Department of Health

Workforce Review Report

Orthoptics

2019 – 2029

Foreword 3
Introduction & background 6
Orthoptics.. 7
Orthoptic treatment 8
Enhanced role for Orthoptists in Ophthalmology 10
The Orthoptic Profession 12
Eye care Professionals 13
Public Health 15
Executive Summary 16
Methodology for workforce planning.. 19
Mapping the Current Service - Orthoptic Services.. 20
Paediatric Core Orthoptic Services 23
Paediatric Ophthalmology Clinics / Multidisciplinary working 24
Orthoptic-led visual screening in NI 26
Vision Screening in the Special School Population 27
Targeted Surveillance in the pre-school population 28
Child Development Clinics 29
Adult Orthoptic Services... 30
Orthoptics and Ophthalmology.. 33
Extended Role (Cataract & Glaucoma) 34
Stroke 36
Maxillofacial.. 38
Neurology/Neurosurgery Inpatients 39
Defining the required workforce 40
Understanding the required workforce.. 45
Recommendations and action plan 54
Stakeholder Engagement.. 56
Defining the Plan 57
Assumptions and constraints 58

Foreword

Since October 2016, Health and Social Care workers and the Department of Health have been cooperating to deliver the transformation set out in ***Health and Wellbeing 2026: Delivering Together***. This ambitious ten-year plan was our response to the report produced by an Expert Panel led by Professor Bengoa, who were tasked with considering how best to re-configure Health and Social Care Services in Northern Ireland.

The aim is a health and social care system that helps people to stay well for longer, with services delivered in the community or at home, where possible. Allied Health Professions (AHPs) will play a key part in responding to this challenge, particularly as we expand the role of innovative, multidisciplinary teams across a range of integrated care pathways within health and social care settings. No matter how or where AHP staff work, they will continue to maintain their clear professional focus: ensuring that people, who are ill, have disabilities or special needs, can live the fullest lives possible.

Since these AHP Workforce reviews commenced the landscape across Health and Social Care has changed considerably. Opportunities for AHPs have been created across a range of primary care multi-disciplinary teams. These are to be welcomed but it is important to have the highly skilled workforce required to take these opportunities as they arise. This series of workforce reviews are written with a view to identifying and quantifying the workforce required to meet these challenges and help drive the transformation agenda forward.

The AHP Workforce reviews will help to address one of the immediate priorities set out in the “New Decade New Approach” document published at the time of the establishment of the new NI Executive. The commitment being that the Executive will transform HSC services through reconfiguration of services.

The Covid-19 pandemic challenged us in many ways including the immense pressures placed on our workforce, but there are others pressures challenging us to think and act differently and to consider as to how we currently work and as to how we may work in the future.

In this changing environment, it is even more essential that we have an understanding of our workforce needs, so that we can plan effectively to maintain and develop our services into the future. This was recognised in ***Health and Wellbeing 2026: Delivering Together*** and appears as a key theme in the associated ***Health and Social Care Workforce Strategy 2026: Delivering for Our People.*** Recognising that the HSC is a changing environment and will continue to evolve, this series of workforce reviews are "living documents" which will be reviewed throughout the period of the reviews.

This report and the clear recommendations it contains are the result of a wider Workforce Review Programme covering all thirteen AHPs in Northern Ireland. Since March 2017, Project Groups comprising representatives from across the health and social care service, professional bodies, staff side representatives and the Department of Health have been meeting regularly to consider how these professions / services are likely to develop in the period 2018 – 2028. Their work has been overseen by the AHP Workforce Review Programme Steering Group and applies the ***Regional HSC Workforce Planning Framework's*** six-step methodology.

This process and its resulting workforce review reports are the products of active co-design and co-production, delivering together to ensure the workforce needs of the HSC are met. Project Groups have engaged with their stakeholders including service users and carers, both in formal engagement events and through ongoing involvement with relevant individuals and organisations. Their input has been invaluable in producing this final document and its recommendations. We would like to thank everyone who has contributed to the work of the AHP Workforce Review Programme.

Our vision is that to Northern Ireland has an AHP workforce that has the capacity and capability to deliver the best possible care for patients and clients and has the leadership skills and opportunities to lead and transform services to improve population health. This Review Report and its recommendations set us on course to do just that for this profession.

Professor Suzanne Martin	**Philip Rodgers**
Chief AHP Officer	**Director of Workforce Policy**
Department of Health	**Department of Health**

Introduction & background

In August 2017 the Department of Health (DoH) Northern Ireland (NI) embarked on a number of regional workforce reviews across a range of Allied Health Professional (AHP) groups including Orthoptic services.

These workforce reviews were deemed necessary to ensure AHP services delivered across NI will be sustainable to meet future demands, meet the needs of the population and to ensure services are delivered to an appropriate standard in line with strategic policy directions.

It is well acknowledged that there are a range of challenges faced by the health and social care system which supports the need for the workforce to be balanced correctly in term of size and skills, ensuring there is an adaptive workforce organised well, and deployed in the correct way to provide the best possible care for service users and their families.

The Orthoptic conducted a review to determine future service needs. This involved:

- Analysis of demographic trends
- Analysis of complexity of need
- Predicting subsequent need
- Predicting service developments; and
- Identifying potential partnerships with other agencies in the delivery of services.

In doing so the Orthoptic services workforce review aims to ensure sufficient workforce for services to provide commissioned support for clients at both population and specialist levels.

Orthoptics

Orthoptists assess, diagnose and treat vision and eye movement problems such as squint, amblyopia/lazy eye and double vision, across all age groups.

Orthoptists are autonomous practitioners and experts in interpreting the way the brain and the eyes work together in processing and understanding the world.

Vision and learning are intimately related – at least 80% of what a child learns in school is via information that is presented visually. Visual impairment can impede the development of motor skills, cognition, and language. Therefore, good vision is essential for students of all ages to reach their full academic potential

/(www.ssc.education.ed.ac.uk/courses/vi&multi/vnov08i.html)

Orthoptists are experts in assessing vision holistically in the preverbal or nonverbal patient.

77% of children with neuro developmental, physical and learning disability have a visual anomaly (Woodhouse et al 2012 & Akinci et al 2008)

The aim of Orthoptic management is to maximise visual potential and to relieve symptoms of double vision and poor eye co-ordination.

For many adults, their childhood squint has had a significant effect on their psychological wellbeing.

Studies have shown that adults with a squint can be discriminated against during recruitment interviews, overlooked for promotion and are less likely to find a partner (Am J Ophthalmol 2007 Nov).

Adults with untreated vision problems e.g. double vision cannot drive and their reading, mobility and daily living activities may be severely affected.

Orthoptic treatment

Orthoptists improve the lives of those affected by specific eye problems which would otherwise limit them in their everyday activities and could have a profound effect on career choice and quality of life e.g. patients with double vision.

Orthoptic treatment may be a combination of eye patches, glasses or eye drops to treat vision loss due to amblyopia (lazy eye).

The Orthoptist uses eye exercises and prisms to relieve symptoms of eye strain and double vision.

Surgery to improve the appearance of the position of the eyes (undertaken by an Ophthalmologist) is based on the Orthoptist's measurements. The aim of the surgery

is to reduce the size of squint to relieve symptoms of double vision or to support the ability to use the eyes together (3D Vision).

Orthoptists specialised training enables them to provide holistic assessments for those with neurological, learning and physical disability e.g. those with special needs or poor communication skills following stroke/ acquired brain injury.

The orthoptic assessment will provide the multi-disciplinary team (MDT), patient and family with user friendly detailed information on visual functions (how the brain uses visual information to understand the world). The Orthoptist uses this information to identify and prescribe strategies and treatment plans to improve quality of life.

Enhanced role for Orthoptists in Ophthalmology

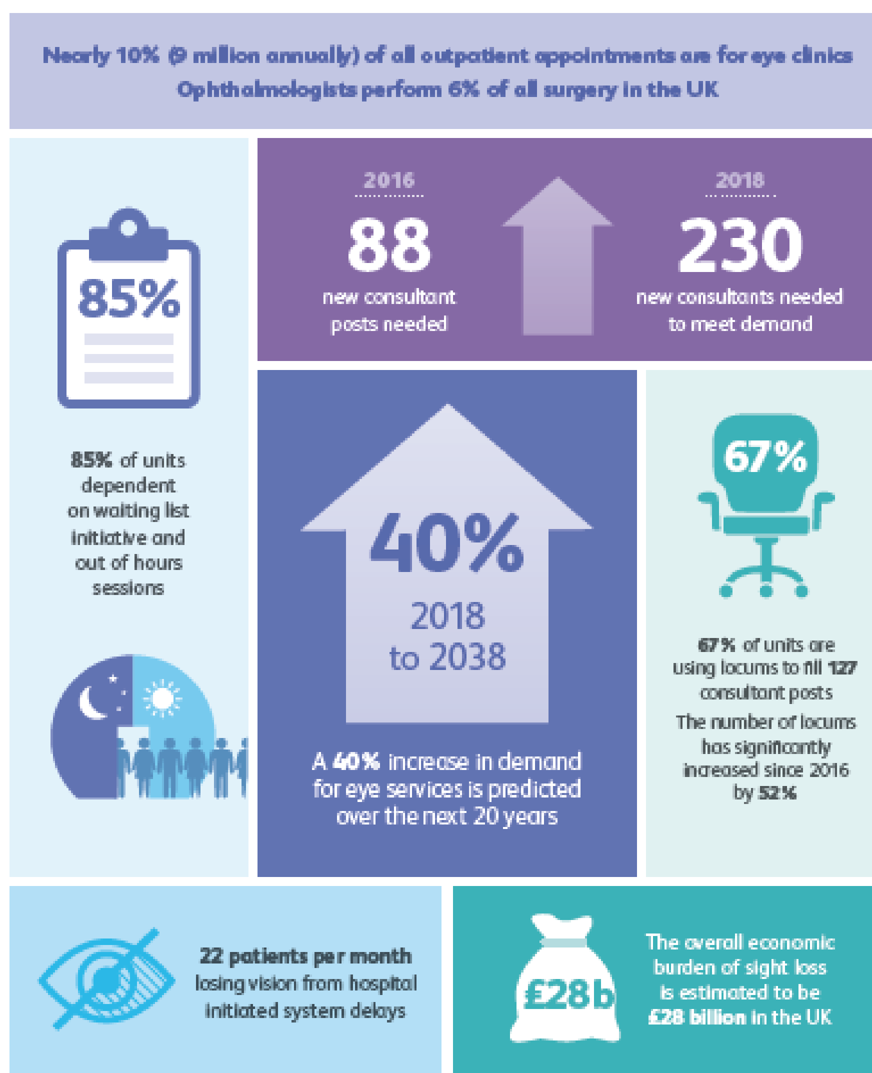


Figure 1; Ophthalmology – the hospital eye care service in crisis

The RCOPH report "The Way Forward "published in January 17 summarises the likely expansion in demand within Ophthalmology subspecialties such as cataract, glaucoma, medical retina and eye emergency.

This is further supported by the RCOPH workforce census January 2019 which states a 40% increase in demand for services (see Figure 1).

To address this increased demand on Ophthalmology services the Orthoptists alongside other non-medical health care professionals * work as an integrated part of the multidisciplinary team specialising in pre and post-op cataract assessment, Glaucoma monitoring and Macular services.

* (GPs with extended role, optometrists, ophthalmic nurses and ophthalmic clinical scientists)

This team has taken on expanded roles, which release ophthalmologists to make more complex clinical decisions and to deal with more complex cases.

This work is further supported by the Royal College of Ophthalmology Core Competency Framework (2016) which allows these professions to take on **expanded roles, to help manage demand** and to continue to provide **safe and efficient care** for patients.

“Competencies are transparent, transferable and based on recognised training. The Framework will also **improve opportunities to recruit** more non-medical healthcare professionals to take on expanded roles.”

Regionally in Northern Ireland this work is reinforced by the *Developing Eye Care Partnerships Strategy* launched by the Department of Health (2012-2017) with an aim to minimise sight loss and reduce Health inequalities. It recommends non-medical roles to address the changing demographics and to reduce Ophthalmology waiting lists.

Ophthalmic service Commissioners from HSCB have indicated that workforce reviews should include Orthoptists in at least 33% of these new roles.

The Orthoptic Profession

Orthoptists in the UK and Ireland have the opportunity to be members of the British and Irish Orthoptic Society. (BIOS) As a professional body they provide insurance for members, trade union representation, competency standards and professional practice guidelines. The BIOS is affiliated to the Allied Health Professionals Federation.

> "The BIOS are very proud that we are represented or make significant contributions to many national and international groups. This continues to ensure that Orthoptic practice, policy research and education aligns with AHP and Eye Health Strategies."
> BIOS Website 2019

The BIOS have recently appointed a policy officer and launched a new 5 year strategy (2019-2024) with campaigns including,

"I see the difference" - Promoting Careers in Orthoptics.

"My eyes my Orthoptist" - To raise awareness amongst other healthcare professionals, commissioners and policy makers about the vital role of Orthoptists"

A large part of this strategy is focused around the increased use of digital platforms such as Facebook and Twitter to promote Orthoptics to the general public.

Eye care Professionals

Within the Multi-disciplinary Eye Care Team there are some roles specific to each profession and others which can be filled with professionals from a variety of backgrounds following enhanced training.

Ophthalmologist

An Ophthalmologist is a medically trained doctor who commonly acts as both physician and surgeon. They examine, diagnose and treat diseases and injuries in and around the eye. They may also specialise in certain areas e.g. Retinal, Glaucoma, Cataract, Paediatrics, and Neuro-Ophthalmology.

GP with Extended Role (Ophthalmology)

A General Practitioner with a special interest in Ophthalmology, usually having completed a post-graduate diploma in Ophthalmology. Examines, diagnoses and treats patients with certain conditions e.g. Glaucoma, Cataract, cysts, dry eyes.

Orthoptist:

An Orthoptist diagnoses and treats defects of vision & abnormalities of eye movement. They look after people with eye problems - often related to binocular vision, amblyopia (lazy eye) and strabismus (squint).

Orthoptists are the only Allied Health Profession working within the Eye care team. Only those registered with the statutory regulator, the Health and Care Professions Council (HCPC) can use the title of Orthoptist/Registered Orthoptist (RO).

Optometrist:

An Optometrist examines eyes, tests sight and prescribes spectacles or contact lenses for those who need them. They also give advice on visual problems and detect any ocular disease or abnormality, referring the patient to a medical practitioner if necessary.

Ophthalmic nurse specialist

An ophthalmic nurse specialises in the ophthalmology branch of medicine, which focuses on the health of the eyes. An ophthalmic nurses assists in the assessment, treatment and care for patients with a variety of eye diseases or injuries, including glaucoma, blindness, astigmatism, cataracts, macular degeneration.

Public Health

Orthoptists have an important role in public health promotion.

Public health is the promotion of health and well-being, prevention of ill-health and reducing health inequalities. The NHS Long Term Plan clearly sets out the vision towards a healthier nation with a focus on prevention and public health. In order to achieve this there needs to be an engagement of the wider health workforce to ensure we take a holistic view of our patients to improve their health and wellbeing. As orthoptists we are ideally placed to embrace this initiative and contribute to better health for all. (BIOS Statement 2019)

The NHS long term plan identifies 4 priority areas where AHPs we can make a difference:

- giving children the best start in life
- making every contact count
- emotional health and wellbeing
- health wellbeing of older adults

An effective and quick way to make an impact is by having healthy conversations and recording these in patient's notes.

https://www.orthoptics.org.uk/resources/public-health/

This is further supported through public health Northern Ireland Strategic framework "Making Life Better"

Allied Health Professions Federation. UK Allied Health Professions Public Health Strategic Framework 2019-2024. 2019.

Executive Summary

There are currently no training courses for Orthoptics in Northern Ireland or the Republic of Ireland, the graduate Orthoptic course is only available in Liverpool, Sheffield and Glasgow Caledonian Universities. In the UK and Ireland approximately 100 Orthoptists qualify each year. Students residing in N.I. and wishing to study Orthoptics are forced to travel to England or Scotland and pay significantly higher fees compared to £4,030 course fees if undertaking another undergraduate course in NI (Table 1).

University	Fees per annum
Liverpool/Sheffield	£9250
Glasgow Caledonian	£7,000 (no fees for 4th year of study)

Table 1; describes the cost of courses for each university

The Council of Deans reports no issues with the level of applications to undergraduate degree courses despite the introduction of course fees for Allied Health Professions. However for the first time, for Orthoptic courses commencing September 2017, first choice course options were not filled and the clearing system was utilized to fill places.

In January 2018, the Higher Education Funding Council for England (HEFCE) announced a new £3 million programme aimed at supporting higher education in small specialist healthcare disciplines including Orthoptics. This support will include a national marketing and communications campaign to encourage students to apply. More specifically, the programme will also support work-shadowing facilities in Orthoptics.

The Orthoptic Managers realise the importance of facilitating student placements to encourage graduates to return to N.I. Student placements are currently in place in

WT, NT and BT. Several factors affect placements such as, a small workforce scattered across a few sites in any one trust, the rural nature of N.I lack of transport infrastructure and accommodation difficulties.

In this document, we emphasise the need for equity of Orthoptic services across Northern Ireland. Two examples of inequity discussed in this paper are, Orthoptic assessments in school for Children with Special Education needs and Orthoptic Screening for all stroke survivors.

This paper discusses the need to support funded postgraduate training for extended scope practice in Orthoptics. Postgraduate training of Orthoptists will support the Delivering Together Strategy in terms of co-production, and the transformation agenda. In this changing environment, it is even more essential that we have an understanding of our workforce needs, so that we can plan effectively to maintain and develop our services into the future. This was recognized in ***Health and Wellbeing 2026: Delivering Together*** and appears as a key theme in the associated ***Health and Social Care Workforce Strategy 2026: Delivering for Our People.***

Postgraduate training for both Clinical and managerial roles is necessary to facilitate succession planning to address the projected workforce deficit caused by an ageing workforce, increased flexible working and staff maintaining a work life balance.

We have also considered the possibility for Orthoptic management restructure in NI

In the table referring to required workforce (page 34) we have estimated that moving forward we require as an Orthoptic service an additional 23.5 WTE to provide an equitable service across Northern Ireland including, excluding staffing required for extended roles for AMD, Glaucoma post op cataract which needs clarification from HSCB. (See recommendation 2)

The Royal College of Ophthalmologists have developed common clinical competencies for non-medical practitioners (e.g. Orthoptists) in extended roles for many conditions for such as Glaucoma. Medical Retina, Acute Care and Cataract. This is in line with recommendations in 'Developing Eye Care Partnerships'.

In order to progress extended scope practice new graduate Orthoptists are now qualifying with, as part of their degree, exemptions from medicines act restrictions.

This will allow Orthoptists to instil specific eye drops without the requirement for patient group directions (PGD). This is also available as a post graduate qualification, leading to independent prescribing (IP) in the future.

Methodology for workforce planning

The Skills for Health Six Step Methodology to Integrated Workforce Planning model was applied to this workforce review exercise (see Appendix 1). Figure 2 describes the 6 steps are:

Figure 2; describes the Skills for Health Six Steps Step Methodology to Integrated Workforce Planning model.

See appendix 1 for methodology

Mapping the Current Service - Orthoptic Services

Orthoptic Clinics are currently delivered at 32 sites across NI (Figure 3) (April 2019)

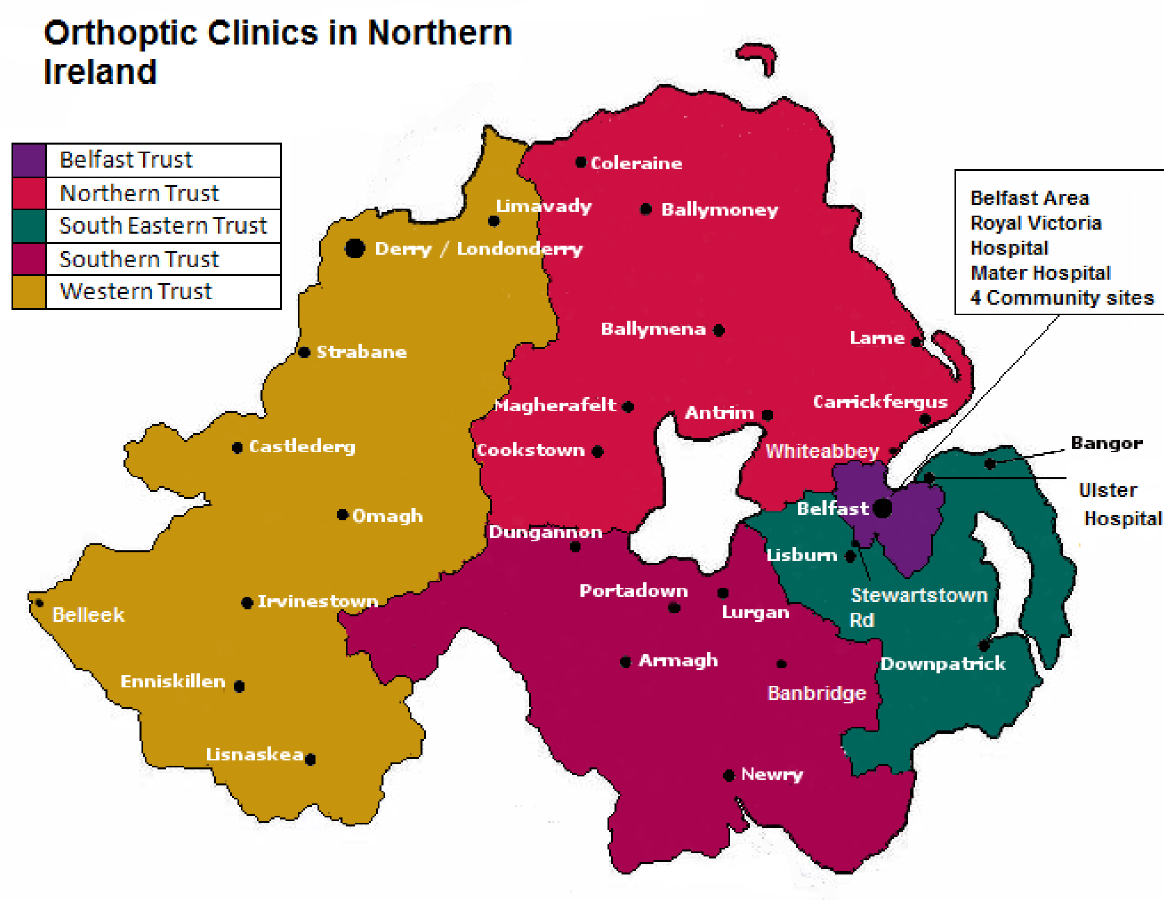


Figure 3; illustrates the locations of each orthoptic clinic across the 5 Health & Social Care Trust Areas

Orthoptists provide assessment and treatment to a variety of patient groups (figure 4); they can work as part of a stand-alone service and within multidisciplinary teams. Clinical settings straddle acute, community, paediatric and adult services and are now addressing the increasing demand for domiciliary care.

Orthoptists work in a range of settings across Northern Ireland including hospitals, community and education.

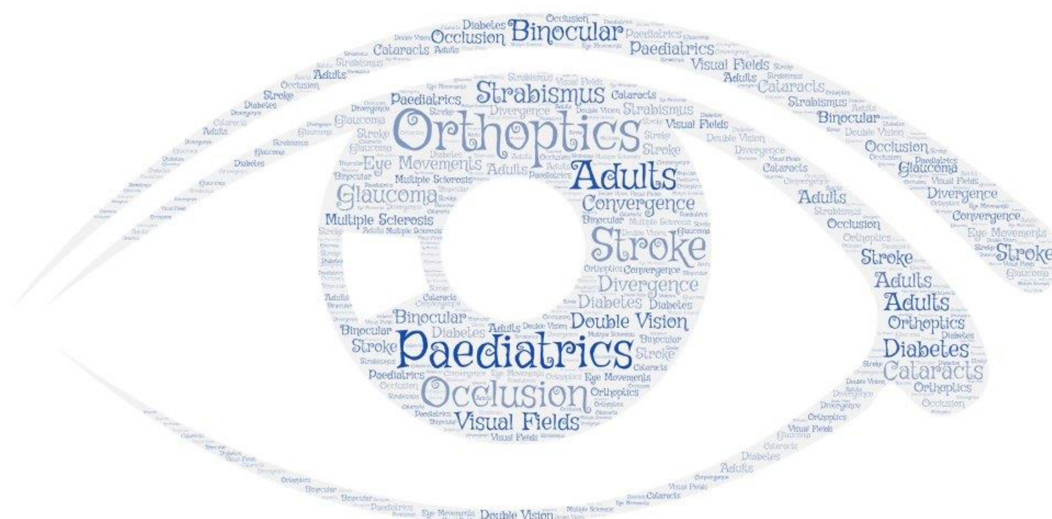


Figure 4: Word cloud illustrating the orthoptic role

Patients are treated from all programmes of care and specialities including paediatrics, neurology, stroke, community services, rehabilitation, geriatrics, neonatology, paediatric neuro-ophthalmology, and maxillo-facial services (Figure 5 & 6).

Across all HSC Trusts, Orthoptic services follow regional access criteria for all Orthoptic patients including inpatients, outpatients and community services for a range of clinical conditions, ensuring consistency of service provision across the region. Any health care professional may refer people who meet these criteria.

Regionally agreed evidence based care pathways ensure consistency of Orthoptic practice for all patients with these conditions. These pathways were introduced following post graduate training and are now fully implemented to ensure consistent clinical practice by Orthoptists across all Trusts. They include:

- Cranial nerve palsies
- Intermittent exotropia
- Accommodative Esotropia

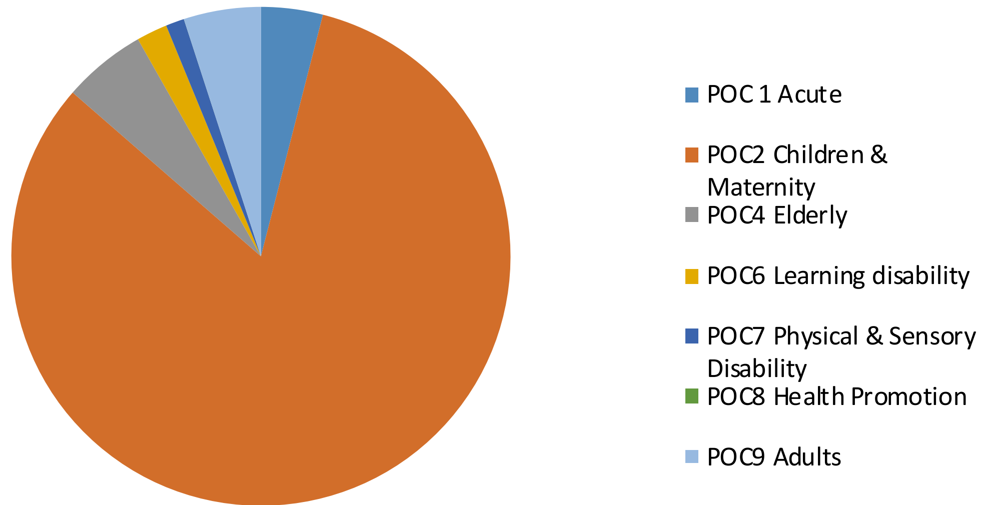
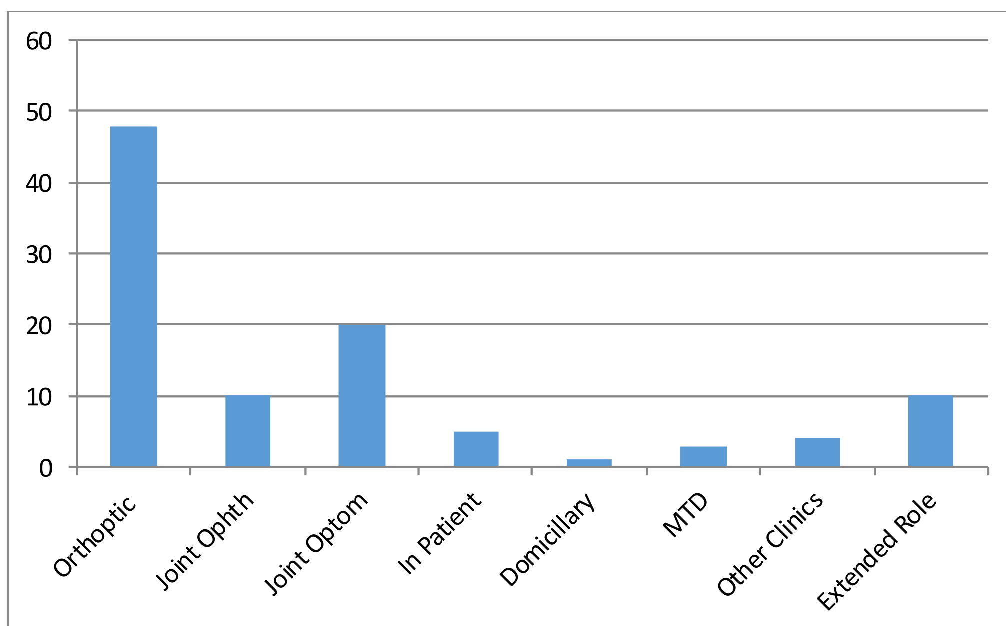


Figure 6 illustrates a bar chart showing the average % clinical time



Paediatric Core Orthoptic Services

Children's core Orthoptic services are provided in acute, community and outpatient settings. The majority of these patients are triaged, assessed, managed and treated by Orthoptists working autonomously.

The most common reasons for referral are reduced vision in 1 or both eyes and misalignment of the eye (squint).

Mum has concern that her 1 yr. old child has a Strabismus (squint). She speaks with her Health Visitor, who refers the child to the Orthoptist. The Orthoptist confirms the presence of a squint, liaises with the optometrist (optician) to see if the child needs glasses, monitors the child's vision and size of squint. The Orthoptist treats any poor vision (amblyopia) and if need be, liaises with the eye consultant (ophthalmologist) should the child need squint surgery. Once the child is of an age where the vision is stable and squint cosmetically acceptable, they are discharged

Orthoptists are the lead professional diagnosing and treating Amblyopia. Using a cost-utility analysis Membrano et al (2002) concluded that when compared with other interventions in health care, therapy for amblyopia seems to be highly cost effective.

Clinic Types (Figure 7)

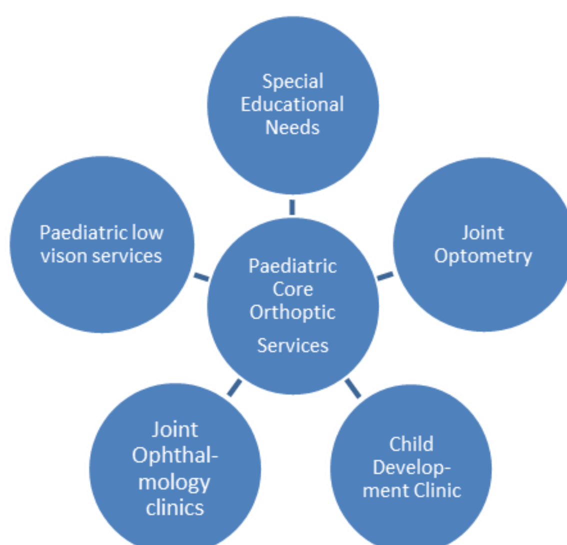


Figure 7; illustrates the type of paediatric orthoptic clinics

Paediatric Ophthalmology Clinics / Multidisciplinary working

Across Northern Ireland there are multi-disciplinary Paediatric Ophthalmology Clinics usually led by a Consultant Paediatric Ophthalmologist. These are Surgeons who specialize in the assessment, diagnosis and treatment of eye conditions and diseases in childhood (under 18) for example retinopathy of prematurity and congenital cataract.

"Close collaborative working between paediatric ophthalmologists, orthoptists, optometrists and specialist nurses at multidisciplinary clinics is central to the success of the multi-award winning Children's Eye Service in the BHSCT. A high-quality, patient-centred and child-friendly service is delivered to children with eye problems including those with complex visual, medical, educational and social needs.

Orthoptic support is vital to the smooth and efficient running of these clinics and prospective orthoptic cover is required to ensure service delivery 52 weeks of the year.''

(Ms. Eibhlin Mc Loone, FRCOphth Consultant Paediatric Ophthalmologist, RVH, BHSCT Specialty Improvement Lead in Children's Eye Services, BHSCTPatient Safety & Clinical Governance Lead in Children's Eye Services, BHSCTPatient Quality & Safety Lead in Ophthalmology (Audit), BHSCT) April 2019

An Orthoptist is an integral part of these clinical teams assessing vision, visual function, visual processing, strabismus and eye movement. These roles are expanding with the aim to have advanced practice Orthoptists as part of these teams. The recent introduction of a hub and spoke model for Belfast Trust Ophthalmology services has seen an increase in multi-disciplinary Paediatric Eye clinics, beginning in Northern and Southern Trusts with roll out to South Eastern Trust soon. (See recommendation 2)

Figure 8; Belfast Trust - Award Winning Care of Children with Sight Impairment 07/07/2016

NOVIC was launched in February 2015 and is a multi-disciplinary team which runs vision clinics specifically for children with sight impairment secondary to neurological problems. Figure 8 depicts the NOVIC team who won the Vision Pioneer Award in 2016. It is a joint venture between the Children's Hospital, RVH Eye Department (including Ophthalmology, Orthoptics and Optometry), Neuro-disability and Occupational Therapy, and partner organisation RNIB.

The innovative approach of NOVIC ensures the child's visual and systemic welfare are assessed at one visit. Each assessment comprising visual, neuro-developmental, occupational therapy examination and is tailored to the individual child. The emphasis is upon discovering and optimising visual potential, while family and community service support is also discussed with our Eye Clinic Liaison Officer.

There are almost 25,000 blind and partially sighted children in the UK - 2 in every 1,000 children, which is why it is essential that all young children have their vision tested.
A child's eyes are in constant use in the classroom and at play. If they have any undetected problems with their vision, their education and participation in activities and sports can suffer.
The child vision screening programme is the only chance for all children to get their vision tested formally so that problems can be identified and tackled quickly at the start of their school life – helping ensure they can reach their full potential.

(Dr Anne Mackie, Director or Screening PHE Oct 17)

Orthoptic-led visual screening in NI

The department of Health support the National screening committee (NSC) recommendation that screening of children's vision should be offered to all children aged 4 to 5 years.

In Northern Ireland there is an Orthoptic led vision screening programme for all children at their P1 health appraisal. This is delivered by school nurses as part of the 'healthy child healthy future' programme with a regionally agreed pathway for onward referral to Orthoptics for all children who do not meet the UK national screening committee's agreed standard.

At screening children are required to undertake a "logmar" vision test and if vision is worse than 0.2 LogMAR in one or both eyes, or they are unable to complete a test, they are referred to a local Orthoptic department for further testing.

Vision Screening in the Special School Population

In WHSCT and SHSCT, an Orthoptic delivered programme (in conjunction with hospital Optometry colleagues) provides an in-school vision assessment service to all children attending a special school.

This population of children are much less likely to be able to co-operate with National Screening Committee recommended tests and are also much more likely to have visual/ocular problems

https://www.rcophth.ac.uk/wp-content/uploads/2016/07/Framework-for-Proposed-Special-Schools-Service-Final-ABDO-BIOS-College-of-Optometrists-LOCSU-RcOphth-and-SeeAbility-2.pdf

Both WHSCT and SHSCT Orthoptic programmes in this cohort have shown to have comparable uptake rates to the school nurse "mainstream" programme whereas if seen as an outpatient the uptake is reduced (BHSCT audit) and provide a child centred model in their school that:

- Reduces anxiety and stress for parents/carers
- Minimises burden on hospital eye clinics, by reducing the need for onward referral and allows for safe discharge
- More likely to achieve an assessment of visual function in a familiar environment rather than a clinical environment
- Reduces failed to attend appointments at hospital eye clinics
- Ensures educational involvement
- Has effective feedback and communication systems
- Supports continuity of care from eye care professionals in the school

This is not yet replicated in the remaining 3 trusts.

A recent RQIA audit of Vision Screening in Special Education Schools in Northern Ireland 2018 highlighted that school nurses were only able to complete a vision screening, using the recommended screening tool (Keeler logMAR crowded test) in

51% of the children attending special schools and only 31% of those who failed the screen had an onward referral noted on CHS.

https://rqia.org.uk/RQIA/files/3a/3a6609de-cabb-4e75-809e-d9d0082b728b.pdf

In light of the findings of the RQIA audit, the evidence from the present programmes delivered in WHSCT & SHSCT, coupled with the guidance from the Royal college of Ophthalmologists supported by the National Screening Committee, we would recommend that the Dept. Of Health seek to implement a regional, Orthoptic delivered vision assessment programme (in conjunction with hospital optometry service) to address the inequity.

Targeted Surveillance in the pre-school population

Orthoptists have the skills and expertise to link effectively with child health promotion, prevention and care. Supporting our Health visitor colleagues in the identification of risk of visual problems in childhood and provide a referral pathway when concerns /risks are identified. This adheres to the recommendations of the NSC 2013 and Health for all Children 2003.

Child Development Clinics

Orthoptists are an active member in Child Development Clinics in 3 out of the 5 trusts.

Orthoptists work as part of a multi-disciplinary team which provide a joined up approach to the assessment of children with Special needs. Team make-up may include a Paediatrician, Occupational Therapist, Physiotherapist, Speech & Language therapist and Social Worker.

Sharing information as a group can allow professionals to discuss shared goals and treatment options and learn about issues which may impact a child's development. For example visual deficits such as lower visual field loss which can affect children navigating steps and stairs.

Case discussions with parents give an opportunity for all of the team to hear about the many different aspects of health care involved in each child's life and how they affect a family, ensuring a holistic approach to clinical decision making.

"The multidisciplinary child development team find the input of the orthoptist an integral part of our assessment of children with complex disability. Their assessment adds a number of facets including enabling other members of the team such as occupational therapy to understand the impact of vision on the child's eye-hand co-ordination and thus direct therapeutic input accordingly, sharing information from other professionals involved in assessing vision, enabling us to understand how a child's cerebral visual function and eye movements are affecting their development and on occasion directing us towards aetiological investigations. Even in cases when the child's vision is normal it is reassuring for the team to know this as we have limited ability to assess vision ourselves."

Dr Alison Livingstone, Consultant Paediatrician, Antrim CDC. April 2019

Adult Orthoptic Services

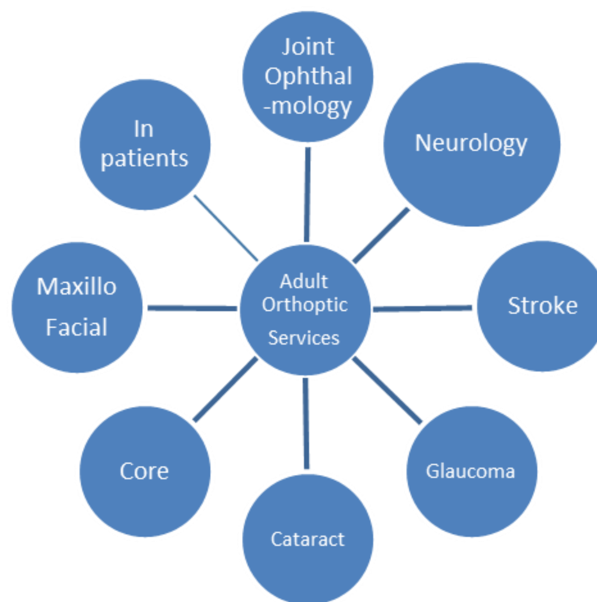


Figure 9; illustrates the orthoptic adult services delivered across the region

Adult Core Orthoptic services are provided in Acute, community and outpatients settings, delivered in both scheduled and unscheduled care (Figure 9).

The most common presenting symptoms and conditions are squint, double vision and visual field loss.

Individuals with strabismus are more likely to develop mental health problems (Jackson et al.2006)
In adults due to undergo strabismus surgery the proportion of patients suffering from anxiety or clinical depression is 10 times higher than found in the general population, a rate similar to that for people with facial disfigurement.(McBain et al 2014b)

The consequences of a squint (an eye condition where the eyes do not look in the same direction as each other) are well documented.

The Blue Mountain Study (Investigative Ophthalmology & Visual Science January 2000) assessed the relationship between reduced vision and low self-rating of global health, highlighting the impact lower levels of vision have on self-esteem and self-confidence which can directly reduce a person's ability to form a relationship and attain high levels of education.

Double vision and visual field loss can impact many aspects of life including driving, mobility, and work and leisure activities. The Driver and Vehicle Licensing Authority have set standards for driving which precludes those with reduced vision, double vision and visual field loss.

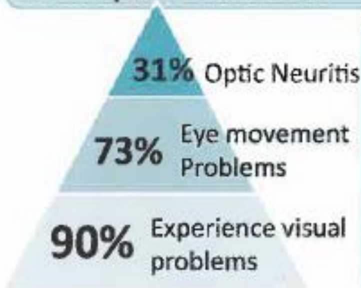
ORTHOPTISTS
Eye & Vision Specialists

Eye Care in Neurological Conditions

People with neurological conditions experience **a high** incidence of **visual problems.**

Orthoptists can assess, **diagnose,** treat and **monitor** visual signs as an important part of clinical care.

Visual Problems in **Multiple Sclerosis**



Brain Tumors

frequently affect vision & eye movements.

e.g. Up to **90%** of those with tumours of the optic nerve and pituitary gland.

Around **80%** of people with **Parkinson's Disease** have signs of ocular dysfunction.

Common Visual Problems:

Reduced **vision** & changes to colour/ contrast

Visual field loss

Abnormal eye **movements &** **double** vision

How can an Orthoptist help?

MEASURE defects & **MONITOR** Changes

Offer **ADVICE/ TEACH** compensation techniques

TREAT symptoms/ **CORRECT** defects with prisms/lenses/

REFER for surgery where appropriate

www.orthoptics.org.uk

@neuroorthoptics

Figure 10; infographic describing the role orthoptist play in neurological conditions

Orthoptics and Ophthalmology

While many adults presenting to the Orthoptic clinic have longstanding problems related to childhood squint or vision problems, a large proportion attend as a result of recent onset or acute visual problems related to injury to the brain or nervous system.

Nerves transmit visual signals from the eyes to the brain and damage to any part of this system can cause problems controlling eye movement, difficulty looking in certain directions and or double vision due to eye misalignment. Damage can be caused by trauma, inflammation, stroke, tumours, toxicities and infections.

Eye misalignment and eye movement problems may be treatable with prism lenses, exercises or surgical procedures (undertaken by the Ophthalmologist).

Orthoptists work closely with Ophthalmology to diagnose particular patterns of eye movement. Appropriate investigations such as CT Scans, MRI, Ocular Ultrasound, Electro-diagnostics and Neurophysiology are often recommended on the basis of eye motility findings and can lead to the diagnosis of other systemic problems such as brain aneurysm, multiple sclerosis and Parkinson's disease. Figure 10 describes the orthoptists role in neurological conditions.

An important part of the Orthoptists role is to arrange for advice and support via the ECLO (Eye Care Liaison Officer) who has close links to social services and relevant third sector organisations (e.g. Macular Society, RNIB) and has received training in psychological/mental health implications, including the Charles Bonnet syndrome, and social aspects of loss of vision in the elderly. They will also provide referral to low vision aid (LVA) services were appropriate.

Extended Role (Cataract & Glaucoma)

Compared to England the number of Orthoptists in NI working in extended roles is relatively low. According to the RCOPH common clinical competency framework for non-medical ophthalmic healthcare professionals in secondary care – Orthoptists are recognised as one of the professionals who possess the basic skillset to train in these areas.

Glaucoma:

Glaucoma is the name given to a group of eye conditions that cause permanent sight loss by damaging your optic nerve. It is the second most common cause of blindness. Approximately 10% of UK blindness registrations are ascribed to glaucoma. It is estimated that in the UK about 2% of people older than 40 have chronic open angle glaucoma, and this rises to almost 10% in people older than 75. With changes in population demographics the number of people affected by glaucoma is expected to rise

Cataract:

A cataract is a clouding of the lens in the eye which leads to a decrease in vision.

Nearly 400,000 cataract operations are performed annually in the NHS.

Due to increasing elderly population it is anticipated an increase of around 50% in the numbers of cataract operations are to be expected to be performed over the next 20 years (25% increase over the next 10 years).

Northern Ireland has recently announced the re-organisation of hospital services with the launch of 3 new prototype elective care centres for cataract surgery, located in Mid Ulster, Downe and South Tyrone Hospital.

The Royal College of Ophthalmologists recognise that this increase in demand can't be addressed with an increase in Ophthalmologists alone, but the need to optimise and train members of multidisciplinary team of ophthalmic nurses, orthoptists, optometrists and health vision scientists both in hospitals and the community.

The Royal College of Ophthalmology (in partnership with other relevant non- medical professionals) have responded by drafting the Common Clinical Competency Framework.

This sets out guidance regarding the competencies that non-medical ophthalmic healthcare professionals (HCPs) from different generic backgrounds need to possess in order to safely and successfully undertake the expanded roles which they are already performing.

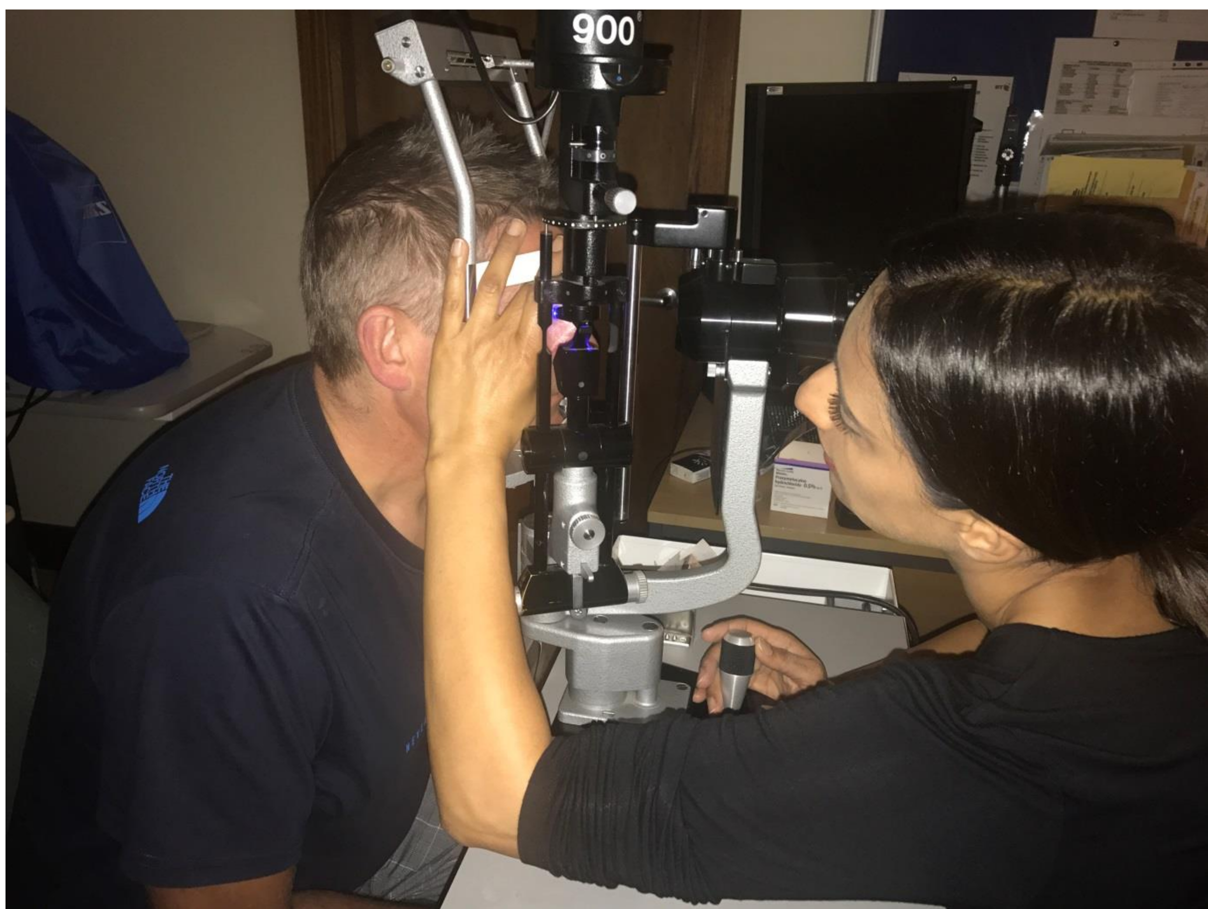


Figure 11; illustrates Rukhsana McCann, Highly Specialist Orthoptist South Eastern H&SC Trust, working in extended scope (Cataract clinic).

These levels of competence will give the non-medical professional the ability to:

- Perform clinical work that assists medical decision making.
- Work to a protocol with clearly defined delegated decision making.
- Make decisions independently with appropriate support and back up.
- Have a role in service development and teaching so that standardised skills and training are spread more widely.

Through standardisation, non-medical healthcare professionals will be able to deliver the right care safely and more easily recognise and understand the knowledge and skills they are required to have for the clinical activities they are asked to perform.

Orthoptic service managers, have recently been working with Mr Raymond Curran, Commissioner for Ophthalmic services, to ensure the development of roles for Orthoptists within these 3 prototypes. The commissioner would hope that this Orthoptic extended role could be replicated at scale and would then give career diversity and variety.

Stroke

According to HSC Reshaping Stroke Services 2017 document, there are around 2,700 hospital admissions due to stroke in NI every year

Recent research has identified that 65% of stroke survivors have visual defects such as reduced vision, visual field loss (loss of peripheral vision) and double vision.

(Hepworth LR, Rowe FJ, et al. Post-stroke visual impairment: A systematic literature review of types and recovery of visual conditions post-stroke visual impairment. Ophthalmology Research: An International Journal, 5(1), ISSN: 2321-7227).

Orthoptists can play an essential role in assessing and managing many of the visual problems that may result after a stroke.

55 yrs old male admitted to stroke ward. Orthoptist undertakes an assessment of their vision, checks their peripheral vision and ability to work their eyes together (3D). Orthoptist notes patient has double vision, fits prism to alleviate symptoms, informs Multidisciplinary team of visual deficit and gives advice on how to adjust their rehabilitation plan in lieu of the patient's eye symptoms. Orthoptist continues to monitor and adjust management, liaising with Eye Consultant (Ophthalmologist) should a surgical management be required to address the patient's double vision.

This is supported by The National Clinical Guideline for Stroke

(5th edition recommendations)

- That Orthoptists need to be part of a stroke rehabilitation unit (2.4.1)
- That people with stroke should have their near and distance vision assessed, examined for the presence of visual field deficit (e.g. hemianopia) and eye movement disorders (e.g. strabismus and motility deficit). (4.17.1A)
- That people with altered vision, visual field defects or eye movement disorders after stroke should receive information, support and advice from an orthoptist and/or an ophthalmologist (4.17.1B)

Local evidence gleaned from an Integrated Care Partnership project in WHSCT, where Orthoptists, as part of the multidisciplinary team, found that 40% of stroke survivors had a visual problem as a result of their stroke. Unfortunately, this service delivery isn't replicated in all trusts throughout Northern Ireland.

To provide an equitable service for all stroke survivors in Northern Ireland the profession would require an **additional investment of 3.95 WTE Band 7 Orthoptists.** (See recommendation 2)

The impact of having an Orthoptist as an integral part of the Stroke team is to provide specialized visual assessment and treatment for this complex group. The Orthoptist can improve a patient's rehabilitation journey, allows the patient to read again, and where possible get back to driving.

Journal,5(1),ISSN:2321-7227)
(https://www.stroke.org.uk/sites/default/files/final_report_unmet_need_2013.pdf)

Maxillofacial

As a result of orbital trauma, factures around the eye can damage the eye itself and impair eye movement which results in the distressing symptom of double vision. These patients are referred to Orthoptics from Maxillofacial services.

The role of the Orthoptist is to provide detailed measurements on the restriction of eye movement, to assess binocular vision (use of both eyes together) and to relieve symptoms of double vision, e.g. by fitting the appropriate strength of prism. The Orthoptist provides the Maxillofacial Consultant with information that can influence the timing of orbital surgery. The Orthoptic report can also highlight any potentially serious ocular problems which require onward referral to Ophthalmology.

> "All cases of orbital injury, real or suspected, should undergo orthoptic assessment. This includes Hess chart, cover test, binocular fixation test, and binocular fields of vision. All patients should be referred to an orthoptist." (British Medical Journal, best practice guidelines for Orbital fractures)

Orthoptic provision to the Maxillo Facial service is currently unfunded in Northern Ireland. Referrals come through on an adhoc basis.

In 2017/18 the number of new referrals from the Oral Maxillo-facial department at the Ulster Hospital was 44 rising to 62 in 18/19. This was a 40% increase from the previous year and is unsustainable without additionality.

In WHSCT the Orthoptic department provides an adhoc service for this speciality only when there is availability not affecting core services.

Neurology/Neurosurgery Inpatients

This Orthoptic service is delivered on acute sites e.g. Neurology/ AMU/ regional acquired brain injury unit/cancer unit. It is provided to patients with orthoptic problems under unscheduled care. The work is largely unfunded and on an ad hoc basis. These patients often present with distressing symptoms of double or blurred vision which affects mobility. The role of the Orthoptist is to document eye movement, aid diagnosis and provide symptom relief.

Some Neuro-Ophthalmology departments are keen to utilise Orthoptic skills in the development of dedicated out-patient services and pathways for the assessment, treatment and monitoring of patients with neurological conditions e.g. Idiopathic Intracranial Hypertension (IIH), headaches, space occupying lesions (e.g. brain tumours), demyelinating disease (e.g. Multiple Sclerosis) as well as neuro-muscular conditions (e.g. Myasthenia Gravis) and patients under investigation for ocular motor disturbances of unknown aetiology.

Defining the required workforce

a) Population demographics, health profile and statistics

NI 2017 mid-year statistics estimate the population to be 1.874million and the population projections anticipate a rise of **4.68%** to 1.961m by 2027.

Information and population statistics available suggest there will be varied levels of increases by 2027 across each of the LCG areas, ranging from 2.6% to 9.8%.

It is predicted that the ageing population will continue to rise and by 2027 the over 65 population is expected to increase by **28%,** representing 19.9% of the overall population.

This will have an impact on Orthoptic service demands and pressures across the health and care system, as people grow older the likelihood of illness and disability is anticipated to also increase. (NISRA, Based on 2014 Population Mid-Year Estimates)

Evidence available suggests that the prevalence of long term conditions such as COPD, Diabetes, Stroke, Asthma and Hypertension along with co-morbidities is increasing.

Deprivation has an impact on health and wellbeing in many ways resulting in the lack of social support, low self-esteem unhealthy life-style choices, risk taking behaviour and poor access to health information and quality services.

b) Understanding Workforce Availability

The total Orthoptic workforce at 31st December 2019 comprises of 45 staff (36.7 WTE) (DoH HSC Workforce information). Table 2 describes the workforce across each Trust area.

93% of the workforce is female.

Trust	Headcount	Whole-time equivalent
BHSCT	8	6.8
NHSCT	14	9.8
SEHSCT	8	6.0
SHSCT	7	6.1
WHSCT	8	8.0
Total	45	36.7

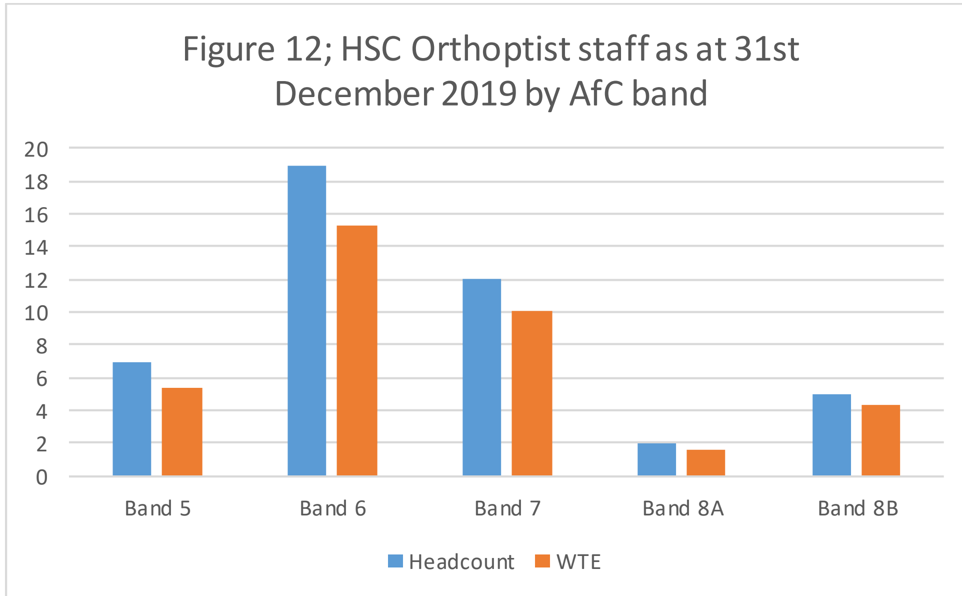
Table 2; workforce describe by headcount and whole time equivalent for each trust area

Part-time staff comprises some 49% of the total, putting additional demands on the service in terms of releasing staff for mandatory training and for time needed for supervision and managerial duties. (See recommendation 5)

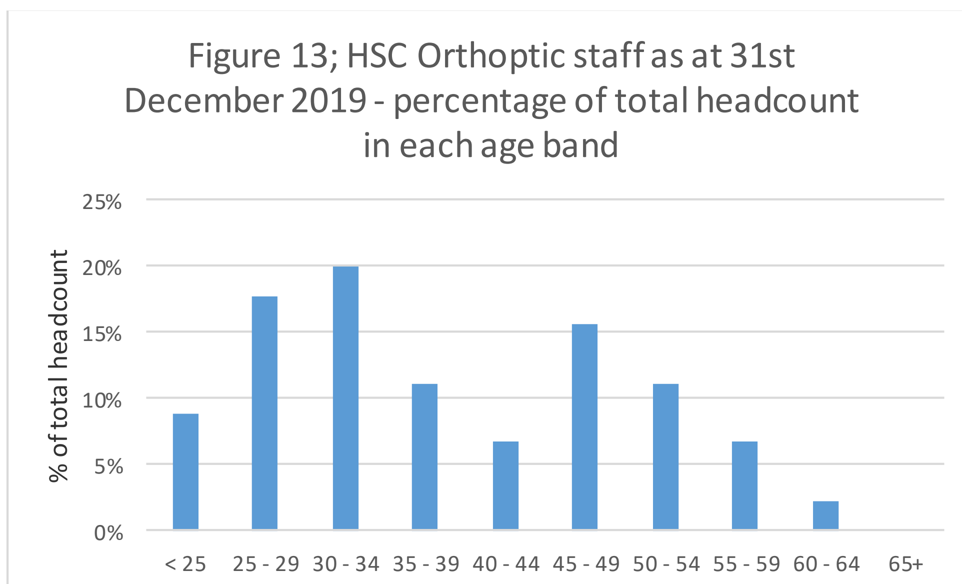
Current flexible/extended working hours has proven beneficial in both staff retention, patient satisfaction and improved access to accommodation by offering appointments beyond the 9am-5pm norm. (See recommendation 5)

c) Orthoptic Workforce Profile

Of the whole-time equivalent total, 14.7% of the posts are Band 5, 69.3% are Bands 6-7 and 16.0% are Band 8A-8B as depicted in Figure 12.



Of the total headcount, 57.8% of the workforce were aged under 40, 22.2% were aged 40-49 and 20.0% were aged 50 and over, with retirements at senior level expected within the next 10 years as described in Figure 13. (See recommendation 5)



Assistants/Technical roles – as part of embracing the skill mix ideology, in 80% of Trusts, Orthoptic assistants are employed in automated visual field assessment clinics and provide support for Orthoptists delivering services into special schools.

d) Undergraduate courses

The graduate Orthoptic course is available in England & Scotland at Liverpool, Sheffield and Glasgow Caledonian Universities providing new graduate Orthoptists with approximately 100 new graduate Orthoptists for the whole of the UK & Ireland qualifying each year. Students residing in N.I. and wishing to study Orthoptics travel to England or Scotland and pay significantly higher fees compared to £4,030 course fees if undertaking another undergraduate course in NI as described in Table 1.

The Council of Deans reports no issues with the level of applications to undergraduate degree courses despite the introduction of course fees for Allied Health Professions. For the first time it has been recorded that places for Orthoptic courses commencing September 2017, have not been filled with first choice options and the clearing system was utilized to fill places.

In January 2018, the Higher Education Funding Council for England (HEFCE) announced a new £3 million programme aimed at supporting higher education in small specialist healthcare disciplines including Orthoptics. This support will include a national marketing and communications campaign to encourage students to apply. More specifically, the programme will also support work-shadowing facilities in Orthoptics.

Orthoptic Student Placements - The Orthoptic Managers realise the importance of facilitating student placements to encourage graduates to return to N.I. Despite a small workforce scattered across a few sites in any one trust, the rural nature of N.I and transport together with accommodation difficulties, student placements are currently

in place in WT, NT and BT. It is important to highlight that accommodating student placement reduces clinical capacity. (See recommendation 1)

e) Recruitment and retention

Workforce Issues - Given the small staffing complements across the region, being managed within the 5 HSCTs, service capacity can be adversely affected by vacancies, maternity leave, etc. Currently, there is a strong field of applicants for permanent posts. However, temporary posts are more challenging to fill.

The Orthoptic profession welcomes the move to allow AHP peripatetic posts to be created whilst this may help to backfill posts.

A recent review of primary eye care services for Republic of Ireland (Primary Care Eye Services Review Group Report 2016) identified the need for 22 WTE new Orthoptic posts to implement recommended care pathways. Creation of such a significant number of posts simultaneously would lead to severe recruitment issues for the service within Northern Ireland.

Understanding the required workforce

a) Regional Service Provision

Orthoptic services are currently managed within each of the 5 trusts by an Orthoptic Head of Service. 4 out of 5 management posts retain a clinical workload, while the 5th is a part time post. Pressures to meet waiting list targets can impact on leadership roles and the development of the service as a whole. (See recommendation 4)

Within Eye Services Ophthalmology and Optometry are delivered across Northern Ireland by Western and Belfast Trust via Outreach clinics. The Belfast Trust has recently undergone service redevelopment, with a hub and spoke model of delivery to South Eastern, Southern and Northern Trust.

Consideration needs to be given to a review of the Orthoptic structures across Northern Ireland . (See recommendation 4)

The Adult and Paediatric Services outlined previously are by no means available equitably across the region and there are significant shortfalls in some key areas (Table 3). (See recommendation 2)

Table 3; describes the shortfalls in orthoptic service delivery

Service area	Service development/ proposal	Current Service provision (WTE)	Additional Staffing required in total for the region for equitable or new service provision (WTE)	Rationale
Stroke service	Regional Equity	2.4 WTE	3.4 WTE	▪ Based on National clinical guidelines for stroke (5th edition) Page 32

				▪ Timely effective treatment for Stroke/diabetic patients with disturbing visual anomalies ▪ Joyce Williams "Calculating Staffing Levels in Physiotherapy Services". ▪ To reflect demands of domiciliary visits
Regional Orthoptic-Led School screening Training post /quality assurance for P1 school nurse delivered and Orthoptic delivered special school	Full implement-ation of professional recommend-ations	0.0 WTE	1.0 WTE (requires Band 3 admin support 1WTE)	• Training provided by Orthoptists to School nurses is currently unfunded • Based on BIOS recommendation • Ensure all school nurses are competent to perform vision screening • Regional audit of service
Special Educational Needs (Special School Assessment)	Regional Equity	0.9 WTE	4.1 WTE* (for complete assessment and follow up treatment including functional vision assessment) *non recurrent funding required to address backlog of unscreened children highlighted by RQIA Audit	• Improving outcomes for all children • Early Intervention "giving every child the best start in life" • RQIA Audit of vision screening in special education schools in Northern Ireland
Core services Demography changes (address increasing Population)	Service level maintenance	0.0 WTE	1.0WTE	• Based on predicted increase in population by 4.68% • Timely effective treatment for patients with disturbing visual anomalies

Brain Injury Service	Regional service provision	0.0 WTE	1.25 WTE	Timely effective treatment for brain injury patients with disturbing visual anomalies
Adult Learning Disability	Regional service provision	0.0 WTE	3.0 WTE	Using current population figures and statistics on prevalence of visual deficit in this group
Extended practice roles in Ophthalmology Glaucoma Medical Retina Acute Cataract	Transformation of services	0.0 WTE	Figures to come from HSB	• Addressing the increasing numbers of elderly patients with Ophthalmology conditions • Releasing the Ophthalmologist to see the new patients and more complex cases • Cost savings • Orthoptic workforce should have equal opportunity (min 33%) of roles to non-medics in these roles
Elective Care Cataract Centre	Pre/post op cataract assessment	0.65 WTE	4.0 WTE	• Multidisciplinary team working • The PHA estimates that the new elective care centres must have capacity to assess and treat around **9,000 patients per year**.
On Call service / 7 day working	Transformation of services	0.0 WTE	20% increase in WTE	Timely effective treatments, under regional development for all AHPs
Maxillofacial services	Regional Provision	0.0 WTE	2.5 WTE (includes future demand)	Timely effective treatment for orbital injury patients with disturbing visual anomalies

b) Key factors impacting on workforce projections

There are a number of factors impacting on the Orthoptic workforce projections which need to be considered in determining appropriate recommendations as part of this workforce review, this includes:

1. **Financial:** Similar to all other services within the HSC, the Orthoptic Service faces increasing financial constraints. This will impact negatively on the growth of staff numbers to respond to the increasing demand for our services in both established models and in new areas of development.

2. **Increasing Population**: The predicted increase in the population of 4.68% by 2027 with a 28% increase in those aged 65 and over must be taken into consideration when planning the future workforce.
   1.0 WTE required to maintain current core staffing levels.

3. **Brain injury:** Whilst Musgrave Regionally Acquired Brain Injury Unit (RABIU) has beds for 25 inpatients and facilities for 15 outpatients; there is no Orthoptic input unless professionally requested from RABIU team. Each year over 2,000 people in Northern Ireland sustain a brain injury. Brain injuries can be caused by a number of different reasons including falls, road traffic accidents and assault. This can have a life changing effect on the individual, their families and carers. A small pilot study conducted in June 2010 found that 80% of patients tested had previously undocumented eye problems including disorders of motility and squints. Providing a region-wide equitable Orthoptic service will result in better supported independent living for adults surviving brain injury. (See recommendation 2)
   1.25 WTE is required to provide a regional Orthoptic service within this Specialty.

4. **Increasing paediatric population with complex disabilities**: With improving neonatal care the number of those living with learning disabilities continues to rise and it has been highlighted that current one year commissioning is too short to plan long-term strategy for this group. (Learning disability in Northern Ireland:

Where are we now? 22nd August 2017 - 13th November 2017, Michael McVeigh).
A complete pathway of eye care for children attending special schools uses a multidisciplinary service model involving experienced Orthoptists, Orthoptic Assistants and Optometrists. The key elements and benefits of this service are clearly outlined in the See Ability Children in Focus Campaign 2016. The NI Orthoptic Managers would welcome a regionally equitable multi-disciplinary service available to all children attending special schools.

Following a PHA-led scoping exercise in 2016, an evidence-based workforce submission for 0.5 WTE Band 7 Orthoptist plus Optometry services per Trust was made, to provide a multidisciplinary eye service in special schools.

5. **Adult Learning Disability:** Adults with learning disabilities are 10 times more likely to be blind or partially sighted than the general population (RNIB, 2015). Therefore, it is important that this client group is adequately assessed preferably within a primary care setting and considering that a high percentage of this population have a squint/eye motility problem and/or require glasses, the make-up of the eye care team should reflect the professionals best positioned to address these eye conditions.

6. **Implementation of vision screening recommendations:** The DHSSPSNI has endorsed the regional Orthoptic-led vision screening service delivered by School Health in NI. BIOS recommendations "**for an orthoptic-led vision screening programme are evidence-based and provide the standardising approach to screening required by the NSC**." (Advice to public health, local authority and NHS commissioners' vision screening of 4-5 year old children in school May 2015) Whilst the vision screening service is well established within NI, further developments of this service are required as per the BIOS recommendations. For example:-
    - leadership of the personnel delivering the screening the care pathway
    - audit
    - Quality assurance mechanisms for the screening.

7. **Transformational Development: Training advanced practice/career development:** Ophthalmology is a high demand specialty, accounting for approximately 10% of all referrals regionally. As demand on Ophthalmology services grow, the role of Orthoptists and non-medical professionals in providing care in ophthalmic services traditionally delivered by the medical staff has been recognised. **(The Common Clinical Competency Framework for Non-Medical Ophthalmic Healthcare Professionals in secondary Care RCOphthal 2016; BIOS Competency Standards Extended Roles 2016).** The Royal College of Ophthalmologists report **The Way Forward (**January 2017), summarises the likely expansion in demand with between a 20 and 30% increase in workload predicted over the next 10 years for the common ophthalmic conditions of the elderly. These documents indicate how some departments have developed alternative ways of efficient working where all non-consultant dependant tasks are devolved to health care professionals. Extended roles in supporting Ophthalmology/other consultant clinics e.g. Glaucoma, cataracts, Botox, laser, Neurology, etc, are becoming established norms in the profession as a whole. Local commissioners need to be cognisant of the skill set Orthoptists can bring in supporting Ophthalmology Services in areas outside core orthoptics. Regionally, the profession would be keen to align with Ophthalmology in these service developments.

   Within Northern Ireland, an example of extended role working is a Band 7 Orthoptist working in SEHSCT, autonomously undertaking pre and post op cataract assessments and listings for second eye surgery where recognised. This releases the Ophthalmologist to see the more complex patients. The Orthoptist is deemed competent through local training and works within local policy guidelines.

8. **Day working:** At present 7-day working is not provided in any locality within the region. There are potential Orthoptic roles within Stroke Services, Falls Services, Eye Casualty and Maxillofacial Services. Any such development will require significant investment in Orthoptic services to ensure adequate staffing provision.

9. **Increasing care at home:** (acute hospital care at home) Adults surviving longer with co-morbidities will lead to increased demand for Orthoptists to provide domiciliary visits. Warrington and Halton Hospitals NHS Foundation Trust Orthoptic Service provide a domiciliary service as part of their Stroke team. This

is not only for Stroke patients but for patients with MS and Parkinson's disease who are bed or house bound. They work closely with the early supported discharge team and the community MS and Parkinson's nurses. Four Orthoptists work within the Stroke team providing a service to approx. a population of 335,000. SET has a similar population and has 0.2 dedicated to the Stroke service.

10. **Health Promotion:** It is estimated that half of sight impairment in the UK is preventable and early detection of sight threatening conditions, in both adults and children are essential to improve eye health. Orthoptists are ideally placed to support health promotion both the early detection of visual problems e.g. School Nurse vision Screening Programme and in minimising the long term effects of conditions which affect vision e.g. stroke, diabetes, Parkinson's, obesity.

11. **Falls:** 1 in 3 people over the age 65 will experience at least 1 fall per year. The Human cost is loss of confidence, independence, dignity, increased isolation and loneliness. Fractures cost £2.1 billion/pa in the UK. Financial cost of falls due to sight loss is estimated at £25.1 million/pa (RNIB 2011). The Royal College of Physicians has a guidance document "Look Out" Bedside Vision check for Falls prevention. This document was created in association with BIOS, Royal College of Ophthalmologists, College of Optometrists and RCN. However, this tool is currently not adopted in N.I. The Orthoptists as eye movement specialists are best placed to take on this role. In Nottingham University Hospitals NHS Trust, there is an Orthoptic Led inpatient screening service for those who had a fractured hip (0.2 WTE, Band 6). This has led to improved awareness of visual deficits within the Orthopaedic team, less falls during inpatient stays, and better pathways.

c) Future Service Developments

1. **Transformational Development: Training advanced practice/career development:** As well as the roles outlined above, in the UK, Orthoptists take the lead in Virtual clinics, Juvenile Rheumatoid Arthritis Clinics, BOTOX, IV Injections and first theatre assistant in surgery. (The Common Clinical Competency Framework for Non-Medical Ophthalmic Healthcare Professionals in Secondary Care RCOphthal 2016; BIOS Competency Standards Extended Roles 2016). Again, local commissioners need to be cognisant of the skill set Orthoptists can bring in supporting Ophthalmology Services in areas outside core Orthoptics. Regionally, the profession would be keen to align with Ophthalmology in these service developments. (See recommendation 3)

2. **Training for Orthoptists for the Supply and administration of Medicines under exemptions** and potentially future independent prescribing (IP). This will permit Orthoptists to instil eye drops for diagnostic evaluation and testing purposes without the use of Patient Group Directives (PGDs). From 2021, every Orthoptic graduate will have full exemptions training. Education providers will deliver training for Orthoptists qualifying prior to this date via distance learning.

3. Expansion of the **Orthoptic Assistant Role** in line with their roles and responsibilities within other Trusts. Orthoptics would welcome the opportunity to further develop Skill Mix roles within the profession. For example, Band 3 visual field technicians.

4. **Regional Orthoptic Co-ordinator:** to implement SN & HV training, audit & competencies for the testing of school age children (new guidance to improve vision screening for young children Public Health England 2017; BIOS Guidance Documents on Vision Screening 2014). The BIOS Vision Screening Audit (June 2017) data outcome supports a uniform approach to vision screening training throughout the UK and that further analysis of sites delivering screening by screeners trained by Orthoptists is required. The Orthoptic profession in NI would be keen to produce a comprehensive data set in order to identify trends and make informed suggestions regarding vision screening practices.

5. **Regional Orthoptic Research Co-ordinator:** The DEP Research Subgroup and the DEP project board prioritised Children's Vision Screening as one of the 3 main research agendas. 'The current regional orthoptic-delivered school vision screening programme already enjoys excellent uptake so the group focuses on outcomes: what happens post-screening and is uptake of post-screening intervention therapies equitable, or are targeted interventions'. The NI Orthoptic Service would view it as essential that an Orthoptist should lead this research.

6. **Partnerships:** We would welcome further development of strategic partnerships for example with NI Education Authority.

7. **E-Health:** We welcome any regional implementation of E technologies e.g. paperless records (MEDISOFT), virtual clinics, e-referrals, further development of NIECR to incorporate AHP reports & letters to include Orthoptics region-wide. (See recommendation 5)

8. **Visual Habilitation:** Orthoptists should be an integral part of the team (including Education, health and third sector) working with children and young people with visual impairment to maximise the degree of independent living, social inclusion, emotional wellbeing, self-confidence and self-esteem (Quality Standards Delivery of Habilitation Training 2011, Low Vision, Habilitation and Rehabilitation Framework for Adults and Children, Clinical Council for Eye Health Commissioning June 2017).

9. Implementation of the recommendations from **Developing Eye Care Partnerships** 2012-2017 & the RQIA Review 2017 of this strategy addressing:
   - The current waiting list for eye care services, particularly the excessive waiting times for first and follow up outpatient appointments.
   - The proposals for the successor Eye Care Network
   - Existing models and pathways and develop new integrated eye care models & pathways across Northern Ireland. DoH/PHA to ensure that Orthoptics is fully represented in any present or future developments.

Recommendations and action plan

Based on the findings of the review the key recommendations are set out below (Table 4), these have been structured under key headings and will inform the Action Plan.

Table 4; describes the recommendations and action plan

	RECOMMENDATIONS	
UNDERGRADUATE TRAINING	1	• Commissioning of 3 places in Orthoptic undergraduate programmes. This number is based on predicted need (Table 3) of 16.00 WTE over 5 years. This does not include figures for extended practice roles in Ophthalmology which will require additional commissioned places. • Support Services to deliver Orthoptic Clinical Placements in each trust. Clinical capacity is reduced for each placement due to reduced clinic numbers and planning/organisation and teaching requirements. • Funding to support dedicated clinical placement co-ordinators for Orthoptics. • Training required for Orthoptists within each trust to be fully competent to supervise and evaluate students.
REGIONAL EQUITY OF SERVICE PROVISION	2	• After identifying the inequality of services for children with special educational need, discussions are ongoing with Dept. of Education and all Health agencies to address this unmet need. • Extend the roll out of Primary Orthoptic assessment for all stroke survivors. This is in keeping with recommendations from the National Clinical Guideline for Stroke, 5th edition. • Support the further development of extended scope practice in Orthoptics. E.g. Cataract / Glaucoma / Macular. • Extended role for Orthoptists within Paediatric Ophthalmology.
	3	• Exemptions to Medicine Act - Expanding prescribing, supply and administration responsibilities to Orthoptists • Extended role training • Prioritise Post-Graduate (PG) training and secure required funding to support the transformation agenda and Delivering

		Together Strategy to provide opportunities to meet HCPC CPD requirements and support advanced practitioner progression including; • Develop a proactive and robust Post graduate training programme to support advanced clinical and management roles. • Develop Clinical academic, research and consultant roles which will enhance professional leadership across the profession. • Attract investment in the Post Graduate training budget to meet the needs of the transformational agenda.
WORKFORCE DEVELOPMENT & STABILITY	**4**	• Consider proactive succession planning for all levels of staff and provide access to leadership training schemes. • Consider Regional Orthoptic delivery re-structure All Orthoptic Heads of Services are involved in discussions of how best to manage services across NI. Consideration of three options : 1. Status Quo, remain the same as current set up with five Heads of Service in each of the five Trusts 2. Orthoptics Services managed from 2 hubs 3. Orthoptics Services centralised to a one for NI model
WORKFORCE DEMOGRAPHY	**5**	• Robust workforce plans need to be implemented to ensure that the projected workforce deficit caused by an ageing workforce, increased flexible working and staff maintaining a work life balance is addressed. • Plans need to be in place to identify and address gaps in the current service delivery and ensure implementation of best practice and equitable service delivery regionally.
E-HEALTH	**6**	• Consider the need to develop electronic sharing of patient information which is in line with all other eye services.

		Medisoft used currently in regional macular service and planned use for Elective Cataract Centres. • Develop a plan to ensure the current and future workforce are equipped to maximise use of E health technologies.

Stakeholder Engagement

A Stakeholder Engagement Event for Orthoptics was held on 13th April 2018 as an essential part of the co-design and co-production process for this workforce review. Delegates attending the event included service users, AHP Leads, statutory and independent sectors, staff and managers.

The event took the format of interactive e-participation 'Engage' sessions with the discussion focusing on four main topics:

Question 1 – Recruitment – What needs to be done to attract the right people with the right skills into these professions?

Question 2 – Retention – What needs to be done to make the HSC a brand that people aspire to work for?

Question 3 – Workforce Planning Process – Are there any gaps in the process that you would wish to have addressed?

Reflection – Having discussed all of this today, what would you now suggest as the top priority for the AHP workforce reviews to deliver?

Each of the round table groupings at the event were asked to prioritise their responses in each topic and the top responses captured.

The views of attendees at this event have been considered and have played an important part in helping inform the future of this service.

Defining the Plan

Purpose, Aims and Objectives

The main focus of the review is to ensure services across NI are both sustainable and delivered to an appropriate standard. The range of challenges faced by the HSC system has reinforced the need to ensure that the orthoptic workforce is balanced correctly in terms of numbers and skill set, thereby providing effective and responsive services.

To achieve this vision, a number of key actions were set within the Terms of Reference, including:

- Make recommendations on workforce profile to ensure service sustainability
- Make recommendations on recruitment processes to ensure service sustainability and maximum capacity to deliver services
- Make recommendations on measures, including structures and skills, to align and develop information on the orthoptic workforce, to assist with HSC wide service transformation
- Make recommendations to the Department of Health (DoH) via the AHP Workforce Steering Group regarding the commissioning of pre-registration training
- Make recommendations regarding post-registration training requirements
- Provide greater clarity of roles and responsibilities, processes, structures and governance.

Ownership

Relevant professional and workforce leads were identified as nominated members of the AHP Workforce Review Programme Steering Group along with the regional Orthoptic Manager's Forum.

Service user involvement was in line with requirements of the Public and Personal Involvement legislative frameworks.

Assumptions and constraints

Due to the challenging nature in completing a workforce review, it was important to consider any possible assumptions, constraints and/or risks early in the process. A number of assumptions and constraints were identified and measures were taken to help manage these and reduce their implications throughout the process of the review (Table 5).

Constraint/Assumption	Description	Measures Taken
Engagement	Active involvement of key stakeholders is critical at every stage of the review. Engagement will ensure that recommendations made from the review have senior DoH agreement to support implementation.	A Stakeholder Engagement event was held. To inform key stakeholders gain opinion and support. Relevant, findings determined at each stage of the review were also communicated routinely with the Programme Steering Group.
Timeframe and Professional Capacity	Completion of a comprehensive review within a year was likely to prove challenging, particularly due to the competing demands and pressures of those involved.	The development of a programme plan with clear timeframes and responsibilities which shared the work amongst the sub-group members helped manage this.
Access to Data	Orthoptic staff work across a range of settings and deliver a diverse range of service models both uni-professional and multi-professional.	All available information was accessed and utilised in carrying out the review and a process was set to ensure professional sign off and authorisation of the information used.
Future HSC and Political Structures	During this period NI was experiencing system change and uncertainty, particularly within the political and health care arenas, with associated financial uncertainty.	The sub-group based their analysis on key strategic frameworks e.g. the Bengoa Report and 'Delivering Together – Health and Well-being 2026' Framework.

Table 5; reviews the assumptions, constraints and risks identified when completing this workforce review.