Cyflwynwyd yr ymateb i ymgynghoriad y Pwyllgor Iechyd a Gofal Cymdeithasol ar Gwasanaethau offthalmoleg yng Nghymru

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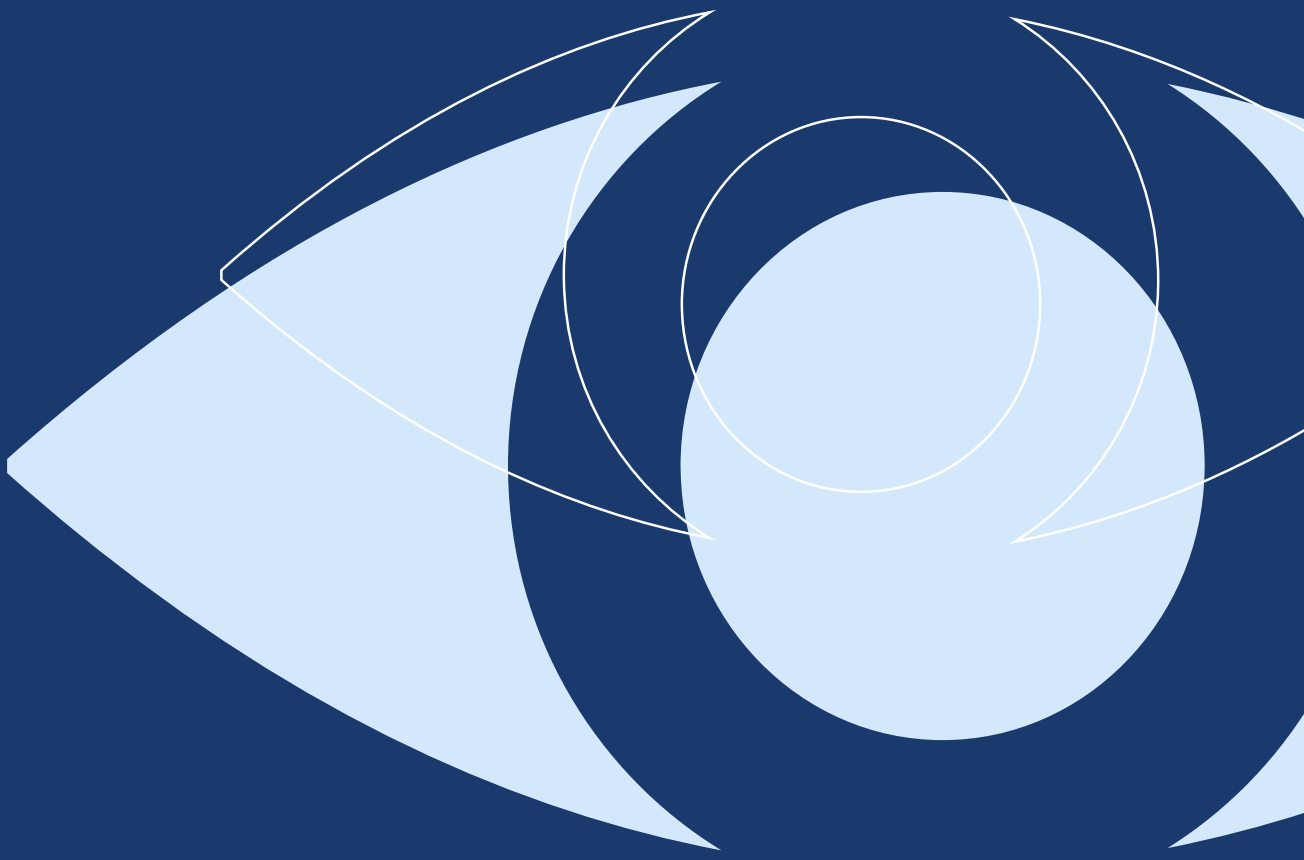
INDUSTRY VISION GROUP

This report has been initiated and funded by the Industry Vision Group – a cross industry forum of pharmaceutical and medical technology companies comprising AbbVie, Apellis, Bayer, Glaukos, Janssen, Roche and Santen. Support has been provided by M+F Health Communications.

Unlocking innovation in the future ophthalmology landscape

A report from the Industry Vision Group

May 2024



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Tori Griffiths:

Industry Vision Group Chair and Public Affairs Partner, Roche

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Sight loss has a considerable and growing impact across the UK, with over 2 million people affected every year, and costing £25.2 billion to the wider economy. And yet, over half of this sight loss in the UK is avoidable,[1,3] and we have many of the tools available to us already that can prevent these cases from occurring.[3] It is against this backdrop that the Industry Vision Group has come together to form an alliance of pharmaceutical and medical devices companies that recognises the central role industry can play in tackling avoidable and inherited causes of sight loss, and the role that existing treatments and emerging technologies can play in these efforts.

With a proven track record in demonstrating how new technologies and approaches to care can benefit services and service users, the ophthalmology sector in the UK now has the opportunity to be a truly world-leading example of how best practice approaches to innovation can be scaled-up and implemented more widely and consistently across the system as a whole. To achieve this, and to help meet the challenges that will come with the increasing prevalence of eye health conditions over the coming decades, a new National Strategy for Eye Health is now urgently needed, setting out the steps that can enable the NHS to be the best place for the care and treatment of people living with these conditions.

The Industry Vision Group hope that this report, which has been developed in consultation with leading clinical experts and patient voices from across the eye health community, can offer practical recommendations that can contribute to a new strategy, with the ultimate goal of better outcomes for people at risk of or living with sight loss.

Introduction

APPROXIMATELY **2** MILLION PEOPLE LIVING WITH EYE HEALTH CONDITION IN THE UK[1]

OVER **6%** OF ALL NHS SURGERIES IN ENGLAND ARE FOR OPHTHALMOLOGY[2]

RESULTING IN **7.5** MILLION OUTPATIENT APPOINTMENTS IN ENGLAND ALONE[2]

£25.2 BILLION IS SPENT EVERY YEAR IN UK ON POOR EYE HEALTH[3]

Approximately 2 million people are currently living with an eye health condition in the UK that can lead to sight loss.[1] As a result, ophthalmology is one of the busiest specialties across the NHS, accounting for 6% of all NHS surgeries and 7.5 million outpatient appointments in England alone.[2] In total, service delivery and care needs associated with poor eye health costs the UK economy around £25.2 billion per year – the majority of which lies outside of health and social care, such as informal care, productivity losses and quality of life impacts.[3]

These figures are only set to increase over the coming years, largely as a result of the effects of the UK's ageing population. Recent estimates suggest that around 2.7 million people will be living with sight loss by 2030, increasing to 4 million by 2050, a rise of almost 50%.[4] By extension, the economic burden of sight loss is expected to increase to £29.9 billion by 2030 and £33.5 billion a year by 2050.[5]

Against a wider backdrop of capacity constraints and financial pressures, adequately managing the predicted increase in eye health conditions will require a combination of better preventative action, timely diagnosis and effective condition management, as well as faster adoption of innovations in care and treatment. Adopting these solutions is a necessity if we are to reduce the burden of avoidable sight loss on patients, the NHS and wider society.

The Industry Vision Group has therefore developed this report to help set out the opportunities that exist to improve uptake of potentially transformative novel care innovations and new treatment paradigms in the coming years. The report has been developed in consultation with experts from across the ophthalmology community and highlights examples of best practice that offer practical solutions to overcoming existing pressures and supporting the best possible outcomes for patients. These recommendations are intended to inform development of a new National Strategy for Eye Health in England, however insights and considerations are applicable across the UK.

Acknowledgements

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- **Phil Ambler:** England Country Director, Royal National Institute for Blind People
- **Dr Peter Bloomfield:** Director of Research, Macular Society
- **Matthew Carr:** Strategy Lead – Campaigns, Influence and Policy, Retina UK
- **Joanne Creighton:** Chief Executive, Glaucoma UK
- **Dr Madina Kara:** Director of Research and Innovation, Fight for Sight
- **Jordan Marshall:** Policy Manager, Royal College of Ophthalmologists
- **Craig Murray:** Chair, British and Irish Orthoptic Society
- **Dr Robert Petrarca:** Consultant Ophthalmologist, Epsom and St Helier University Hospitals NHS Foundation Trust
- **Dr Rhianon Reynolds:** Welsh Clinical Lead for Ophthalmology and Llywydd, Royal College of Ophthalmologists Wales
- **Dr Waqaar Shah:** GP Partner and Primary Care Clinical Director for Ophthalmology, NHS London
- **Liz Tomlin:** Head Orthoptist, Guy's and St Thomas' NHS Foundation Trust
- **Rebecca Turner:** Ophthalmology Nurse, Oxford Eye Hospital

What is the Industry Vision Group?

The Industry Vision Group (IVG) is a cross-industry forum of pharmaceutical and medical technology companies with expertise and an interest in eye health, working towards a shared ambition of preventing avoidable blindness in the UK. We have set ourselves this ambitious goal, as we believe that by working together with the ophthalmology community, we can make this a reality through improved access to ophthalmology services, care and treatment.

Our membership currently comprises representation from **AbbVie**, **Apellis**, **Bayer**, **Janssen**, **Glaukos**, **Roche** and **Santen**.

The IVG is committed to increasing the prioritisation of eye health among Government, NHS leaders, policymakers and commissioners at both a national and local level. We recognise our collective responsibility to act as a constructive and collaborative partner, working closely with others in the system to successfully meet the challenges associated with the projected increase in the prevalence and impact of eye health conditions in the coming years. We also endeavour to drive innovation in the health system, deliver efficiencies and improvements in ophthalmology services that benefit both patients and the NHS, and demonstrate the value of industry in transforming patient outcomes both now and in the future.

We believe the strength of our membership makes us well placed to work with stakeholders from across the ophthalmology community.

The Industry Vision Group (IVG) members:

abbvie

Apellis

BAYER

GLAUKOS
TRANSFORMING VISION

janssen

Roche

Santen
Imagine Your Happiness

Sight loss and eye health in the UK

Sight loss has a significant impact on individuals, health systems and the wider economy in the UK, with around 2 million people in the UK living with a condition that can lead to blindness.[6] Prevalence of sight loss is also predicted to increase significantly over the coming years due to the effects of an ageing population and impacts of the COVID-19 pandemic on NHS waiting lists, with ophthalmology already being the busiest outpatient specialty in the NHS.[7] Without preventative action and equitable access to timely care and treatment, it is anticipated that around 2.7 million people will be living with sight loss by 2030, increasing to 4 million by 2050.[8]

250
PEOPLE LOSE THEIR SIGHT EVERYDAY

Every day, around 250 people in the UK start to lose their sight.[9]

60%
WITH SIGHT LOSS ARE WOMEN

Around 60% of people living with sight loss are women, and certain groups are also at a greater risk of developing some of the leading causes of sight loss.

BLACK AFRICAN AND CARIBBEAN PEOPLE ARE AT GREATER RISK

Black African and Caribbean people are at four to eight times greater risk of developing certain forms of glaucoma, and at a greater risk of diabetic eye disease. [10,11]

3x
GREATER IN SOUTH ASIAN PEOPLE

The risk of diabetic eye disease is approximately three times greater in South Asian people.[12]

4in10
SYMPTOMS OF CLINICAL DEPRESSION

More than four in 10 people attending low vision clinics are suffering from symptoms of clinical depression.[13] However, only 17% of blind and partially sighted people who experienced sight loss as adults have been offered counselling or emotional support.[14]

1in5
REFERRED TO EMOTIONAL SUPPORT SERVICES

Blind and partially sighted people are more than twice as likely to experience difficulties with unhappiness or depression compared to the UK average, yet only one in five people losing their sight are referred to emotional support services.[18]

EXCLUSION FROM THE WORKPLACE COSTS THE UK UP TO
£7.4b

Around 84% of this is due to lost productivity, the provision of informal care from friends and family and quality of life impacts.[16] Despite disability legislation, exclusion from the workplace is costing the UK economy up to £7.4 billion.[17]

SIGHT LOSS COSTS THE UK
£25.2
BILLION A YEAR

Sight loss currently costs the UK economy £25.2 billion a year, however, Fight for Sight estimate that this cost will rise to £29.9 billion by 2030 and £33.5 billion a year by 2050.[15]

The COVID-19 pandemic has had a significant impact on access to eye care services.

500,000
OPERATIONS A YEAR

Ophthalmology is one the busiest specialties in the NHS in England, carrying out over 500,000 operations every year – accounting for 6% of all NHS surgeries – as well as 7.5 million outpatient appointments.[19] By 2030, this activity level is projected to rise to 9 million.[20]

76%
OF EYE UNITS DO NOT HAVE ENOUGH CONSULTANTS'

This has been exacerbated by ongoing workforce and capacity challenges across the NHS, with the Royal College of Ophthalmologists' 2022 workforce census indicating that over 76% of NHS eye units do not have enough consultants to meet current patient demand.[21]

645,695
PEOPLE WAITING FOR EYE APPOINTMENTS

These shortages are having a significant impact on patients. As of June 2023, 645,695 people are waiting to start ophthalmology treatment, with 20,836 having already waited more than a year. This means that 8.5% of the total number of patients awaiting specialist treatment across the NHS are waiting for ophthalmology treatment.[22]

The current ophthalmology treatment and access environment

Advances in the treatment of eye health conditions in recent decades have led to a significant reduction in avoidable blindness across the UK. The emergence of promising new treatment options demonstrates continued innovation in ophthalmology that can support in preserving and potentially restoring vision. Together with existing treatments and the provision of effective holistic care and support, there are significant opportunities to address the growing burden of eye health conditions on individuals, the health system and wider society.

Indeed, ophthalmology has the potential to act as a blueprint for other sectors in the uptake of innovative treatments and technologies, having been an early adopter of innovative diagnostics such as AI – much of which was originally tested in retinopathy.[23] The UK has similarly been at the forefront of ophthalmology innovation owing to its leading academic and clinical research institutions, with ophthalmology being a research area of rapid growth that recruits around 10,000 to 15,000 patients to research trials each year.[24] The Royal College of Ophthalmologists has therefore rightly noted that "*the ability to deliver the service in the face of increasing workforce and capacity restraints makes innovation in our specialty a necessity*".[25] Innovation therefore can represent a key avenue through which to unlock additional capacity in an already constrained service.

Contributors to this report highlighted, however, that where ophthalmology potentially struggles in comparison to other disease areas, is in the ability to track the patient journey throughout the whole care pathway. This challenge starts right at the beginning of the pathway, with patients likely to present at a variety of different settings, such as in private high street optometrists, their GP, or in hospital. These settings are not necessarily set up to effectively share information between them, which has a knock-on effect on overall care coordination, the quality of data that is collected on patient activity, and subsequent ability to test and implement innovation where appropriate. The quality of data collection is a particular issue in the context of ophthalmology, with information on individual patients not always being shared effectively, and challenges emerging when it comes to the more centralised recording of data.[26] This then affects the quality of decision-making for both individual treatment options and wider commissioning strategies.

Fostering a culture of research and innovation within the eye care sector is vital to not only promote the development of novel treatments and methodologies, but also ensure their rapid adoption into a standard care framework. It is equally important to have a strategy in place that can support wider uptake of these innovative treatments, to help ensure that as many people as possible are able to benefit from them.

In the context of hundreds losing their eyesight or having it irreparably damaged every year due to the ongoing effects of NHS backlogs, it is imperative to consider the role of existing technologies and system preparedness for the future treatment landscape in improving outcomes both now and in the future.[27]

To support the uptake of existing technologies and system preparedness for the future treatment landscape, the following key challenges in the access and uptake environment require consideration. Addressing these challenges can, in turn support, the UK's ambitions to become a world-leader in the adoption, implementation and uptake of innovation and help to maintain investment from the global life sciences sector.

"The ophthalmology environment is more amenable to innovation and technological advances than almost any other speciality."

Dr Waqaar Shah, Clinical Director for Primary Care Ophthalmology, NHS London

"The potential of improved data collection, particularly OCT imaging, for the eye care innovation pathway is huge, particularly if we can start to track patients in a longitudinal way right from the beginning of their care journey on the high street."

Dr Madina Kara, Director of Research and Innovation, Fight for Sight

The overarching UK commercial environment

The UK Government has set out ambitious targets for the UK to become a life sciences superpower post-Brexit and a world leader in the development, testing, access and uptake of new and innovative treatments and technologies.[28] However, there are ongoing challenges in the UK commercial environment which are impacting the availability of new treatment options. For example, while the total NHS budget rose to 8% of GDP in 2023/24 to support efforts to clear the COVID-19 backlog, branded medicines spend has simultaneously declined by 12% in real terms in the past five years, despite the role of treatment in ensuring effective management of NHS patients.[29,30]

Meanwhile, the current Voluntary Scheme for Branded Medicines Pricing and Access (VPAS) is placing significant pressure on pharmaceutical companies, with the rebate payment increasing nearly five-fold in the past two years, from 15% in 2022 to 26.5% in 2023, a substantial increase on the average rate of 6.88% in the eight years prior to the pandemic.[31] The new scheme that is due to come into effect in 2024 subsequently represents an important opportunity to support inward investment from global companies and help realise the Government's ambition for the UK to become a global life sciences hub.

Broader challenges, such as reimbursement timelines and the speed at which new treatment options are approved for patients also impact the availability and uptake of innovative treatment options across a range of conditions. For example, the Government's own life sciences indicators for 2023 show that patients in the UK wait longer for new treatment options compared to many other comparable countries. Between 2017 and 2021, the median length of time for medicines that were approved between 2018 and 2021 to reach patients was 297 days in England.[31] Uptake of new medicines in the UK similarly remains lower than the average of competitors between one year after launch through to five years after launch.[31] One year after launch, the uptake ratio in the UK was 0.74 – meaning average uptake was only around three-quarters of the average uptake of comparators.[32]

The latest Waiting to Access Innovative Therapies (WAIT) data for 2022 from the European Federation of Pharmaceutical Industries and Associations (EFPIA) similarly shows that England ranks seventh out of 37 countries in terms of the number of treatments licensed by the European Medicines Agency (EMA) and available to patients (for medicines licensed between 2018 and 2021). Of these, 36% of medicines are "*fully available*" (in line with the licensed patient population), while 30% are available to a restricted subset of patients and 34% are not available.[33]

As highlighted within recent research, the UK is currently missing out on a range of potentially transformative benefits that would come with wider adoption of innovative medicines across the health system. Economically, it is estimated that £17.9 billion of additional productivity gains could be achieved if treatment uptake was at optimal levels for just four medicine classes (coagulation, type 2 diabetes, severe asthma, and autosomal dominant polycystic kidney disease) across the UK.[34] Innovative medicines can also help to reduce the burden of care, through reducing onward service needs and enabling the introduction of streamlined pathways and smarter ways of working. Recommendations from a wide range of key stakeholders working across the health system have set out opportunities for improving the wider medicines access environment, and it is imperative that these are adopted by decision-makers if the NHS is able to realise the ambition of becoming a world-leading, prevention-focused health system. Despite this, eye health conditions remain notably absent from Government policy, including the latest Major Conditions Strategy Strategic Framework, published in August 2023.[35]

Ophthalmology research and clinical trial activity in the NHS

Upcoming innovations in the treatment of eye health conditions demonstrate the value of novel treatment options in addressing the burden of sight loss, however a clear Government strategy is needed regarding funding for ophthalmology research in order to improve the broader research and clinical trial environment. This investment is vital for supporting better understanding of sight loss, exploring the next generation of diagnostics, and discovering the innovative treatments of the future.

Contributors to this report highlighted that research in ophthalmology is centred around several centres of excellence. While the work of these current centres of excellence is to be applauded, it is important to ensure that patients across the UK have access to appropriate expertise in their region, in order to avoid unwarranted variation in treatment access and outcomes.

This concentration of research in centres of excellence is also heightened by the wider pressures on ophthalmology services which means that many clinicians in other areas simply don't have the capacity to meaningfully engage in research activity. Report contributors have highlighted how many enthusiastic and potentially willing individuals are being deterred from taking part due to this pressure and the limited research capability of their hospital or region.

"A particular issue we see in Wales is that clinical trials often take place in proven delivery units, making it challenging for other units to participate in trial activity. This not only impacts patient access to trial-based treatments for those living further away from trial centres – but also impacts on workforce recruitment and retention across Wales."

Dr Rhianon Reynolds: Welsh Clinical Lead for Ophthalmology and Llywydd, Royal College of Ophthalmologists Wales

From a clinical trial perspective, capacity challenges and delays within the Medicines and Healthcare products Regulatory Agency (MHRA) are similarly presenting barriers to the adoption of treatments in the UK. For example, the MHRA's performance metrics highlighted that in May 2023, the average times for MHRA assessments of clinical trial applications were 125.58 and 22.58 days respectively for phase 1 – 4 patient trials.[36] This remains above the statutory timelines set out by the MHRA for application review, which is 30 days in general, with a maximum 10 calendar days for a decision to be granted once the regulator has received any final information.[37]

This is having a direct impact on trial activity in the UK, with stakeholders involved in the development of this report highlighting examples of academic-led global clinical trials that may not be offered to UK patients due to the ongoing delays with the MHRA.

"The biggest gap at the moment is that national research and development policy has rarely included a focus on ophthalmology, which is having an impact on the funding available and limiting our infrastructure for adopting novel treatment options. We also need to have better pathway entry for new treatments. This would enable better access to innovations coming through, supported by a strong underpinning of basic research."

Dr Peter Bloomfield: Director of Research, Macular Society

"Research into rare and inherited retinal disease is currently underfunded. While we support the increasing focus on prevention in ophthalmology, it is important not to forget that some eye health conditions are not preventable and new treatment options are therefore vital."

Matthew Carr: Strategic Lead – Campaigns, Influence and Policy, Retina UK

Workforce agility and increasing competencies in the community

To address ongoing workforce shortages, there is an urgent need for increased training among the ophthalmology workforce to treat retinal conditions and broaden the role to encompass new conditions and improve access to meet growing demand on services. To support this, Roche partnered with Moorfields Eye Hospital (MEH) NHS Foundation Trust to review and localise recommendations made by the Royal College of Ophthalmologists as part of its Ophthalmic Practitioner Training Programme.

The project has involved development of a 12-month educational course for the Moorfields Medical Retina nursing teams, with an initial focus on virtual patient assessments, clinical audits, and patient communication and consenting. The aim of this project is to offer training to the Medical Retina nursing teams allowing them to get involved in the end-to-end patient pathway and relieve pressure on colleagues within the MDT.

Learnings have initiated and furthered conversations around upskilling Allied Health Care Professionals and Health Care Assistants, particularly with eye care waiting lists as long as they currently are, with Roche now looking to develop further CPD-approved courses run locally in the UK for AHCPs nationally throughout 2024.

Service capacity and workforce shortages

The Royal College of Ophthalmologists' workforce census has repeatedly demonstrated current gaps in the recruitment and planning within the ophthalmology workforce, with the College noting in 2019 that there is *"a severe shortage of ophthalmologists and clinical space to cope with continuing increase in demand, caused by an ageing population"* and the impact of *"welcome new treatments for previously untreatable conditions"*.[38] The more recent 2022 workforce census confirmed these challenges, including the extent of outpatient treatment backlogs which at the time (September 2022) saw 656,814 people waiting for consultant-led ophthalmology treatment.[39] This is a significant concern for ophthalmology given its status as the busiest outpatient specialty in the NHS, and is having a direct impact on patient access to existing and new treatment options due to extensive backlogs and impact on workforce capacity to prescribe and facilitate regular monitoring and follow up.

Ensuring patients have access to innovative treatment options is vital in helping to address the backlog, further increasing the importance of improving ophthalmology workforce capacity and the need to consider where further collaboration can be established between clinical teams, allied-healthcare professionals - such as orthoptists – and clinical support teams, all of which play a central role in delivering effective and efficient eye care services.

More broadly, it will be vital to address current workforce shortages across secondary care – including ophthalmology departments – to ensure that patients have access to specialist input as needed to help prevent disease progression and avoidable sight loss. While the NHS Long Term Workforce plan has set out welcome commitments to increase the size of the NHS workforce by 300,000 by 2028 – including 60,000 doctors, 170,000 nurses and 71,000 other healthcare professionals – further clarity is needed setting out specific plans for ophthalmology, alongside plans for upskilling multi-disciplinary teams and establishing clear progression strategies for both primary and secondary care sectors.[40] In particular, specific consideration is needed around how implementation of workforce plans will seek to address eye health inequalities and variations in care in ophthalmology, particularly where shortages are acute in smaller district hospitals, many of which are situated in rural or coastal towns with a higher proportion of elderly patients.

"Demand for eye care services is at an all-time high and is set to increase in the years ahead, so we need to look at how these services are provided to address this. Delays to treatment for certain eye conditions can have life changing and irreversible consequences. Wet age-related macular degeneration is one such condition, where patients can experience rapid and sometimes complete central vision loss within a few weeks if left untreated."

Phil Ambler: England Country Director, National Royal Institute for Blind People

"We have a huge diagnostic backlog in ophthalmology and Community Diagnostic Centres could have the potential to make a valuable contribution to ophthalmology services. However, we need greater clarity around how ophthalmology incorporated into these initiatives."

Dr Peter Bloomfield: Director of Research, Macular Society

"We need to make sure we're future proofing the ophthalmology workforce through collaborative working across multidisciplinary teams and regions – for example in primary care clusters - to ensure we're able to meet treatment needs and able to deliver across a diverse set of geographies."

Dr Rhianon Reynolds: Welsh Clinical Lead for Ophthalmology and Llywydd, Royal College of Ophthalmologists Wales

The role of primary care and independent sector capacity

While ongoing challenges cannot be solved solely through efficiencies and different ways of working alone, a range of pilot primary care initiatives show the potential for community-based approaches to increase capacity and lead to faster diagnosis. In particular, optometrists play an integral role as first-contact NHS care providers for the assessment and management of minor eye conditions and eye disease, as well the management of some post-operative care. There is therefore an opportunity to intervene at the earliest stage with advice, support and signposting to services.

As such, it is important that comprehensive information and advice is provided during initial appointments to ensure patients are informed about suspected diagnoses and likely treatment options, and that optometry capacity is sufficient to provide this information. By ensuring full utilisation of these resources, limited secondary care capacity can be reserved for patients with escalated conditions requiring specialist input and treatment.

The IVG are therefore supportive of the recommendations from the Association of Optometrists that the optometry profession should have a greater role in prescribing of certain medicines when it is clinically safe to do so. This includes having a wider list of entry level medicines available to all optometrists, through general exemptions, as well as support for optometrists to obtain higher qualifications such as the Independent Prescriber qualification, so they can support with the management of more complex conditions in the community. Support for prescribing optometrists should include a formulary to follow with clear guidance, and adequate access to prescribing pads to ensure the patient does not have to make a further trip to their GP to obtain a prescription. Alongside this, optometrists should have better access to clinical placements in hospitals in order to widen their scope of practice.

Allied-health professionals including orthoptists also have a vital role to play and detecting eye health problems. Greater parity however is needed in prescribing rights – alongside increased delivery of training in relevant competencies - to ensure orthoptists can maximise their impact, particularly those working in advanced roles in ophthalmology.

It is important to also recognise that some patients may require consultant-based care in ophthalmology units in hospital for both their diagnosis and treatment. Ensuring a smooth transition and effective ongoing management between primary and secondary care is therefore crucial for these patients. As such, to support effective and appropriate referral of patients from optometry to hospital ophthalmology services, it is vital that data sharing infrastructure is in place – for example to share OCT scans – alongside the required contracting and incentives to ensure referrals are made at the right time for patients, increasing the likelihood of preventing avoidable sight loss.

The independent sector similarly provides critical support for high-volume ophthalmology activity such as cataract surgery, currently undertaking around half of all NHS-funded procedures.[41] Utilising this capacity presents further opportunity to manage demand for eye health services.

To ensure sustainable utilisation of independent sector capacity, the Royal College of Ophthalmologists has called for a strategic approach to surgical training to ensure NHS trainees are able to meet training requirements in light of an increasing number of surgeries being performed by the independent sector. Consideration of contracting and funding mechanisms in place is also needed, as well as clear pathways for the management of potential complications and corrective treatment, to ensure that variations in waiting times and the types of care provided is addressed. At present, there are significant differences in the type of case complexity accepted by the independent sector, therefore warranting a more strategic approach that it centrally regulated and monitored. [42]

Case Study

Condition: Glaucoma

Intervention: Combined cataract and glaucoma surgery

Summary: Glaucoma is a leading cause of blindness and visual impairment in the UK. It is a condition that requires ongoing treatment and management to preserve vision, however, the increasing number of people living with the condition means that innovative ways of working are required in order to manage demand. One such opportunity is the introduction of combined surgeries that incorporate eye stents into the cataract surgery pathway, for the sizeable minority of cataract patients that are co-morbid with glaucoma.

The intervention can facilitate earlier intervention in glaucoma and similarly offers an opportunity to improve patient experience by reducing the need for multiple surgeries and medications, with studies indicating that patients have better control of their intraocular pressure and require fewer medications than those who undergo cataract surgery alone. This is also important for patients who remain reliant on maintenance therapies for their glaucoma, such as topical eye drops, where non-compliance can contribute to glaucoma progression.

Despite the benefits that can be realised from this intervention, there remains significant variation in patient access to combined procedures. For example, patients that receive cataract surgery in independent sector treatment centres (ISTCs) are less likely to be offered the surgery than those that receive surgery on the NHS, owing to differences in business models and contracting processes.

"In order for workforce reform to be truly effective, we need to ensure greater parity between professions – particularly on prescribing rights - to enable more collaborative working across the service and ultimately improve access to and uptake of innovation and care for patients."

Craig Murray: Chair, British and Irish Orthoptic Society

The role of Eye Clinic Liaison Officers[43]

Across multiple sight loss conditions there are notable gaps in support for patients and their families that enable patients to live well with their condition, particularly following diagnosis and during waiting periods. Eye Clinic Liaison Officers (ECLO) offer a range of services for patients within ophthalmology clinics and are a key example of best practice service delivery that can support in addressing these gaps.

However, ECLOs are not universally embedded within NHS eye care services, despite offering patients important opportunities to discuss their condition, have their treatment options explained and be signposted to additional support. This is particularly important in ensuring patients have access to practical and emotional support through better understanding of the types of services available. For conditions that need treatment, understanding the importance of available treatments and their implications up-front means there are more chances of early intervention.

As such, ECLOs should be seen as a core part of any ophthalmology service and should be included within service contacts and specifications. The IVG similarly support initiatives such as the Royal National Institute of Blind People (RNIB) Eyecare Pathway Framework, which seeks to address this important issue and ensure patients are empowered to know what support they should be getting and when.

Diagnosis of rare and inherited eye health conditions

It has been estimated that between 20,000 and 35,000 people in the UK live with an inherited retinal disease (IRD), whereby sight loss is caused by a range of rare genetic conditions.[44] All IRDs are caused by gene mutations, which can result in retinal degeneration and in some cases, complete loss of vision.[45]

In early 2022, the NHS introduced whole genome sequencing for all IRD genetic testing, which in many cases will result in valuable information such as the name of the mutated gene (also known as a genetic diagnosis). With treatments being developed for specific gene mutations, this information is vital to ensure access to innovative treatment options such as cell and gene therapies, as well as to clinical trials where there are currently no approved treatment options.

With developing treatment options for IRDs including highly innovative 'one-off' gene therapies, continued consideration of how to manage uncertainty is needed in relation to the methods and processes adopted for health technology assessments (HTA) of these treatments. While the National Institute for Health and Care Excellence (NICE) introduced new methods and processes for the evaluation of health technologies in 2022, some of these changes continue to present challenges for innovative treatment options.[46] For example, the introduction of the new severity modifier – which has replaced the previous end-of-life modifier – must allow appropriate consideration of the burden of sight loss, including the broader wellbeing and societal impacts, particularly where healthcare utilisation is low due to the lack of available treatment options.

The highly specialised and personalised nature of these innovative treatment options for IRDs similarly requires appropriate reimbursement mechanisms in the NHS which effectively manage the long-term benefits of treatment. Flexible payment models are therefore needed to balance affordability, sustainability and risk between the NHS and industry, such as those proposed by the UK BioIndustry Association.[47]

The opportunity for a national eye health strategy

Ophthalmology remains the busiest outpatient specialty in the NHS, however, the sector has received little specific attention in key national health strategy documents, such as the NHS Long Term Plan or the more recent Major Conditions Strategy Framework.[48,49] Several of the proposals put forward as part of the NHS Long Term Plan have implications for ophthalmology, such as the broader focus on prevention, reducing health inequalities, unwarranted variation, and pathway redesign. Commitments within the Elective Recovery Plan are also broadly relevant to ophthalmology, particularly those which seek to make greater use of surgical hubs and community diagnostic centres, with specific reference to increasing surgical capacity in ophthalmology.[50]

Despite this, there currently remains no single, joined-up strategy that clearly sets out an ambitious vision for the future of eye health care in England, or that outlines the opportunities that exist to improve access to and uptake of innovative treatments and technologies, and the barriers that need addressing to achieve this.

The benefits of national strategies

Evidence indicates that disease-specific strategies can support improvements in outcomes and lead to wider service efficiencies. For example, research by the International Cancer Benchmarking Partnership (ICBP) has shown that consistent policymaking and investment in cancer care stems from having a specific national strategy for the condition.[51] Over a 20-year period Denmark was shown to make the biggest improvement in cancer survival rates after maintaining a cross-party consensus on the Government's approach to cancer. By contrast in the UK, the lack of consistency in cancer policy has arguably contributed to below average improvements to five-year survival rates. In the context of eye care, patients in Scotland have benefited from the Scottish Government's *See Hear* Strategy. This strategy has enabled the more seamless provision of assessment, care and support for people affected by sight loss in Scotland and helped to minimise its impact on employment, education, and leisure. [52,53]

Any national strategy for eye care would likely set out clear and helpful targets for improving outcomes, recommendations around the uptake of best practice and would ultimately provide a powerful vision for how stakeholders can best work together to transcend traditional care boundaries and the short-term recurrent crises facing the health service. This would be particularly beneficial in the context of the recent transition to ICSs, by providing systems with a clear framework for local action to improve eye care service delivery and helping to eliminate unwarranted variation.

"There is a clear need for a national eye health plan to address avoidable sight loss coherently, across all ages and sections of society, and to address the existing inequalities."

Phil Ambler: England Country Director, National Royal Institute for Blind People

"To genuinely tackle avoidable sight loss, a national eye health strategy must address the challenge of underserved audiences wherein the greatest risk of sight loss often lies. Innovation focused on community-based, mobile screening has particular potential for glaucoma, for example, but we need to know much more about the health seeking attitudes and behaviours of our target audiences in order to make a meaningful difference to equality and access."

Joanne Creighton: Chief Executive, Glaucoma UK

The development and publication of a National Eye Health Strategy could therefore provide a platform for action in response to the following challenges and opportunities in the ophthalmology sector, including:

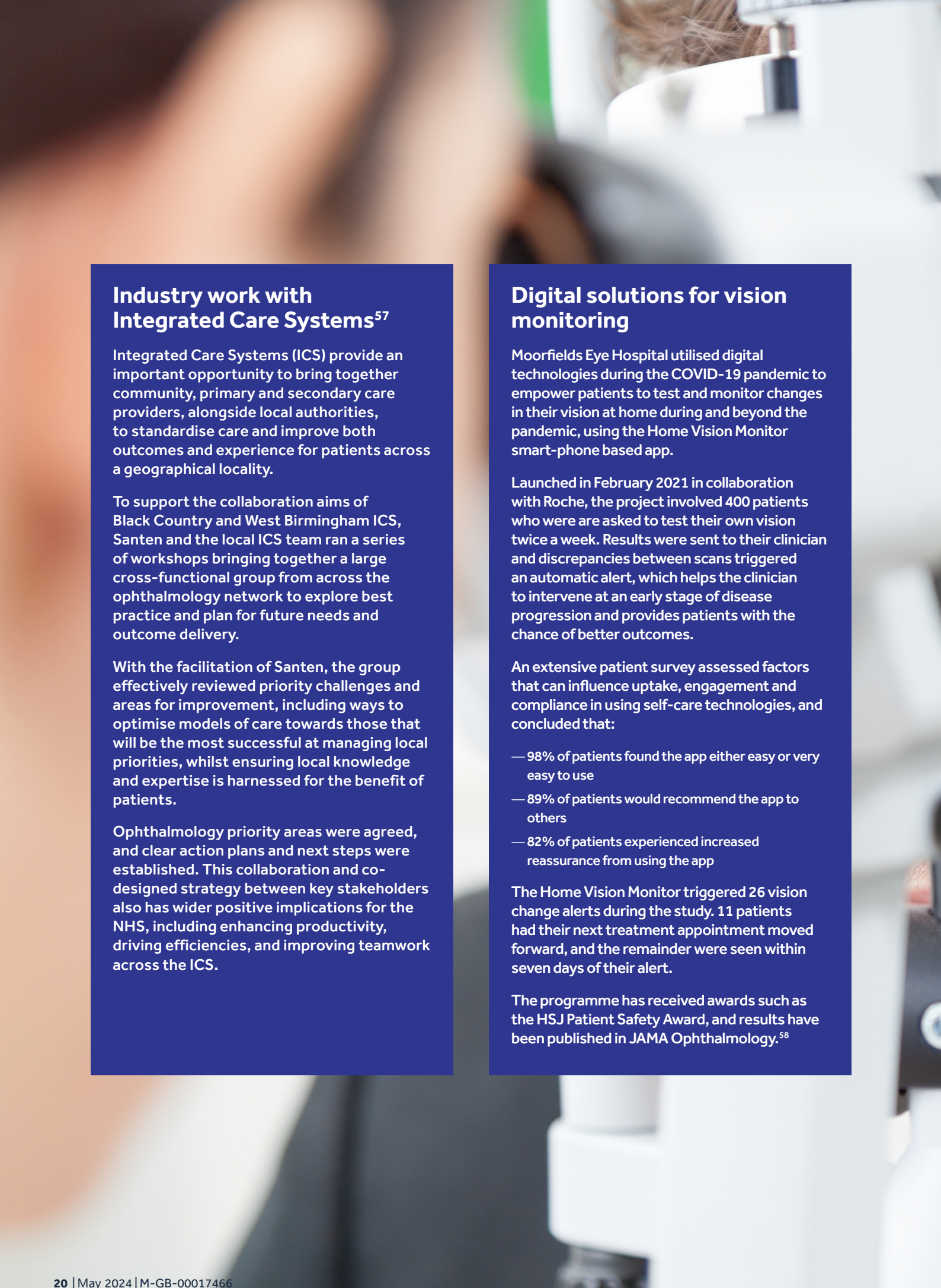
- **Increasing demand on eye health services:** The increasing prevalence of eye health conditions represents a pivotal moment for eye health services across primary and second care, which continue to manage the impact of the Covid-19 pandemic on NHS waiting lists, the growing healthcare and economic burden of eye health conditions and sight loss, and the increasing demands of an ageing population on NHS services. Over the next 20 years for example, demand for eye care services is expected to increase by 30 to 40%.[54] A long-term, strategic approach to NHS eye care delivery is therefore vital to ensure NHS preparedness for future demand, within which novel treatment and technologies are likely to play a crucial role.
- **The opportunity to build on progress made since the COVID-19 pandemic:** Despite limited prioritisation of eye health within national strategies, there have been positive developments at a national scale that provide a platform for a specific National Eye Health Strategy. This includes progress of the National Eye Care Recovery and Transformation Programme, which was established in response to the disruption from the pandemic. The programme has overseen shifts to community-based care and work to pilot telemedicine services in North Central London that can act as a single point of access for eye care triage and referral, simultaneously reducing travel requirements and thus also potentially contributing to NHS net zero ambitions. The initial roll out of this service across the AMD pathway has led to significant benefits, including reduced referral to triage times, improved accuracy of referrals and reduced travel distance for patients. A National Eye Health Strategy therefore offers an opportunity to highlight this emerging best practice taking place across the country – including how different ways of working can support in enhancing patient choice, reducing demand of primary and secondary care services, and improve data collection. Alongside the appointment of Louisa Wickham as the first ever National Clinical Director for Eye Care in August 2022,[55] a National Eye Care Strategy provides an opportunity to bring together existing initiatives into one strategic approach to transforming ophthalmology services.

Utilisation of tele-ophthalmology in Scotland and Wales

In Scotland, the General Ophthalmic Services contract provides nationally funded eye care for everyone, with eye tests available every two years. COVID-19 saw eye care services devolved from hospital to high street, and this trend has endured with Community Optometrists now providing management of some people living with glaucoma. Importantly, the larger number of (high street) touch points has enabled a greater number of eye conditions to be both diagnosed and referred, with a general move from the hospital to the high street.

Prior to the introduction of the General Ophthalmic Services contract in Scotland, only 25% of acute / emergency eye care cases were managed in the community. Now over 80% of acute eye conditions are managed by optometrists, allowing easy access to an expert community service, providing early intervention, rapid diagnosis, management and prevention of ongoing ocular morbidity.[56]

- **Providing specific consideration to the role of treatment and technology:** Alongside improvements to the eye health and sight loss pathway, it is vital that any eye health strategy intended to improve patient experience and outcomes, and make efficiencies across the system, includes specific consideration of how advancements in treatment and technology can support these ambitions.



Industry work with Integrated Care Systems[57]

Integrated Care Systems (ICS) provide an important opportunity to bring together community, primary and secondary care providers, alongside local authorities, to standardise care and improve both outcomes and experience for patients across a geographical locality.

To support the collaboration aims of Black Country and West Birmingham ICS, Santen and the local ICS team ran a series of workshops bringing together a large cross-functional group from across the ophthalmology network to explore best practice and plan for future needs and outcome delivery.

With the facilitation of Santen, the group effectively reviewed priority challenges and areas for improvement, including ways to optimise models of care towards those that will be the most successful at managing local priorities, whilst ensuring local knowledge and expertise is harnessed for the benefit of patients.

Ophthalmology priority areas were agreed, and clear action plans and next steps were established. This collaboration and co-designed strategy between key stakeholders also has wider positive implications for the NHS, including enhancing productivity, driving efficiencies, and improving teamwork across the ICS.

Digital solutions for vision monitoring

Moorfields Eye Hospital utilised digital technologies during the COVID-19 pandemic to empower patients to test and monitor changes in their vision at home during and beyond the pandemic, using the Home Vision Monitor smart-phone based app.

Launched in February 2021 in collaboration with Roche, the project involved 400 patients who were are asked to test their own vision twice a week. Results were sent to their clinician and discrepancies between scans triggered an automatic alert, which helps the clinician to intervene at an early stage of disease progression and provides patients with the chance of better outcomes.

An extensive patient survey assessed factors that can influence uptake, engagement and compliance in using self-care technologies, and concluded that:

- 98% of patients found the app either easy or very easy to use
- 89% of patients would recommend the app to others
- 82% of patients experienced increased reassurance from using the app

The Home Vision Monitor triggered 26 vision change alerts during the study. 11 patients had their next treatment appointment moved forward, and the remainder were seen within seven days of their alert.

The programme has received awards such as the HSJ Patient Safety Award, and results have been published in JAMA Ophthalmology.[58]

Case Study

Condition: Glaucoma

Intervention: Glauc-Strat-Fast tool

Summary: Patients with glaucoma require life-long clinical monitoring following their diagnosis to prevent progression and avoidable sight loss. As such, risk stratification is the essential first step in effective glaucoma care.

Adoption of a nation-wide glaucoma risk stratification tool would help to ensure that the right patients are seen in the right clinical setting, thereby enhancing service delivery by supporting effective commissioning and reducing the risk of avoidable blindness in patients.

AbbVie worked with the University Hospital Birmingham NHS Foundation Trust to place a service transformation fellow within the Trust to support the introduction and implementation of a newly developed risk stratification tool – the Glauc-Strat-Fast tool – across the local Integrated Care System (ICS), with the ambition to help address the strategic recovery and transformation objectives for ophthalmology across the hospital and wider healthcare system.

This has led to a wealth of benefits for patients such as reducing hospital visits, improving understanding of the risk of disease progression, and reducing the risk of avoidable blindness due to improvements in care. Meanwhile, use of the tool has had clear positive impacts for the local health system, such as improved glaucoma service delivery that enables earlier detection and intervention and a shift to non-hospital-based care where clinically appropriate.

Measures to support improvements in eye health

The role of new clinical indicators in eye health

Clinical indicators and metrics can act as important quality improvement levers at an ICS, neighbourhood and place level. The introduction of these levers provides an important opportunity to support widespread quality improvement and delivery of best practice in eye health, with the aim being to address current service challenges impacting patient access to and uptake of innovative treatment options, as well as broader patient experience and outcomes. Given the progressive nature of many eye health conditions and the urgent need to prevent avoidable sight loss, it is essential that a National Strategy for Eye Health includes consideration of new policy levers that can support improved data collection and ensure patients have access to the right treatment, care and support, at the right time.

While the emergence of ICSs has seen previous NHS policy frameworks – such as the Clinical Commissioning Group Outcome Indicator Set (CCG OIS) – put on hold, there remains a recognition that when they are designed effectively, clinical indicators can help to provide useful guidance for those designing services and important behaviour change mechanisms. This is particularly the case where indicators are targeted in areas of current unmet need, or where significant, unwarranted variation exists. Within the context of eye health, report contributors highlighted that patients face a "postcode lottery" and the differing experience of patients makes care challenging to navigate. There are also almost no areas of the country where non-clinical support is consistently embedded end-to-end across an ophthalmology clinical pathway.

In recognition of this, the IVG has consulted with a range of stakeholders from the eye health community to identify priority clinical indicators that are intended as a helpful guide for ICSs and regional health systems across the UK as they seek to organise eye health services and set strategic priorities across larger footprints to address the health and care needs of their local population.

Based on these discussions, three priority areas have been identified where the introduction of new indicators would support in ensuring patients have access to the right treatment and care, at the right time, and therefore can support in preventing cases of avoidable sight loss across the country. Standardised indicators would also support an increased emphasis on data collection to evidence how these improvement priorities were being met, at both national and local levels, as well as where there are variations in service provision between regions.

The role of new policy levers in eye health

Priority indicator area 1:

The percentage of patients diagnosed with an eye health condition who have received a comprehensive review of their care, including a medication review, in the preceding 12 months.

- **Numerator:** The number of patients in the denominator who have been given a comprehensive care review, including a medication review, within the past 12 months
- **Denominator:** The number of people in the local registry who have a confirmed diagnosis of an eye health condition

Priority indicator area 2:

The percentage of patients with a diagnosed eye health condition who have received a tailored care plan, which includes access to mental health support

- **Numerator:** The number of patients in the denominator who have a confirmed tailored care plan.
- **Denominator:** The number of people in the local registry who have a confirmed diagnosis of an eye health condition

Priority indicator area 3:

The service is able to evidence participation in network activity that supports clinical research or quality improvement activity focused on ophthalmology.

- **Numerator:** The provision of ophthalmology clinical research or quality improvement activity.
- **Denominator:** Evidence to demonstrate the delivery of ophthalmology clinical research or quality improvement provision.

Case Study

Condition: Wet Age-Related Macular Degeneration

Intervention: Diagnostic hubs and treatment centres

Summary: In 2022 Bayer worked in partnership with two NHS Foundation Trusts to establish new diagnostic hubs and treatment centres for patients with macular conditions, offering rapid access to treatment in bespoke spaces. This included locations with public transport links and free parking for patients and staff, with a view of improving overall patient experience for those engaging with the service.

The observed benefits of these centres were significant, such as an increased number of injection appointments being made available, enabling significantly faster access to treatment for new patients. As a result, waiting times for follow up treatments dropped, and backlogs have been reduced. More broadly, this has had a positive impact on the productivity and efficiency of the local healthcare systems, helping maximise capacity to treat patients and enabling timely follow up treatment, which is vital for ensuring that patients get the most out of their treatment.

With the success of these collaborations, Bayer now has the opportunity to share key learnings and best practice within the ophthalmology community to support service improvement in other locations.[59]

Case Study

Condition: Glaucoma

Intervention: Innovative devices for glaucoma

Summary: Real-world retrospective studies have demonstrated the clinical and cost benefits of implementing innovative medical devices and technologies into glaucoma pathways.

One example is the use of micro shunt devices – small tubes that are inserted into the eye to help lower pressure associated with glaucoma and reduce the need for medication. Their use has been shown to support positive outcomes when compared to trabeculectomy procedures, which have until now largely represented the typical approach to care. Comparative benefits include:

- Lower rates of complications such as chronic hypotony (0% vs. 29%)
- Reduced postoperative interventions such as needling procedures (13% vs. 30% in clinic and 0% vs. 16% in theatre)
- Fewer follow-up appointments needed by patients (11.7 visits vs. 18.5 visits)
- Reduced follow-up visit costs (average 37% reduction - £1,188 vs £1,879 - measured over a 19.9 month period)

Against a backdrop of growing waiting lists and ongoing delays in ophthalmic care, increasing the uptake of innovative and well-evidenced devices and technologies in the area provides a key opportunity to increase efficiencies, improve patient journeys and support overall improvements in outcomes for those affected by glaucoma and other eye health conditions.[60]

Recommendations

Based on the findings from this report and consultation with experts from the eye health community, the Industry Vision Group have set out the following recommendations intended to ensure system readiness for both the expected increase in eye health conditions, as well as the pipeline of innovative treatment options and novel solutions that have the potential to shape the future of eye health care in the UK. These recommendations are intended to inform development of a National Eye Health Strategy in England, as well as considerations to incorporate into existing eye health strategies in Scotland, Wales and Northern Ireland.

Prevention

1 **Government prevention strategies should include a specific testing programme for eye health conditions and preventable sight loss among at-risk groups, including clear measures to increase awareness of routine eye tests and their value.** Eye tests present an important opportunity to assess visual activity and detect certain eye conditions, including those that can cause avoidable sight loss. Despite this, uptake of eye tests across the country is variable, particularly among men and minority ethnic groups, who have been identified as the most likely cohorts to skip a regular eye test.[61] Promoting and supporting greater uptake of routine eye tests – particularly for at-risk groups such as those with diabetes, history of eye disease and in the advanced age population - offers the opportunity to increase early detection of eye disease, support timely referral to treatment and improve both outcomes and experience for patients.

Data and Digital Technologies

2 **National data registries for eye health conditions should be developed across the UK to better understand service performance, patient outcomes and clinical risk across the system.** The Getting it Right First Time (GIRFT) report for ophthalmology in England highlighted the need for improved central recording of data – including patient and procedure numbers, treatment choices and outcomes.[62] These principles should be made a requirement for ICSs (and devolved equivalents) and cover all major and less common sight threatening conditions (e.g. glaucoma and AMD) – and should also include provision of mental health assessment and treatment to enable better comparison across health systems. Development of national level registries should enable improvements in the quality, depth and accuracy of data collected at a national level, particularly for high prevalence eye health conditions where capacity can be unlocked through different ways of working and improved access to treatment. These should be underpinned by clear accountability mechanisms to ensure accurate and timely reporting.

3 **Roll-out of electronic medical records and establishment of an electronic referral system in ophthalmology should be continued to support better integration across community, primary and secondary care providers.** With ophthalmology patients often presenting to different parts of the system, accurate and comprehensive data is critical to supporting improved care coordination and joint working between providers. Electronic record and referral systems will encourage seamless and efficient transfer of information and diagnostic imaging between providers, ensuring information travels with the patient throughout their journey, as well as reducing bureaucracy involved in repeat information or tests, thereby ultimately reducing delays to diagnosis.

4 **Ongoing consultation and partnership with patients, carers and the patient group community is needed to identify and develop patient reported outcome measures (PROMs) and patient reported experience measures (PREMs) to better understand health status and quality of life of people with eye health conditions and sight loss.** Contributors to this report highlighted that eye health services should be designed around the individual patient, meaning that any new measures of service quality should be developed in consultation with patients and patient group experts. As well as ensuring

consideration is given to the outcomes that matter most to patients, the introduction of new PROMs and PREMs would offer valuable additional insights into the long-term impact of innovative treatment options. ICSs in England for example should therefore be encouraged to engage with the populations that they serve to ensure measurement of the outcomes that matter most to patients.

Treatment and Innovation

5 **National eye health strategies should incorporate appropriate training and education in the application of innovative treatments and technologies, such as advanced therapies, emerging cell and gene therapies, medical devices and diagnostic technologies including artificial intelligence (AI).** Emerging treatment and diagnostic technologies will shape the future ophthalmology environment and provide the UK with the opportunity to become a world-leader in advancing standards of care, managing increasing capacity demands and reducing the economic burden of sight loss conditions. To realise the potential of these innovations, it will be important to ensure appropriate training and education in their application and value both to the patient and broader system. Specific guidance is also needed in governance and accountability structures for new digital and AI technologies, as well as engagement with patients to ensure pathway changes support improvements in experience and outcomes.

6 **NHS and national health technology appraisal agencies (including the National Institute for Health and Care Excellence, the Scottish Medicines Consortium and the All Wales Medicines Strategy Group) should develop guidance for the management and treatment of rare eye diseases.** This should include clear care pathways, access to genetic counselling and testing, criteria for referral to specialist care and treatment, and data collection requirements. To support this, NHS organisations should consider development of a rare eye disease database setting out relevant clinical trials and national disease registries for rare eye disease and make this accessible to all ophthalmologists.

Our commitment to sustainability

As a collaborative of pharmaceutical and medical technology companies, the Industry Vision Group is committed to supporting sustainable healthcare and recognise the opportunity for industry to have a positive and lasting impact on communities and the wider environment. This includes the work we do to support ophthalmology services in the UK.

To read more about our commitment to sustainability, please visit our member websites via the following links.

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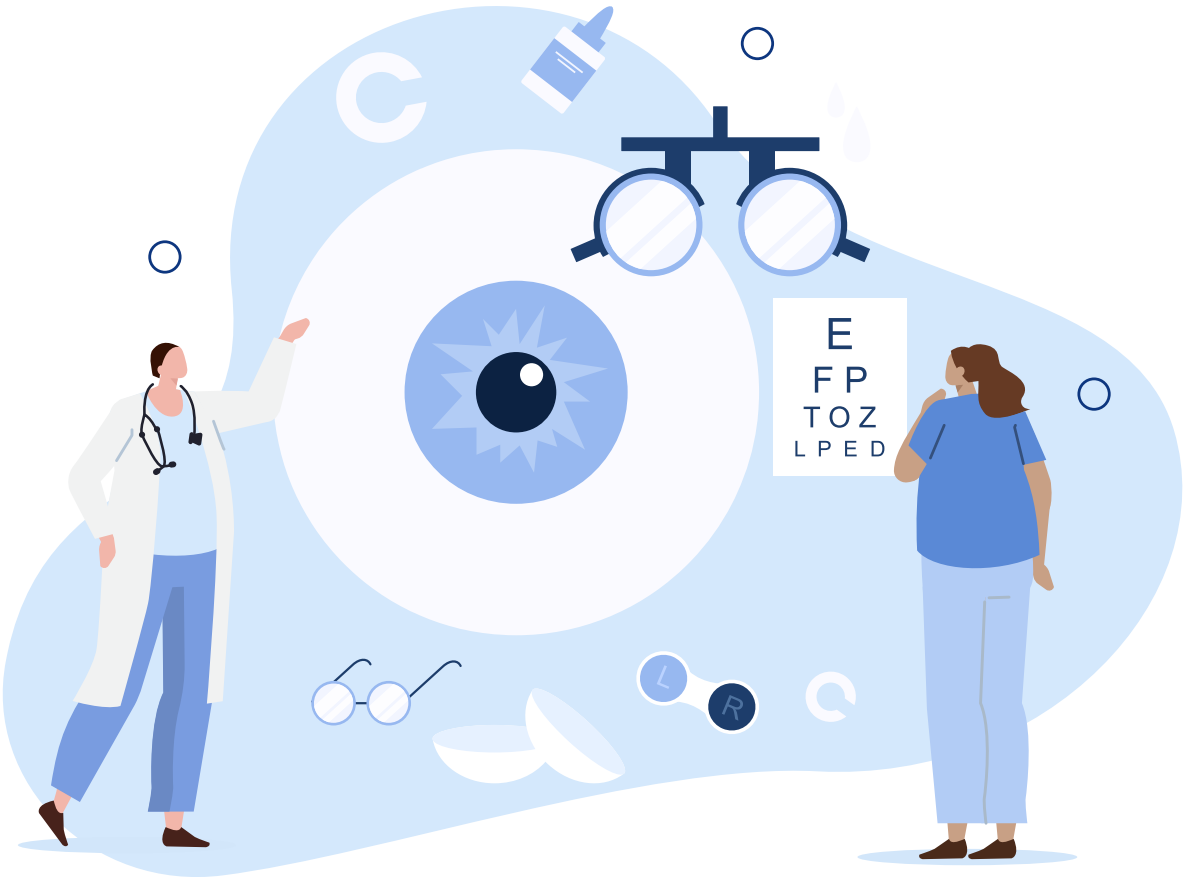
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INDUSTRY VISION GROUP

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