses to a soldier about to be deployed to help enforce the first lockdown.

**Lynn Johnson,** manager at Specsavers Saltcoats came to the rescue of local church minister, Reverend Don Currie, who had broken his glasses on the morning he was due to officiate a wedding.



**Cat Woman** visits her community optometrist because even superheroes need their eyes tested! Specsavers is supporting Kent Association for the Blind to share eye health messages.



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State of the UK's Eye Health 2021 provides new evidence on the impact of coronavirus (COVID-19) on eye health throughout the UK. This report shines a light on the scale of the challenge and urges the entire eye care sector to work together so patients are treated at the right time, in the right place, by the right professional. We hope it encourages even more innovation and change to help secure the long-term sustainability of patient-centred care.

This report is available to download from:  
[www.specsavers.co.uk/eye-health/state-of-the-uks-eye-health-2021](http://www.specsavers.co.uk/eye-health/state-of-the-uks-eye-health-2021)