

DEVELOPING EYECARE PARTNERSHIPS

Improving the Commissioning and Provision of Eyecare Services in Northern Ireland



October 2012

Contents

ALTERNATIVE FORMATS		4
FOREWORD BY MINISTER EDWIN POOTS, MLA		5
EXECUTIVE SUMMARY		7
SECTION 1	Setting the Context	13
SECTION 2	Common Causes of Sight Loss – <i>Prevalence and Need</i>	21
SECTION 3	Current Service Provision - <i>Roles, Responsibilities, Demand, Access</i>	31
SECTION 4	Eyecare Service Redesign	47
SECTION 5	Implementation	63
Annex 1	Vision 2020 – The Global Initiative for the Elimination of Avoidable Blindness	66
Annex 2	Summary of Strategic Documents	68
Annex 3	Twelve principles of <i>Transforming Your Care</i>	70
Annex 4	Extract from the General Ophthalmic Services Regulations (Northern Ireland) 2007, SR 2007 No. 436	71
Annex 5	Children’s Eye Assessment Flow chart	73
Annex 6	Glossary of Terms	74
Annex 7	Acronyms	78
Annex 8	Bibliography	81

Alternative Formats

This document is available, on request, in alternative formats - Braille, audio, large print, computer disk or as a PDF document. The Department will consider requests to produce this document in other languages. If you require the document in these or other formats please contact:

Telephone: 028 9076 5606
Fax: 028 9076 5621
E-mail: eyecareservicesreview@dhsspsni.gov.uk
Post: General Dental & Ophthalmic Services
DHSSPS
Room D3
Castle Buildings
Stormont
Belfast BT4 3SQ

It is also available at www.dhsspsni.gov.uk

Foreword by Minister Edwin Poots

For most of us, good eyesight is something that we take largely for granted but regrettably that is not the case for everyone. Blindness and visual impairment can have a profound effect on children, adults and families. And with an increasingly ageing population the impact of sight loss or vision impairment will become more evident. Many more people will need to avail of eyecare services and will, quite rightly, expect such services to be locally accessible and provided in a timely manner.

Prevention and early detection of sight-threatening conditions, in both adults and children, are essential if we are to improve eye health. The treatment and management of acute, and longterm eye conditions such as glaucoma, cataract and macular degeneration, can significantly contribute to independence of the individual and to leading a fulfilling life in the community.

The last 10 years have seen a steady increase in demand for inpatient and daycase surgery. Demand for outpatient services has also grown significantly. It is clear that with an aging population such pressure is likely to increase further. Change in the commissioning and provision of eyecare services is essential if we are to deliver high quality, safe and sustainable services in the future.

Clinical leadership and partnership working are essential elements of eyecare service reform. Without the expertise of specialist staff, enhancement of skills, and provision of care closer to home we will not be able to meet the eyecare needs of the population of Northern Ireland.

Development of regional integrated care pathways, with the involvement of primary, community, hospital and third sector organisations, are fundamental to change. To do this we need to maximise the use of resources – both human and financial- and work collaboratively across all sectors.

A number of enablers for change are required to achieve success. These include workforce development, training and supervision arrangements, ICT and timely referral and communication mechanisms.

The approach outlined in this strategy is consistent with best practice, the UK Vision Strategy, *Transforming Your Care*, and the broader public health and quality agendas. It is part of a whole systems approach to reform and modernisation of HSC services.

Change cannot happen without an effective multi-disciplinary partnership approach. This has the potential to improve the quality, accessibility and cost-effectiveness of patient care.

I wish to thank those who contributed to the consultation and the development of this final document.

EDWIN POOTS, MLA

Minister for Health, Social Services and Public Safety.

Executive Summary

Introduction

1. This document sets out the strategic direction for eyecare services in Northern Ireland for the next five years. It builds on the consultation document *Developing Eyecare Partnerships – Improving Eyecare provision in Northern Ireland* which was published for consultation in July 2011. One hundred consultation responses were received.
2. Health and Social Care policy in Northern Ireland is now increasingly based on the premise that services should be delivered, in as far as possible, in or near people's homes, with acute or hospital services reserved for those whose needs cannot be met in any other way. Such an approach is consistent with *Transforming Your Care*¹ which identifies a new model for health and social care; this will drive the future shape and direction of services. For eyecare, this means that there is a need to review the scope and balance of existing services, including the relationship between community optometry, hospital eye services and orthoptic services.
3. Multidisciplinary partnership working is essential to improve the commissioning and provision of eyecare services. The goals of this eyecare strategy are to:-
 - identify potential sight-threatening problems at a much earlier stage;
 - contribute to the independence of adults and maintaining them well in the community, for as long as possible, by improving access to current HSC treatment for acute and/or longterm eye conditions;
 - contribute to the improvement of life chances for children, including those children living with disabilities, through improving access to eyecare services and treatment for acute and longterm conditions; and
 - maximise use of HSC resources in both primary and secondary care services.

¹ Transforming Your Care- A Review of Health and Social Care in Northern Ireland 2011.

4. In the reorganisation of eyecare services it is recognised that patients are partners in care, and require information and support to self manage their eye conditions effectively. Voluntary sector organisations can play a vital role in supporting individuals.

How to Read this Document

5. There are five interlinking sections to this document. Where appropriate, it makes reference to, but does not duplicate, the work of other DHSSPS policies, strategies and frameworks. The DHSSPS wishes to acknowledge that this eyecare strategy draws heavily on other policy, legislation and commissioning documents developed by the Department of Health in England, the Welsh Eyecare Initiative and the Scottish Government.
6. The following paragraphs provide a summary of each section and a list of all objectives to drive service change is included.

Section 1 highlights the aims of the eye care strategy and associated strategic links. It emphasises why eyecare is important. Pivotal to good eye health is the embracing of the wider public health messages, in order to promote good vision health, prevent eye disease and have appropriate and timely clinical interventions to maximise sight. Quality and sustainability of eye services are essential factors to improve health outcomes.

Section 2 highlights the importance of good eye health and the need to preserve good vision for as long as possible. The prevalence of eye conditions in adults increases with increasing age. As the population ages, the number of people living with blindness or with impaired vision will increase. This will have an impact on the quality of life and independence of the individual. In addition, poor vision can increase adverse events such as falls and fractures.

The commonest cause of vision impairment in older people is uncorrected refractive error. In addition there are a range of chronic eye conditions such as cataract, glaucoma, diabetic retinopathy and

macular degeneration. The causes and prevalence of acute eye conditions are listed. Such eye conditions need a timely and accurate diagnosis as some are sight threatening, whilst other acute eye conditions will be resolved with relatively simple treatment within primary care services.

The prevalence of common eye conditions in children is also highlighted and why it is important to intervene early to maximise the potential for good vision. In addition, some children have eye problems as part of chromosomal, genetic and /or other developmental conditions. Such children need integrated care planning arrangements to be put in place. Other children have acute eye conditions, with causes similar to those that occur in adults.

Section 3

highlights the current approaches to the delivery of eyecare services in primary, community and hospital services. These services are delivered by a range of practitioners including high street and hospital/community optometrists, dispensing opticians, orthoptists, ophthalmic medical practitioners, nurses, technicians and ophthalmologists. General Ophthalmic Services (GOS) is demand led and is governed by legislation on what can be provided to the public.

The number of eyesight tests provided within GOS has risen year on year since 2007/8. The current HSC hospital and community eyecare services are under strain due to a range of factors including changing demography, rising demand, staffing vacancies, new technologies and medicines, and successful implementation of screening programmes such as the diabetic retinopathy screening programme generating increased demand and service activity.

Service reform must occur if high quality, safe and sustainable services are to be achieved for members of the public who need access, in order to maximise vision and enhance life chances and

independence. To drive change will require clinical leadership, integrated working and a focus on early intervention, service quality and performance.

Section 4

focuses on designing solutions to improve access and outcomes in the commissioning and provision of eyecare services. Ten eyecare principles underpinning new ways of working are highlighted. Within such an approach leadership, engagement, and governance arrangements are key elements for success. A generic model for eye care services is included. This model complements *Transforming Your Care*, and policies underpinning public health, quality and long-term conditions management.

Integrated care pathways for common eye conditions are identified. To facilitate change in practice, a number of enablers are required including the development of *Eyecare Partnership Schemes* in order to provide enhanced eyecare services, based on population needs, closer to home. Further development of the workforce, enhanced skill mix and better ICT arrangements are key enablers for success.

Patients are partners in care, and require information and support to self manage their eye conditions effectively. Voluntary sector organisations can play a vital role in supporting individuals, their families and carers.

Section 5

focuses on implementation. The DHSSPS has asked the HSC Board and Public Health Agency to co- lead on implementation, working in collaboration with Local Commissioning Groups, HSC Trusts, Integrated Care Partnerships, primary care practitioners and other organisations. Subject to Assembly approval, the DHSSPS will consider taking forward new primary legislation to extend the Listing of individual ophthalmic practitioners who provide HSC funded General Ophthalmic Services. Accountability and financial arrangements for implementation of the strategy are identified.

Objectives

The following is a list of all objectives contained within the document.

1. HSC organisations will collaborate with other organisations to deliver on the aims set out in *Fit and Well - Changing Lives (2012-2022)* and other related strategies, in order to contribute to the promotion of good eye health and prevent eye disease.
2. Through implementation of the Service Framework for Older People (post consultation and subject to the final determination of the relevant standard), HSC organisations will offer multi-factorial, evidence based falls and bone health assessments to older people on an annual basis. This will adopt a case management approach for those at high risk of falls, including eyesight tests and the enhancement of signposting on access to ophthalmic services in primary and community care.
3. In order to promote service quality, the DHSSPS will consider introducing primary legislation which, subject to Assembly approval, will enable the HSC Board to develop and maintain an extended Listing system of individual practitioners involved in the provision of General Ophthalmic Services.
4. The Northern Ireland Sight Test Survey will be re-commissioned in order to fully understand the level and type of demand for sight tests in General Ophthalmic Services, to include referral patterns, demographics, co-morbidities and level of private practice undertaken.
5. An integrated eyecare service model will be implemented which will facilitate a resource shift, with improved inputs, access and outcomes at each level – i.e. primary and community, networked acute care and highly specialist regional and supraregional services.
6. There will be a regional approach to the development of integrated care pathways for long term eye conditions to include glaucoma, cataract, diabetic retinopathy, macular degeneration and low vision; these pathways will adopt the ten principles of eyecare service change in order to enhance access, and improve eye health outcomes.

Pathways for eyecare will ensure that blind/partially sighted certification and registration processes are appropriately conducted.

7. There will be high level regional measurements developed to facilitate the monitoring and evaluation of the new eyecare service model and associated pathways. These will include input, output and outcomes measurements. Data collection will be undertaken in line with data protection principles and information governance.
8. *Eyecare Partnerships Schemes*, to enhance access to diagnosis and treatment closer to home, will be based on population needs. These will be developed regionally and commissioned by the HSC Board working in collaboration with Local Commissioning Groups. These funded schemes will be part of new pathway approaches for the delivery of services for common eye conditions.
9. A regional pathway will be developed for the diagnosis and management of the “acute eye” across the primary, community and hospital interfaces. This pathway will need to consider how best to maximise resources – both human and financial – and will be commissioned and delivered within an appropriate clinical and social care governance framework.
10. Clinical leadership, workforce development, training, and supervision will be essential components of eyecare service reform. This includes the promotion of independent optometrist prescribing, where appropriate to do so.
11. ICT developments will be required to improve referrals, communications and, payment and probity systems. Telemedicine links have the capacity to improve the quality and efficiency of service provision.
12. The HSC Board/PHA working in collaboration with relevant organisations will lead on implementation of the eyecare strategy. The DHSSPS will lead on any legislative change.

Section 1 – Setting the Context for the Eyecare Strategy

Introduction

- 1.1 This document sets out the strategic direction for eyecare services in Northern Ireland for the next five years. It builds on the consultation document *Developing Eyecare Partnerships – Improving Eyecare Provision in Northern Ireland* which was published for consultation in July 2011.
- 1.2 The strategy has drawn on evidence of best practice, including guidance from the National Institute for Health and Clinical Excellence², and the wealth of information, progress, and evaluations undertaken in England³, Wales⁴, and Scotland⁵ on the commissioning and provision of innovative, partnership approaches to eyecare services both in the community and hospital sectors.
- 1.3 The “*Developing Eyecare Partnerships*” consultation document was underpinned by a terms of reference which identified objectives as:-

To produce an Eye Care Strategy for Northern Ireland, and in doing so, to consider:-

- How services can be developed in response to the needs of the population;
- The development of a multidisciplinary networked approach to the delivery of eyecare services;
- The development of referral pathways between primary and secondary care; and
- The optimisation of the primary care resources in the provision of eye care services.

² National Institute for Health and Clinical Excellence, www.nice.org.uk

³ *General Ophthalmic Services Review (2007)* Department of Health England; *Commissioning Toolkit for Community based Eyecare Services (2007)*, Department of Health England.

⁴ *The Welsh Eye Care initiative*, funded by the Welsh Government; Also, *Wales Vision Strategy, Implementation Plan 2010-2014*, Welsh Advisory Group, linked to the UK Vision Strategy;

⁵ *Review of Community Eyecare Services in Scotland: Final Report (2006)*. Scottish Government.

Why Eye Health is Important for Adults and Children

1.4 For most adults, good eyesight is something that we take largely for granted. Many people only notice a deterioration in their eyesight from their early 40s and only then consider visiting their optometrist or GP to discuss it. The determinants of good eye health include:-

- An awareness of the impact of a healthy lifestyle on eye health, e.g. the links with smoking, nutrition, obesity (mainly linked to development of type 2 diabetes), and high blood pressure resulting in retinal vein occlusion and hypertensive retinopathy and poorer vision in later life;
- An understanding of the risk factors for sight threatening conditions by people in certain risk groups; e.g. the increased risk for those with a first degree relative with glaucoma; the fact that diabetes is more prevalent in certain ethnic minority groups, for example those of South Asian descent and African Carribeans;
- Regular sight tests, to enable people to make the most of their visual potential and to identify factors that might require further investigation or treatment;
- Effective eyecare services that are accessible to all of the population including those who are at risk of exclusion e.g. minority groups, frail and elderly people and people living with disabilities; and
- Effective services in other areas that have an impact upon, or will be affected by, visual health and vision services – e.g. diabetic services, services for people who are at risk of complications arising from poor control of diabetes, or those who have had falls⁶.

1.5 The causes and implications of visual impairment in children are very different to that of adults. For most children visual impairment is present from birth or has an onset early in life. About 50% of cases of impairment of vision are due to damage to the eyes or optic nerves, and 50% are due to damage to parts of the brain responsible for vision⁷. Unlike adults where many people were sighted before their vision

⁶ Adapted from *Commissioning Toolkit for Community Based Eyecare Services* (2007), Department of Health, England.

⁷ *Review of Community Eyecare Services in Scotland*; Final Report December 2006.

deteriorated, impaired vision from birth or early childhood has the potential to hinder learning and development, impair communication and mobility and can have a profound effect on the life chances of the child as they progress from childhood through their teenage years and into adulthood. Strategies to assist children early in life are, therefore, different to those of adults and depend, to some extent, on whether the visually impaired child has ever had normal vision and whether or not the child's developmental milestones are normal e.g. the child may have a significant learning disability and/or other complex disabilities such as impaired hearing or physical disability. A failure to address and manage impaired vision in children can have long term consequences including permanent vision loss, social integration difficulties and impaired educational achievement.

Aims of the Eyecare Strategy

- 1.6 The aim of this document is to set the strategic direction for change in the commissioning and provision of HSC eyecare service to -
- help to identify potential sight-threatening problems at a much earlier stage;
 - contribute to the independence of adults and maintaining them well in the community, for as long as possible, by improving access to current HSC treatment for acute and/or longterm eye conditions;
 - contribute to the improvement of life chances for children, including those children living with disabilities, through improving access to eyecare services and treatment for acute and longterm conditions; and
 - maximise the use of resources in both primary and secondary care services.

Strategic Links

- 1.7 The strategy also links to other DHSSPS strategic documents and frameworks which have a direct or indirect impact on promoting good vision health, prevention of sight loss, early intervention and improving access to treatment. Key documents either recently endorsed by DHSSPS or soon to be published include:-

Vision 20/20 - WHO Global Initiative for elimination of avoidable blindness which led to the UK Vision Strategy in 2008;

Fit and Well- Changing Lives - A 10 year public health strategic framework (July 2012 consultation);

Transforming Your Care – A Review of Health and Social Care in Northern Ireland. (December 2011);

Ten Year Tobacco Control Strategy (February 2012);

Diabetes – (There will be an evaluation of the CREST Diabetes document conducted in 2012);

Cardiovascular Service Framework (2009);

Learning Disability Service Framework (2012);

Older People’s Service framework (for consultation in September 2012);

Children’s Service Framework (to be published for consultation);

Physical and Sensory Disability Strategy (February 2012);

Living with Long-term Conditions – A Policy Framework (2012);

Healthy Futures (2010-2015);

Healthy Child, Healthy Future (2010);

Aging in an Inclusive Society (OFMDFM - 2012);

Quality 2020:- A ten year strategy for health and social care in Northern Ireland (2012); and

DHSSPS Commissioning Plan Direction - produced annually.

- 1.8 An overview of these documents is provided in Annex 2. It is not the intention to replicate any of the recommendations/actions contained in these strategic documents in this eyecare strategy but rather to concentrate on the partnership approaches

between primary and secondary care to deliver on the aims of the strategy, as identified above. However, of particular relevance to the Eyecare Strategy are the following five documents:-

- a) **Vision 20/20 strategy** - this is a global multiagency initiative which is jointly led by the World Health Organisation and the International Agency for the Prevention of Blindness. This strategy was endorsed by the UK Government in 2003 and subsequently endorsed by the Minister for Health, Social Services and Public Safety (see Annex 1). The central aim of Vision 20/20 is to eliminate avoidable blindness worldwide by 20/20. Locally, a multiagency Vision Strategy Steering Group oversees implementation; the Royal National Institute for the Blind Northern Ireland (RNIB) chairs this Group.
- b) **Transforming Your Care (TYC)** – A Review of Health and Social Care in Northern Ireland was published in December 2011. This pivotal document sets out ninety nine recommendations for change which have been supported by the Minister for Health, Social Services and Public Safety. This Review set out twelve principles which underpin any HSC service reconfiguration; these are included in Annex 3. At the heart of these principles is *“Placing the individual at the centre of any model by promoting a better outcome for the service user, carer and the family”*.

Any change in the model of eye care provision in Northern Ireland will take account of these twelve principles. Part of the TYC approach is to deliver the right care, in the right place, at the right time. There will be a greater focus on early intervention and the commissioning and delivery of services closer to home, where it is safe and appropriate to do so. Partnership working across HSC organisations and with the community, and third sectors is an integral part of the TYC approach. To support this, TYC recommends the development of Integrated Care Partnerships (ICPs), anticipated from 2012 onwards, to support better integration and co-operation between local providers and a networked approach to the delivery hospital services. The initial focus of ICPs would include frail, older people and the management of long term conditions, including diabetes. Such emphasis on older people and diabetes resonates well with the

promotion of good vision health and the maintenance of sight to enhance independence, and quality of life for individuals.

c) **Fit and Well – Changing Lives 2012-2022** - is a cross governmental draft public health strategy which was issued for consultation in July 2012. The Eyecare Strategy is inextricably linked to this public health strategic framework, which has at its heart actions to improve health and to reduce health inequalities. It uses a “life course” approach to analyse and understand the effects of health determinants and influences across time. It documents these determinants of health and the main interventions which can be applied to health promotion, disease prevention, diagnosis and treatment, as well as rehabilitation. In doing so it recognises the importance of whole systems approaches and intersectoral working. The public health framework recognises the importance of good eye health. It has a range of short and long-term outcomes which, if implemented, will contribute to the prevention of eye disease, earlier intervention and access to treatment. More specifically, the draft document has outcomes for:

- Children:- *“Eye health issues in children will be assessed and identified in readiness for starting school through a comprehensive visual examination”;*
- Older adults:- *“older people have access to appropriate high quality, safe, sustainable and accessible hospital, primary, and community health services (including pharmacy, dental and ophthalmic); and*
- General:- *Deliver targeted public health campaigns regarding preventable hearing and sight loss, emphasising the linkages between smoking, obesity, diabetes and sight loss, and the importance of regular sight testing”.*

The Eyecare Strategy will need to align itself to these public health outcomes, and once finalised embed an “outcomes” approach into eyecare services’ redesign.

Objective 1

HSC organisations will collaborate with other organisations to deliver on the aims set out in *Fit and Well - Changing Lives (2012-2022)* and other related strategies in order to contribute to the promotion of good eye health and prevent eye disease.

- d) **Quality 2020** - Safety and quality underpins all health and social care services. The focus on safety and quality has several drivers, including the outcomes of local, national and international research, the dissemination of best practice within and between systems, and the increasing demand from the public for improvements in the quality of services. There have been major developments in evidence-based standards and guidelines over the past few years, many of which have been endorsed as best practice by the DHSSPS. NICE guidance and regional standards such as DHSSPS Service Frameworks will lead to more consistent, evidence-based practice. The Department's ten-year *Quality 2020 Strategy* identifies quality under three main headings:
- Safety – avoiding and preventing harm to patients and clients from the care, treatment and support that is intended to help them;
 - Effectiveness – the degree to which each patient and client receives the right care (according to scientific knowledge and evidence-based assessment), at the right time, in the right place, with the best outcome; and
 - Patient and Client Focus – all patients and clients are entitled to be treated with dignity and respect and should be fully involved in decisions affecting their treatment, care and support.
- e) **Commissioning Plan Direction** - Under the Health and Social Care Reform Act (Northern Ireland) 2009, the DHSSPS is required to produce an annual Commissioning Plan Direction. This sets out the Minister's priorities and requires the HSC Board and Public Health Agency to publish a commissioning plan in response to these priorities and statutory obligations. This includes details on how the HSC Board/PHA intends to take forward the design and delivery of services developed around the needs of patients through strengthening local commissioning and performance management systems, and the allocation of resources. Such an approach includes the commissioning and delivery of eyecare services in primary and secondary care.

Welfare Reform

- 1.9 From October 2013, as part of the wider Welfare Reform programme, Universal Credit will replace a number of existing income related benefits which currently entitle

recipients to receive free sight tests and vouchers towards the cost of glasses or contact lenses. The Department is currently engaged with the Department for Social Development and other GB Health Departments in order to model the impact of Universal Credit on the delivery of free eye care services.

Drivers for Change

- 1.10. In addition to the above strategic drivers, there are a number of other important drivers for change which emphasise that maintaining a “status quo” approach is not an option for the commissioning and provision of high quality, sustainable eye care services in the future. These drivers include changes in demography with an increase in need, especially for older people and children with complex disabilities living with visual impairment.
- 1.11 Pressures on eyecare services, especially in HSC secondary care, are already substantial and demographic changes will only exacerbate an already overloaded service model of care. In such circumstances, if the current model of service provision is maintained, it would be hard to maximise efficiency and effectiveness, in line with local and national evidence based practice, such as NICE clinical guidelines, and models of eyecare which have demonstrated service improvements in other parts of the UK.

Summary

- 1.12 Section 1 highlights the aims of the eye care strategy and associated strategic links. It emphasises why eyecare is important. Pivotal to good eye health is the embracing of the wider public health messages, in order to promote good vision health, prevent eye disease and have appropriate and timely clinical interventions to maximise sight.
- 1.13 Strategic, population and service drivers for change make it essential that HSC eyecare services change in order to meet rising demand and maximise the use of precious resources- both human and financial. The next two sections of the document deal with the impact on current service provision of changing demography, common causes of sight loss, and the associated pressures, arising from changing demand, activity and performance.

Section 2 – Common Causes of Sight Loss – Prevalence and Need

Introduction

- 2.1 This section deals with the prevalence of common causes of sight loss and visual impairment in adults and children, and how a changing population in Northern Ireland will increase the need for eye care services. Most of this need arises from uncorrected visual impairment presenting in older people causing reduced independence and vulnerability, and an increasing prevalence of chronic eye conditions in adults. There are also a number of acute eye conditions in both adults and children which are common, some of which can be sight threatening but most are not. In addition, low vision can also be a component number of other systemic conditions including stroke, diabetes, high blood pressure, cancer, arthritis, and a range of neurological conditions.
- 2.2 There are also common eye conditions in children which require specific and timely intervention. Many of these present early in life through detection programmes, for example, through health visiting and school nursing programmes, and others are part of more complex disorders including those arising from genetic or chromosomal abnormalities; these latter conditions are managed through integrated care pathway approaches for those living with complex disabilities. Children can, of course, also present with acute eye conditions, with similar causes to that of adults.
- 2.3 Major eye trauma is also a significant cause of morbidity in the NI population. This eye trauma mainly results from road traffic accidents, leisure activities, and occupational injury. This document does not intend to deal with major eye trauma nor with the management of complex disability, re-ablement or the social care aspects of living with visual impairment. However, it does acknowledge that partnership working across Programmes of Care⁸ is required to meet the needs of such individuals – both children and adults. This approach has already been addressed within the Physical and Sensory Disability Strategy (2011). Therefore,

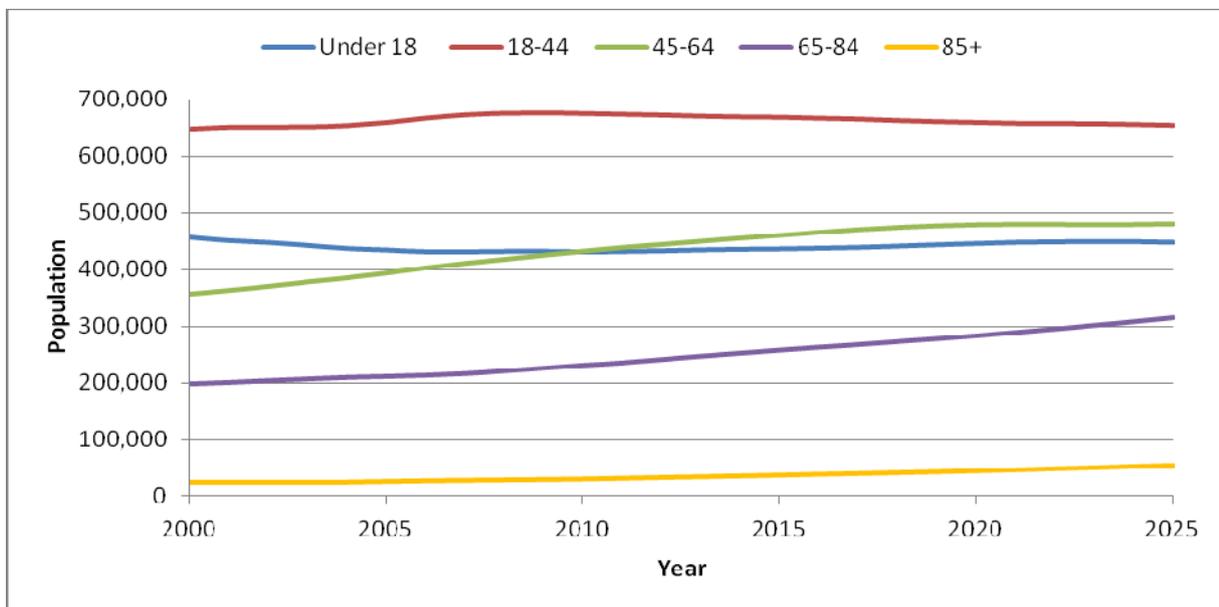
⁸ There are 9 Programmes of Care which form the basis for commissioning/ provision of services, e.g. older people, maternity and child health.

this eyecare strategy will concentrate on improving the commissioning and provision of eyecare services, by enhancing access, and earlier intervention and treatment – i.e. a “shift left” approach. The following paragraphs set out in more detail the need for change and highlight how specific conditions impact on the lives of individuals and their families.

Changing Demography

2.4 The current population in Northern Ireland is 1.8 million (based on 2010 mid-year estimates). By 2025 the population is expected to rise by around 8% to 1.95 million. In addition to this upward population trend, the age distribution will change. There are currently 260,500 people aged 65 years and over in the population, an increase of 18% since 2000, and this number is expected to increase by 42% (or 109,071 people) by 2025. Of this figure, the largest rise is in the 65-84 years population (an estimated increase of 83,586 people or 36%) and the steepest rise is in the 85 years and over population (an estimated percentage increase of 86% or 25,485 people).

Figure 1 – Mid-year Estimate of Population and Projections 2000-2025 for NI by Age Group



2.5 Associated with an ageing population is an increase in the incidence of illness and disability, both of which have personal and social consequences.⁹ Much of what is known of the epidemiology of sight loss is gleaned from research studies in the UK¹⁰, USA¹¹, Europe¹² and Australia¹³. The *Cost of sight loss in the UK - Campaign report No 23* (published in 2004 by RNIB) estimated 1.1 million people in the UK as blind or partially sighted¹⁴. By 2050 it is estimated that, as a result of ageing and other systemic disease associated with sight loss, 5.2% of the UK population will be registrable as having sight loss or severe sight loss. Within Northern Ireland, proportional figures equate to 51,000 and 85,000 respectively.

Persons Registered as Blind, Partially Sighted and Visually Impaired

2.6 In July 2012, there were 9000 people registered as blind, partially sighted, and visually impaired in Northern Ireland. This information has been obtained from HSC Trusts who have responsibility for the completion of the relevant documentation for registration.

Table 1 – Persons Registered as Blind, Partially Sighted and Visually Impaired at July 2012

	Age (years)	Number of Persons Registered as			Total
		Blind	Partially Sighted	Visually Impaired	
Northern Ireland	0-16	83	98	99	280
	16+	3,166	2,051	3,579	8,796
	Total	3,249	2,149	3,678	9,076

The information recorded by HSC Trusts is not a register of all blind sighted or visually impaired people as some may refuse consent to add their names to the HSC Trust records.

⁹ *Ageing populations: the challenges ahead*. Christensen K, Doblhammer G, Rau R, Vaupel JW. Lancet. 2009 Oct 3;374(9696):1196-208. Review.

¹⁰ *Causes of visual impairment in people aged 75 years and older in Britain; an add-on study to the MRC Trial of Assessment and Management of Older People in the Community*. Evans JR, Fletcher AE, Wormald RP; MRC Trial of Assessment and Management of Older People in the Community. Br J Ophthalmol. 2004 Mar;88(3):365-70.

¹¹ *Changes in visual acuity in a population over a 15 year period: the Beaver Dam Eye Study*. Klein R, Klein BE, Lee KE, Cruickshanks KJ, Gangnon RE. Am J Ophthalmol. 2006 Oct;142(4):539-49.

¹² *Age-Specific Prevalence and Causes of Blindness and Visual Impairment in an Older Population*. Klaver CC, Wolfs RC, Vingerling JR, Hofman A, de Jong PT. Arch Ophthalmol. 1998 May;116(5):653-8.

¹³ *Five-Year Incidence of Bilateral Cause-Specific Visual Impairment in the Melbourne Visual Impairment Project*. Dimitrov PN, Mukesh BN, McCarty CA, Taylor HR. Invest Ophthalmol Vis Sci. 2003 Dec;44(12):5075-81.

¹⁴ *The Cost of Sight Loss in the UK – RNIB – Campaign report 23*. ISBN 1 85878 631 2.

- 2.7 At the time of writing, certification processes and responsibilities are under review in other parts of the UK, notably Scotland. It is important that the certification process ensures that patients are offered certification and registration at the right time and with the right information and support. Therefore, the development of care pathways for longterm conditions, as recommended within this document, will include steps to ensure that registration and certification is managed appropriately.
- 2.8 It is acknowledged, however, that blind and partially sighted registers do not account for all those in the population who have sight loss. Reports suggest that currently the actual numbers of people in the population affected by blindness or visual impairment are likely to be twice as high as those appearing on the register (Robinson et al 1994¹⁵) with a particularly strong under-representation of those with elderly onset Age-Related Macular Disease (AMD). There are a number of reasons why people may not be registered including individuals withholding consent for their names to be put on the register, lack of awareness of the benefits which may accrue from being registered, and failure by the ophthalmology service to complete the necessary documentation.

Chronic Eye Conditions in Adults

- 2.9 The common chronic eye conditions in adults, particularly older adults are:-
- Uncorrected refractive error;
 - Cataract;
 - Age related macular degeneration;
 - Glaucoma;
 - Low vision arising from a variety of causes; and
 - Diabetic retinopathy.

¹⁵ *Unrecognised and unregistered visual impairment.* Robinson R, Deutsch J, Jones HS, Youngson-Reilly S, Hamlin DM, Dhurjon L, Fielder AR. Br J Ophthalmol. 1994 Oct;78(10):736-40.

- 2.10 Uncorrected Refractive Error- Recent epidemiological data on the major causes of visual impairment (VI) in western society indicate that uncorrected refractive error is a common cause of sight loss in the elderly, affecting up to 30% of the older age group¹⁶. Dealing with this problem and the associated social consequences requires a public health initiative and the provision of appropriate and accessible GOS sight tests and the resultant spectacles supplied.
- 2.11 Cataract - A second major cause of visual impairment is cataract, which will develop in most people as they age, but will only result in long-term sight loss in a very small proportion of patients¹⁷. In many cases the result is a change in refraction and a small deterioration in vision. Initially, the individual needs new glasses and advice, which can be dispensed within primary care through General Ophthalmic Services. Cataracts arise when the lens within the eye becomes cloudy. This can occur in one eye only or in both eyes at the same time. Vision deterioration is gradual; therefore, many people tend not to know they have one until they attend their optometrist for a review of their glasses prescription.
- 2.12 Age –related macular degeneration (AMD) – This is another cause of age-related visual impairment which requires early ophthalmic assessment. This is more prevalent amongst women and in smokers and also in some hereditary conditions and through long-term exposure to direct sunlight. The macula is affected which is the central part of the retina causing progressive loss of central and detailed vision.
- 2.13 There are two types of age related macular degeneration – known as wet and dry. Wet AMD relates to the leakage of fluid from new blood vessels which have formed under the macula. Vision can deteriorate in a number of weeks, usually manifesting itself as central distortion, but it can be restricted to one eye and therefore may not be readily apparent. Some forms of wet AMD are amenable to treatment and require access to rapid assessment following a timely referral usually from, for example, a high street optometrist. However, over 85-90% of people have dry AMD. In dry AMD the vision may deteriorate slowly or remain stable for a long period of time.

¹⁶ *Prevalence of Visual Impairment in the United States*. Vitale S, Cotch MF, Sperduto RD. JAMA. 2006 May 10;295(18):2158-63.

¹⁷ *Incidence of Age-Related Cataract*. The Beaver Dam Eye Study. Klein BE, Klein R, Lee KE. Arch Ophthalmol. 1998 Feb;116(2):219-25.

2.14 Glaucoma - An additional cause of progressive visual impairment is glaucoma which results in a loss of peripheral vision which, in the early stages, is undetectable by the patient. Only by undertaking a comprehensive sight test can the signs of glaucoma be detected at an early enough stage to render treatment effective and thus prevent unnecessary sight loss. Glaucoma is common in older age- affecting about two in every hundred people over the age of 40. This increases over the age of 70 to one person in ten¹⁸. There are two main types of glaucoma:-

- Open angle glaucoma (or chronic glaucoma); and
- Acute angle closure glaucoma (or acute glaucoma).

2.15 Open angle glaucoma is by far the most common type of glaucoma (90%). It usually develops slowly and the loss of sight is painless, very often causing a loss of peripheral vision first but central vision is affected at a later date.

2.16 Low Vision is described as *“impairment of visual function where full remediation is not possible by conventional spectacles, contact lenses or medical intervention, and which causes restriction in that person’s everyday life”*. The majority of people with low vision are older people. Most people with low vision retain some sight. There is a strong association between low vision and quality of life. There is also a correlation between falls and low vision. The cause of low vision may be multifaceted including age related macular degeneration.

2.17 In 2010/11, there were 3,839 admissions to hospital of people aged 65 years and over as a consequence of a fracture. The risk factors for falls in older people are many and varied, but include visual impairment. Poor sight can increase the risk of a fall and the resultant fracture can often lead to loss of independence and sometimes death. Of the 3,839 admissions for a fracture during 2010/11, the majority (2,168, 56.5%) were for hip fractures. Hip fractures alone, which cause significant morbidity, mortality and cost to health and social services, have been linked to visual impairment. One study found that in hip fracture patients, 33% were visually

¹⁸ *Commissioning Toolkit for Community Based Eyecare Services* (2007) Department of Health, England.

impaired (6/18 or worse in both eyes), and 58% had a distance visual acuity of 6/18 or worse in at least one eye^{19, 20}.

A Service Framework for Older People

- 2.18 At the time of completion of this eyecare strategy, a service framework for older people was launched for consultation in September 2012 and will be finalised in 2013. This service framework sets HSC standards (and performance indicators) which will enhance healthy aging, social inclusion and improvement in the quality of life and independence of the older person.
- 2.19 Included in this framework are standards regarding the provision of information and advice, and the signposting of older people to multisectoral services and support. This is a real opportunity to include information on the importance of good eye-health, the need for regular eyesight tests, and which services are available in the community to improve low vision. NICE has emphasised the importance of visual assessment in patients who have fallen²¹.

Objective 2

Through implementation of the Service Framework for Older People (post consultation and subject to the final determination of the relevant standard), HSC organisations will offer multi-factorial, evidence based falls and bone health assessments to older people on an annual basis. This will adopt a case management approach for those at high risk of falls, including eyesight tests and the enhancement of signposting on access to ophthalmic services in primary and community care.

The Acute Eye

- 2.20 An acute eye can occur at any age and can be extremely painful. Some eyes require immediate treatment, if sight is to be retained, and others are easily treated or require

¹⁹ *The Importance of Vision in Preventing Falls* The Royal College of Optometrists and British Geriatric Society, June 2011

²⁰ Squirell DM, Kenny J, Mawer N et al. *Screening for visual impairment in elderly patients with hip fracture: validating a simple bedside tool* Eye 2005 19 55-59

²¹ *Falls: the Assessment and Prevention of Falls in Older People*. Clinical Guideline 21, NICE, 2004.

no treatment at all and resolve within a few days. Common causes of an acute red eye are:

- Conjunctivitis – viral, bacterial, allergic or occasionally chemical;
- Blepharitis – as above, but involving the eyelids;
- Subconjunctival haemorrhage (blood under the outer surface of the eye) –for example, due to minor trauma or, more seriously, due to poor control of anticoagulation treatment – e.g. warfarin;
- Corneal abrasion – arising from minor trauma;
- Foreign body – potentially a major or minor injury, e.g. - due to an occupational injury such as in welding or, for example, a minor injury due to dust particles in the eye;
- Corneal ulcer- arising from infection, trauma or as part of a chronic condition;
- Acute glaucoma- as above, or presenting as a red eye - para 2.14 refers;
- Iritis – an inflammatory condition inside the eye in an otherwise healthy person or as part of another clinical condition; and
- Keratitis- an inflammatory condition of the cornea arising from several causes.

2.21 People with the above conditions will present in a variety of ways such as to a GP, pharmacist or optometrist in primary care or through a hospital emergency department or GP out of hours services. There is no comprehensive source of prevalence data on these conditions in either primary or secondary care. The major issue for clinicians is being able to differentiate between the eye conditions which are easily treatable in primary care and those which are potentially sight-threatening and need urgent referral to an ophthalmologist or other specialist practitioner.

Eye Conditions in Children

2.22 Strabismus (squint) is the name given to a condition in which one eye views an object, but the other looks away to a different point. There are three types of

strabismus- convergent, divergent and vertical. Strabismus affects about 5% of children under the age of 5 years and can be associated with amblyopia.

2.23 Amblyopia (lazy eye) is the most common visual disorder of childhood (4.4% of population: Public Health 1991²²). Universal screening of all 4-5 year olds is undertaken for this treatable and preventable eye disorder. The visual part of the brain continues to develop until the age of about 8 years. So amblyopia can usually be reversed up to this age. It is important that amblyopia is identified early because it is more easily and quickly reversed in younger children. Correction of any significant refractive error is also an important part of treatment which is usually supervised by an orthoptist. In NI there is an Orthoptic-led service and the universal children's screening programme has the highest uptake in the UK. Refractive errors are more prevalent in NI children than in other similar population groups (O'Donoghue et al British Journal Ophthalmology 2010²³).

2.24 Other childhood conditions - Although rare, all complex eye conditions in children require early detection and treatment in order to optimise visual outcomes. Whilst many of the congenital retinal dystrophies (Stargardt's, Best's) may not present until the second decade, counselling and rehabilitation services should be identified in advance of visual symptoms.

Other conditions requiring critical early detection and treatment include:

- *Retinopathy of prematurity (ROP)*, presents to some degree in about 16% of UK premature births, but rising to as much as 65% of all infants less than 1250g birth weight. 80% of all babies born ten weeks early will suffer some degree of Stage I retinopathy, which usually resolves spontaneously. Stage III retinopathy onwards will usually require laser, with around 80% of these babies doing well, but requiring regular monitoring. All babies less than 32 weeks gestation will be screened by an ophthalmologist. It is worth remembering that the incidence of many congenital eye conditions increases with prematurity. Advances in antenatal care create challenges for all clinicians, including ophthalmic.

²² The Incidence and Prevalence of Amblyopia detected in childhood. Thompson JR ,Woodruff G ,Hiscox FA ,Strong N ,Minshull C. Public Health;105;455-462.

²³ Refractive error and visual impairment in school children in Northern Ireland – O'Donoghue L, McClelland JF, Logan NS, Rudnicka AR, Owen CG, Saunders KJ. Br JOphthalmol 2010 94 (9) 1155 – 1159.

- *Congenital Cataract*, with an incidence of around 2.5/10000 and either unilateral or bilateral.
- *Congenital nystagmus*, incidence around 1/1000-2000.
- *Congenital glaucoma*, incidence 1/18500, a small number of which are inherited, the vast majority the cause is unknown.

Summary

- 2.25 Section 2 highlights the importance of good eye health and the need to preserve good vision for as long as possible. The prevalence of eye conditions in adults increases within increasing age. As the population ages, the number of people living with blindness or with impaired vision will increase. This will have impact on the quality of life and independence of the individual. In addition, poor vision can increase adverse events such as falls and fractures.
- 2.26 The commonest cause of visual impairment in older people is uncorrected refractive error. In addition there are a range of chronic eye conditions such as cataract, glaucoma and macular degeneration. The causes and prevalence of acute eye conditions are listed. Such eye conditions need a timely and accurate diagnosis as some are sight threatening, whilst other acute eye conditions will be resolved with relatively simple treatment within primary care services.
- 2.27 The prevalence of common eye conditions in children is highlighted and why it is important to intervene early to maximise the potential for good vision. In addition, some children have eye problems as part of chromosomal, genetic and /or other developmental conditions. Such children need integrated care planning arrangements to be put in place. Other children have acute eye conditions, with causes similar to those that occur in adults.
- 2.28 Early intervention and timely access to treatment in both primary and secondary care are fundamental components of high quality eye-care services, if poor vision is to be detected and treatment started as early as possible. The next section outlines current service provision, roles and responsibilities and HSC performance.

Section 3 – Current Service Provision – Roles, Responsibilities, Demand and Access

Introduction

- 3.1 This section outlines the current eye service provision in primary, community and hospital sectors and explains that the majority of eyecare services, for both adults and children, are delivered in the community (“high street”) through General Ophthalmic Services (GOS). However, there are also eyecare services provided by the HSC Trusts in the community for individuals who have been referred to these services – for example, eyecare services delivered in health and care centres, - and more specialist secondary care services delivered either as outpatient, day case or inpatient hospital services. The roles and responsibilities of each component part of the eye care service is explained in more detail in this section. If services are to be sustainable in the future and access improved then integrated working in primary, community and hospital services needs to be further enhanced.
- 3.2 The previous sections outlined why prevention and early intervention to maximise visual health are important. HSC eyecare services will need to change to be able to cope with increased pressure arising from demographic change in order to provide the population with a modern eyecare service which draws on best practice, technological advances, enhanced practitioner roles and partnership working. However, the current service is already under strain; this section also documents facts and figures relating to increasing service demand and activity over the last five years.
- 3.3 Eyecare services are delivered by a range of practitioners in Northern Ireland including:-
- optometrists;
 - dispensing opticians;
 - ophthalmic medical practitioners(OMPs);

- general medical practitioners(GPs);
- orthoptists;
- ophthalmologists; and
- ophthalmic nurses.

The following paragraphs outline the roles and responsibilities of these professionals.

Current Roles and Responsibilities in Primary Care

- 3.4 Recent figures obtained from the Business Services Organisation (BSO) show that in Northern Ireland there are 541 high street optometrists, and 41 dispensing opticians. These are independently contracted Health and Social Care (HSC) practitioners in the sense that they run independent businesses (deriving income from the provision of services to both private and HSC funded patients).
- 3.5 *Optometrists* are trained to test sight, give advice on visual problems, and prescribe and dispense glasses, contact lenses and low vision aids. Optometrists undertake a minimum of three years of undergraduate training followed by a year of training and professional assessment in optometric practice and hospital eye services. Over the next five years there will be growing numbers of optometrists with higher professional qualifications.
- 3.6 *Dispensing opticians* train for a minimum of three years and are qualified to advise on and supply all types of spectacles and low vision aids. Some also hold specialist qualifications to fit contact lenses. To be a practicing optometrist or dispensing optician, individuals need to be registered with the General Optical Council (GOC)²⁴ and participate in continuing professional development as specified by the GOC. The services these professionals provide in the community are governed by the local General Ophthalmic Services Regulations (Northern Ireland) 2007 (“the GOS regulations”). They receive payments through BSO for HSC services provided to the public when such services are compliant with Regulations. If during the sight test the optometrist observes signs of injury or disease, or an eye abnormality, the patient

²⁴ General Optical Council registers optometrists, dispensing opticians, student opticians and optical businesses in the UK. www.optical.org.

may be referred, as appropriate, to Hospital Eye Services (HES) for further testing, diagnosis and treatment. The GOS Regulations facilitate direct referral but normal practice is that the patient is referred via the GP²⁵.

- 3.7 Arrangements are made by the HSC Board in accordance with the GOS regulations for the provision of these general ophthalmic services. They are not commissioned services and, similar to other primary care services, are demand led. However, unlike GP services, there is no contract in place to specify service quality or type of service provision nor is there a Performer's List in place. These List arrangements for GPs place certain requirements upon each GP which must be fulfilled to enable the GP to continue to practice in Northern Ireland. Such a listing arrangement in General Ophthalmic Services(GOS) would extend existing systems and would enhance the quality of services as it would require all practitioners (including locums) to be maintained on a List as well as maintaining the current arrangement of knowing which practices/ corporate bodies provide such ophthalmic services.

Objective 3

In order to promote service quality, the DHSSPS will consider introducing primary legislation which, subject to Assembly approval, will enable the HSC Board to develop and maintain an extended Listing system of individual practitioners involved in the provision of General Ophthalmic Services.

- 3.8 There are also 21 *ophthalmic medical practitioners* (OMPs). OMPs are medically qualified practitioners who have undertaken at least two years postgraduate training in ophthalmology. OMPs are able to issue HSC prescriptions for glasses in the same way that optometrists do. Some OMPs work as HSC employed practitioners either in the hospital or community setting whilst others may work in general practice.
- 3.9 *General Practitioners* (GPs) provide primary medical services for approximately 99% of patients in NI. The GP is one of the first ports of call for many patients with eye conditions. Eye problems account for 1.5% of general practice consultations in the UK with a rate of 50 consultations per 1000 population per year. GPs thus have a

²⁵ General Ophthalmic Services (Northern Ireland) Regulations 2007, SR 2007 No. 436 – see Annex 4.

key role, as part of the primary healthcare team, in the prevention, early intervention and treatment of eye problems. The Royal College of General Practitioners (RCGP), in its Curriculum Statement 15.5 on Eye Disorders (2010)²⁶, stated that GPs should have the skill to both manage and coordinate strategies for the detection and treatment of eye problems. Crucial to this is the fact that GPs have access to personal, family and drug therapy related histories for each of their patients. In Northern Ireland, the Diabetic Retinopathy Screening Programme hinges on the continual updating of GP diabetic registers. In addition, the importance of the GP's vital role in children's health surveillance, including visual development, is acknowledged. GPs also have a gatekeeper's role to secondary care ophthalmology services. In addition, many patients who have been seen by a GOS optometrist and need referral to a hospital outpatient service achieve this through via their GP.

- 3.10 *General practitioners with a special interest in Ophthalmology*- There is not yet a nationally recognised training scheme for GPs who wish to develop an interest in ophthalmology although there are a small number of GPs who combine general practice with this special interest either through working as an OMP or being an employee of a HSC Trust, having demonstrated appropriate skills and competencies.

Current Roles and Responsibilities in HSC Hospital and Community Services

- 3.11 *Optometrists and OMPs* can also be HSC Trust employees working either in HSC community or hospital settings. They work as part of a HSC eyecare team and provide similar services as identified in para 3.5-3.8 above, with involvement in specialist and low vision clinics. Hospital optometrists see about 18,000 patients per annum at various locations throughout Northern Ireland.
- 3.12 *Orthoptists* - treat and diagnose defects of vision and abnormalities of eye vision – for example, in binocular vision, amblyopia (lazy eye) and strabismus (squint). They hold clinics in 32 different locations across Northern Ireland. They see approximately 50,000 patients per annum (mainly children with amblyopia and strabismus, and adults with diplopia). Orthoptists may also play a role in the assessment and management of patients with glaucoma, cataract and low vision. They may also

²⁶ RCGP Curriculum Statement 15.5 on Eye Disorders (2010).

provide a diagnostic and therapeutic role in patients living with long-term conditions such as stroke, MS and cancer.

- 3.13 *Orthoptists* are registered with the Health Professions Council and diagnose, treat and manage patients with strabismus, amblyopia and diplopia. Orthoptists contribute to the re-ablement of those with long-term conditions such as diabetes, stroke, MS, cancer, acquired brain injury etc.
- 3.14 *Orthoptists* work in integrated, patient-centred multi-disciplinary teams seeing approximately 50,000 patients per annum across all programmes of care at 32 acute and community sites throughout Northern Ireland. They have extended roles in paediatrics, glaucoma, cataract, low vision services, special and complex needs and stroke.
- 3.15 *Ophthalmic nurses* - have general nursing training with varying amounts of specialist training in hospital eye departments and other settings. Many have developed expertise in pre and post operative care of patients undergoing eye surgery, and in emergency eye treatment and care. In addition, they contribute to the care of patients with chronic eye conditions such as glaucoma, cataract and low vision.
- 3.16 *Ophthalmologists* – are medically qualified and are registered and maintained on the General Medical Council specialist register. They have undergone five years of undergraduate training followed by a number of years of postgraduate training in general medicine and surgery and an extensive period in ophthalmology (7 years of ophthalmic specialist training) and are required to pass the examinations set by the Royal College of Ophthalmologists. They examine, diagnose and treat disease and injuries to the eye. They are usually employed by HSC Trusts. They can prescribe a wide range of medicines including specialist medicines, and perform eye surgery and other interventional procedures.
- 3.17 Table 2 (below) shows the number of ophthalmologists, optometrists and orthoptists employed by HSC Trusts in March 2012. The regional unit for ophthalmology in Northern Ireland is located in the Belfast Health and Social Care Trust. It provides a range of services including a specialist visual assessment service for those with a learning disability or complex needs. In addition to regional services, the unit provides ophthalmology services to the Greater Belfast area and provides outreach

services throughout the Northeast, Southeast and Southern Trust areas of Northern Ireland. Altnagelvin Area Hospital provides ophthalmology services throughout the West and Northwest. Both units have dedicated emergency clinics which provide care for emergency ophthalmology conditions. Both units provide training for ophthalmology in Northern Ireland.

Table 2 – HSC Staff at 31st March 2012 by HSC Organisation

	Belfast HSCT		Northern HSCT		South Eastern HSCT		Southern HSCT		Western HSCT		HSC Board	
	HC	WTE	HC	WTE	HC	WTE	HC	WTE	HC	WTE	HC	WTE
Consultants ¹	28	23.23	0	0	0	0	0	0	10	9.33	0	0
Optometrists	22	14.78	0	0	0	0	0	0	7	6.7	5	2.43
Orthoptists	6	5.48	8	6.8	7	4.5	4	3.73	7	6.8	0	0

Source: Human Resource Management System
¹ Consultant Ophthalmologist figures have been obtained directly from HSC Trusts.

Table 2 Further notes

Belfast HSCT consultant figures include 3 joint appointments with Queens University Belfast and 3 paediatric consultants specialising in Ophthalmology.

Western Trust consultant figures include 1 consultant with a special interest in paediatric services.

Additional information

Results from the March 2012 workforce vacancy survey show 4 (4.0) long term vacancies for Consultant Ophthalmologists – 2 in Southern HSCT (both are new posts), 1 in Belfast HSCT and 1 in Western HSCT. All of these vacancies were active for 3 months or more at the survey date.

3.18 Since 2008, the Whole Time Equivalent (WTE) posts for optometrists have risen from 17.24 WTE to 22.19 WTE in 2012; and for orthoptists from 24.29 WTE in 2008 to 27.31 WTE in 2012. However, as can be seen from the above data, there are a number of vacancies at consultant ophthalmologist level which are actively being recruited to, including new posts for a service in Southern HSCT.

3.19 The prevalence of visual problems (including high refractive error and ocular pathology) is significantly higher amongst those with learning disability. This is often present from childhood and it is therefore imperative that regular eye examinations are undertaken from an early age. Examples of good multi-disciplinary clinical services exist in Northern Ireland but they are not funded on a regional basis. The Belfast Trust provides a comprehensive visual assessment service for adults with learning disabilities within day care facilities across three Trust areas whilst the Western Trust co-ordinates a similar service for children with learning disabilities in special schools. A specialist service also provides care for children with complex

neurological diagnoses and associated visual impairment and is co-ordinated by paediatricians with input from ophthalmology, optometry, orthoptics, rehabilitation workers and teachers for the visually impaired. Expansion of the services may be required where need is identified, subject to business case approval and prioritisation of resources.

Current Service Provision - Demand, Activity and Performance.

3.20 The following paragraphs outline the current service provision in Northern Ireland. Given the importance of prevention and early intervention, this includes paragraphs on early detection of eye conditions in children through use of universal screening approaches, and the formal introduction of a diabetic retinopathy screening programme in Northern Ireland from 2007. Whilst these two programmes are not the subject of this document, they are important from a public health perspective and also have a direct impact on eyecare service provision both now and into the future.

Universal Vision Screening for Children in Northern Ireland

- 3.21 The vision screening programme for children is contained within *Healthy Child, Healthy Future*, the framework for the Child Health Promotion Programme in Northern Ireland. Every child is offered a quality assured vision check at 4 – 5 years. An updated regional Orthoptic led Vision Screening Pathway has been in place since 2007.
- 3.22 The Northern Ireland vision screening programme is based on recommendations from the National Screening Committee and NICE guidance. It provides universal screening for all children in P1 and targeted screening for those children with a family history (1st degree relative) of strabismus, amblyopia, nystagmus or high refractive error. All children with a medical vision risk factor e.g. prematurity, cerebral palsy or Down's syndrome receive an automatic referral to Orthoptics.
- 3.23 Treatment during the critical period of visual maturation allows optimal management of affected children. There is clinical evidence that children with these conditions benefit from early detection to increase the successful outcome of treatment. Annex 5 contains an eye assessment flowchart which describes when the programme is offered to children.

Diabetic Retinopathy Screening Programme

- 3.24 Diabetes affects 3.8% of the population in NI. It is projected that by 2015 this could rise to almost 6% for adults.²⁷ It can occur at any age and is more common in those that are overweight and obese. Over time it can cause damage to the large and small blood vessels including those in the eye, causing diabetic retinopathy. It is the leading cause of blindness and visual impairment in the UK in people of working age. It is also a major cause of blindness in older people. Within 20 years from the onset of diabetes approximately 60% of those affected will have developed diabetic retinopathy.
- 3.25 The Diabetic Retinopathy Screening Programme was rolled out in Northern Ireland from April 2007 with full coverage being achieved from 2008. Screening is offered on an annual basis to all people with diabetes from aged 12 and over. GP practices are responsible for identifying patients for screening, following agreed criteria. Patients who “screen positive” are referred to ophthalmology for further assessment and management. The referral rate from the screening programme to ophthalmology is about 6%. Based on information obtained from the screening programme during 2010/11, approximately 54,000 people were eligible for screening, with an overall uptake rate of about 70% representing some 35,500 presenting for screening. The number of people eligible for screening is lower than the number of diabetics who appear on the GP registers (72,693 – source: QOF data). This is because the screening programme ran for 15 months so not all individuals were counted/invited in the 12 month period. In addition some patients with diabetes on the GP registers will not be eligible for screening, for example, those who are under 12 or who are blind. As the number of people with diabetes continues to rise each year, so too will the number for screening increase with a consequential rise in the number of referrals to ophthalmology services.

²⁷ N. Hex, C. Bartlett, D. Wright, M. Taylor and D. Varley (2012) based on QCIR data from General Practice Diabetes Effects.

Demand and Activity

3.26 The vast majority of individuals attending GOS practitioners do so in order to have a sight test and acquire whatever optical appliance is required to maximise their vision. Almost 90% of all attendees will, when corrected, have normal vision in healthy eyes. A small proportion, however, do have sight problems and optometrists will refer approximately 3% to Hospital Eye Services. (Figures for referral to GMP/Medical Specialists following eye examination in England and Wales are 3.4%)²⁸. Based on financial claims from GOS for remuneration of health service sight tests per annum, there is an increase in the number of sight tests each year from 385,463 in 2007/8 to 434,255 in 2011/12. In addition, there is an unknown quantity of private sight tests carried out in Optometric practices in Northern Ireland. In 2007, the estimated number of private eye examinations conducted was approximately 285,000. This represented nearly 43% of the total eye tests carried out at that time. There has not been a Northern Ireland Sight Test Survey carried out since 2007.

Table 3 - Sight Tests by Financial Year and Age (2007/8- 2011/12)

Year	Under 16	16+	Unknown	Total
2007/8	94,486	290,879	98	385,463
2008/9	99,375	304,396	104	403,875
2009/10	100,538	312,452	85	413,075
2010/11	102,192	323,142	0	425,334
2011/12	104,817	329,437	1	434,255
Source – Business Services Organisation (BSO), 2012				

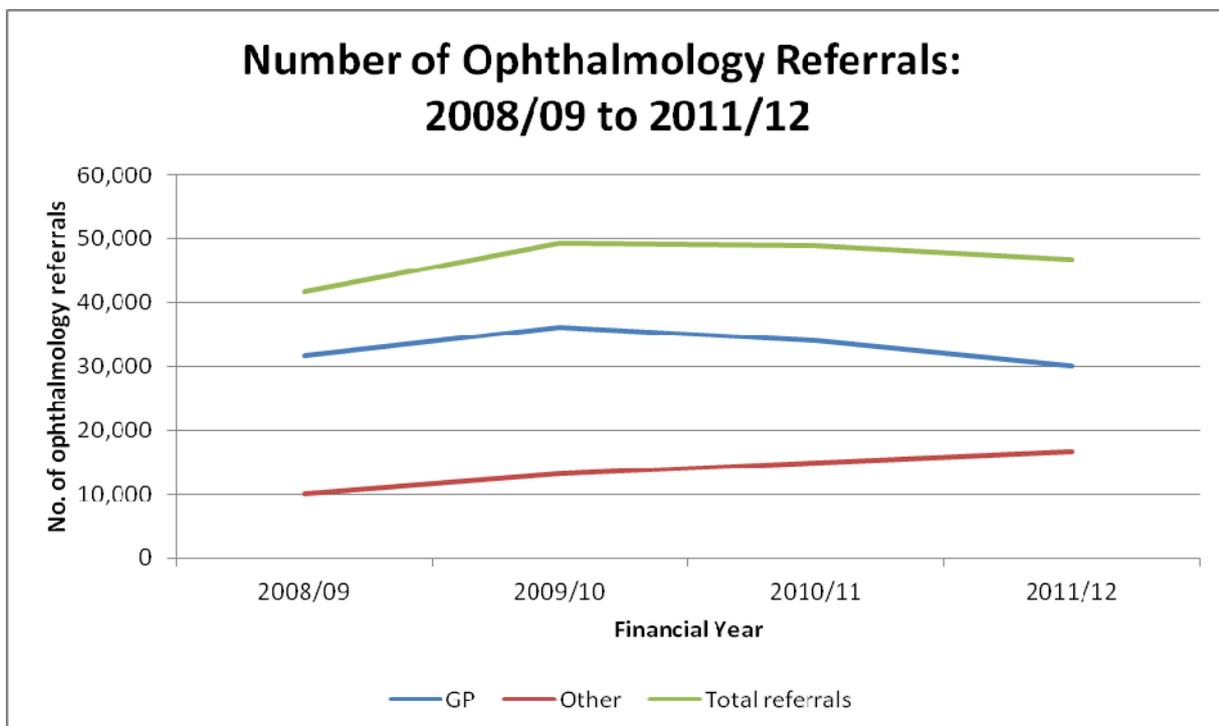
3.27 In order to fully understand the current picture in general ophthalmic services, it would be beneficial to update the Northern Ireland General Sight Test Survey.

²⁸ College of Optometrists Clinical Audit Framework for Optometric Practice 1 November 2004, London.

Objective 4

The Northern Ireland Sight Test Survey will be re-commissioned in order to fully understand the level and type of demand for sight tests in General Ophthalmic Services, to include referral patterns, demographics, co-morbidities and level of private practice undertaken.

3.28 Demand on HSC Trust eyecare services has also been increasing. This is measured by the number of referrals within a specific time period. The largest number of referrals come from GP practices (though the majority of these referrals will have originated from GOS practitioners), but there are also a substantial number from a variety of other sources including other specialities and services, with a smaller number coming directly from general ophthalmic services. The diagram below shows an overall rise in the number of referrals -the largest component part being from sources other than general medical practice. The total referrals in 2008/9 were approximately 42,000; the rise (to 47,000) has been less steep in 2011/12, when compared to intervening years.

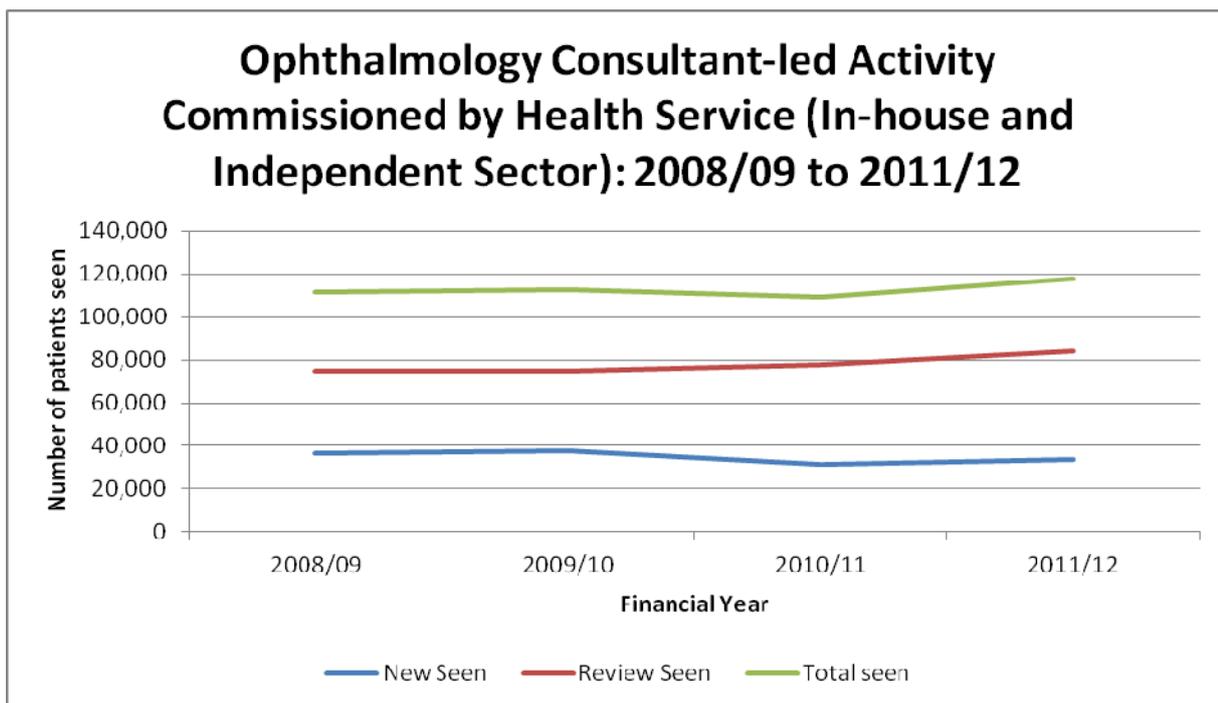


Source: Departmental Return Referral

Note: GP referrals may also include referrals from General Ophthalmic Services.

3.29 Activity within HSC eyecare outpatient services is measured by the number of new and review patients seen within a defined period within a clinical setting. Whilst the majority of patients are seen within HSC consultant led hospital clinics, there is also use of the independent sector as part of commissioned waiting list initiatives. In addition, there has also been some use of the Integrated Clinical Assessment and Treatment Service Model (ICATS) which uses a team based approach with the involvement of GPs with Special Interests (see Para 3.10). The following diagram represents all consultant-led activity (both in-house and independent sector activity) commissioned by the HSC for new and review patients.

3.30 Whilst the number of new patients seen at consultant-led services commissioned by the HSC has declined – from approximately 37,000 in 2008/9 to nearly 34,000 in 2011/12, the number of review patients continues to increase, from approximately 75,000 patients in 2008/09 to nearly 84,000 in 2011/12.



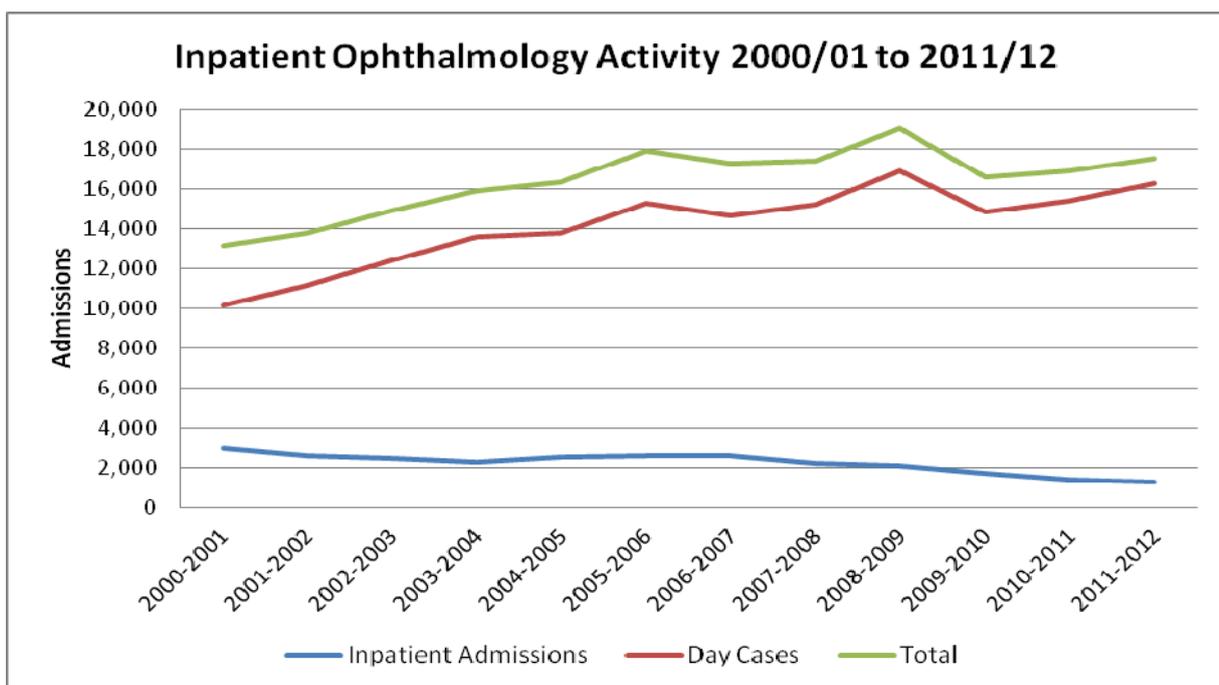
Source: Departmental Returns QOAR and IS1 Part 1

3.31 A 2010 audit indicates that whereas 33% of all ophthalmology outpatients attend specialist outpatient clinics (macular degeneration, glaucoma, corneal, paediatrics etc), 67% of all those attending are reviewed within general ophthalmology clinics.

3.32 In addition to outpatient referrals and activity, there is also unscheduled demand and activity usually presenting through hospital emergency departments (ED).

Approximately 20,000 patients attend ED services annually in Northern Ireland for urgent eyecare assessment and treatment. Most of these attendances are self referrals by members of the public. Both the Belfast Trust (Royal Victoria) and Altnagelvin Area Hospital provide dedicated emergency eyecare clinics.

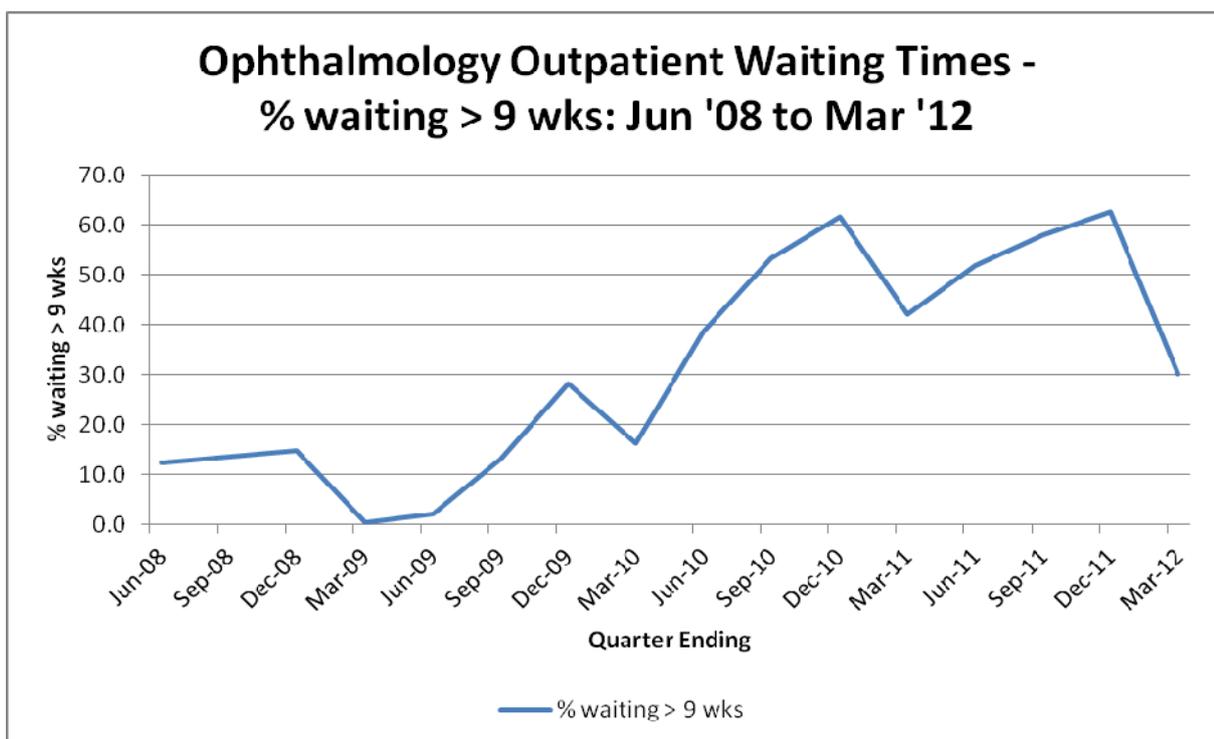
3.33 There are also daycase and inpatient ophthalmology admissions. As with other specialities, the model of care is changing with more surgery and other eye procedures being carried out as daycases. Overall the total number of HSC hospital admissions (both daycase and inpatients) has risen substantially since 2000/01. It should be noted that these figures do not include independent sector inpatient activity.



Source: Hospital Inpatient System

3.34 Screening programmes such as diabetic retinopathy, earlier detection and technological advances together with demographic changes giving rise to longterm conditions such as glaucoma, cataracts, and macular degeneration will increase demand on inpatient, outpatient and community services.

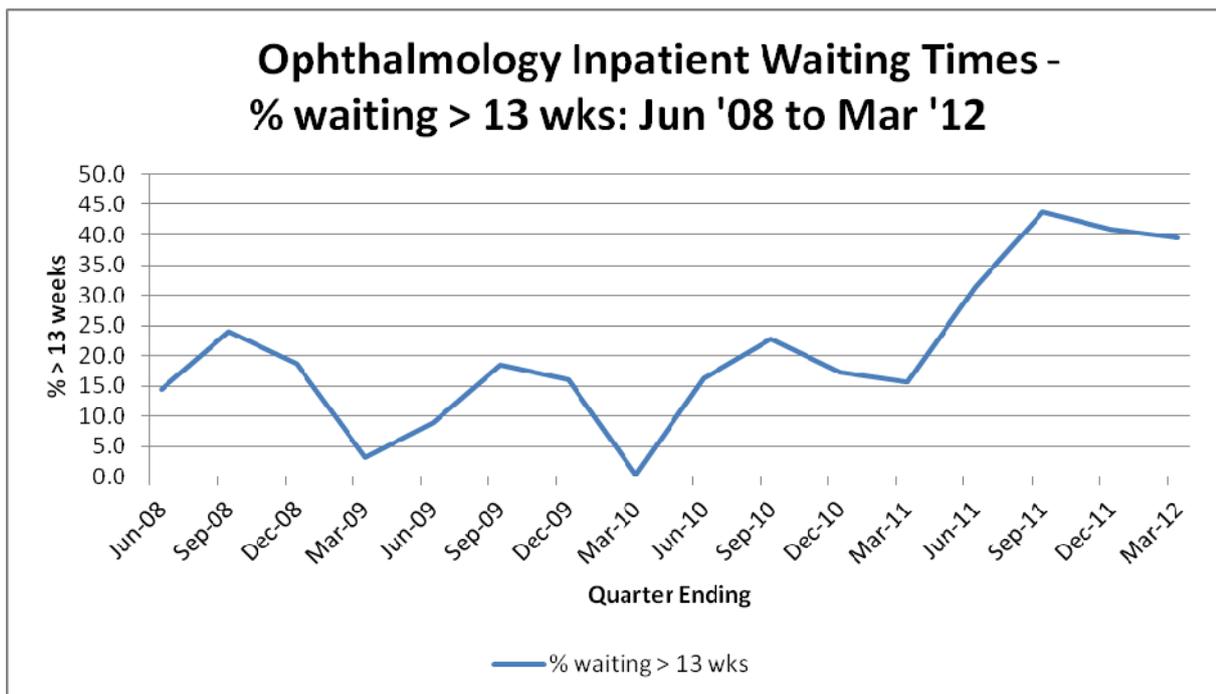
3.35 The DHSSPS has set a number of targets and performance indicators to improve the quality of care commissioned and provided by the HSC, and to enhance the patient experience. These are outlined in the annual Commissioning Plan Direction²⁹. They also apply to ophthalmology outpatient and inpatient waiting times. At March 2012, there has been significant improvement in outpatient waiting times for new (first) consultant led outpatient appointments with 2,833 patients waiting greater than 9 weeks (i.e. 30%), of which 110 patients waited more than 26 weeks to be seen. In 2011/12 the HSCB commissioned more services through a Waiting List Initiative.



Source: Departmental Return CH3

3.36 Patients waiting for inpatient treatment have shown a steady rise since March 2010. At that time less than 1% of patients were waiting >13 weeks for inpatient treatment. At March 2012, there were 5,317 waiting for inpatient treatment. Of these patients, 39% (2,095) have been waiting more than 13 weeks with 6 patients waiting more than 36 weeks.

²⁹ Commissioning Plan Direction, DHSSPS in exercise of powers conferred –Health and Social Care (Reform) Act (Northern Ireland) 2009(a).



Source: DHSSPS Inpatient Waiting Times Dataset

3.37 Such changes are reflective of increasing pressures on the secondary sector, which include a reduction, from March 2010 onwards, on use of the independent sector (falling from almost 3,000 ophthalmology inpatient attendances in the Independent Sector in 2009/10, to around 350 in 2010/11). More recently, however, the independent sector has been involved again in waiting list initiatives, with approximately 1,560 ophthalmology inpatient attendances in the Independent Sector in 2011/12.

3.38 There is also much work currently being undertaken in HSC Trusts and at HSC Board level to identify the gap in service provision between demand and supply, and to improve productivity. This is particularly relevant to elective care across all specialities including ophthalmology. Currently, it is acknowledged that within ophthalmology there is a gap as demand currently exceeds capacity. Reform of the service is ongoing including some consideration of some short term solutions to increase capacity and to consider longer term solutions. This is part of a whole systems approach to service reform with a particular emphasis on “shift left”- i.e. earlier intervention and access to services closer to home, where it is appropriate to do so. The Glaucoma demand management proposals will help to address capacity issues and offer improved patient experience.

3.39 Whilst clinical standards and guidelines are promoted through professional organisations such as the Royal Colleges, regulatory bodies and the National Institute for Health and Clinical Excellence, there is no regional outcomes data for ophthalmology services from either the secondary, primary or independent sectors.

Financial Resources

3.40 General Ophthalmic Services is a demand led service with an approximate annual expenditure of £20 million. The estimated cost of eyecare services in general medical practice is approximately £3.3m per annum (based on a share of 1.5% of GP costs). In addition, £4m is spent on ophthalmic medicines prescribed by general medical practitioners and dispensed by community pharmacists to include medicines, topical preparations and eye drops. Hospital expenditure, as identified in the speciality of ophthalmology by Trusts, in 2010/11, was just over £28 million of which £5m was spent on eye medicines and specialist drugs.

3.41 The expenditure on HSC community ophthalmic service in 2010/11 was £1.7 million; the single largest component is on orthoptics in the Maternity and Child Health Programme of Care.

3.42 The total expenditure in 2010/11 on eyecare in the primary, community and hospital sectors was estimated to be in the order of £57m per annum. This is not a comprehensive figure as it would be very difficult to disaggregate certain eyecare services from overall health service provision. For example, the total cost does not include the cost of patients presenting to a general hospital accident and emergency department, nor does it include the diabetic retinopathy screening programme or major trauma services. Also, it would not take account of any universal paediatric or school nurse programmes which promote the early intervention for eye conditions in children. In addition, it would not include funding of hospital pharmacy time spent in the preparation of eyecare products under aseptic conditions.

3.43 It is recognised that elective waiting times for ophthalmic services in the secondary sector are too long. Since 2009/10 an additional investment of approximately £220m has been made to reduce waiting times for all HSC services. This resource includes both recurrent and non recurrent investment in both the HSC and independent

sectors, and also involves investment in new pathways of care, for example, in glaucoma.

- 3.44 The capital costs of eyecare equipment, premises and environments have not been included.

Summary

- 3.45 This section highlights the current approaches to the delivery of eyecare services in primary, community and hospital services. These services are delivered by a range of practitioners including high street and hospital optometrists, dispensing opticians, orthoptists, nurses, technicians and ophthalmologists. General Ophthalmic Services (GOS) is demand-led and is governed by legislation on what can be provided to the public. The number of GOS sight tests provided has risen year on year since 2007/08.
- 3.46 The current HSC hospital and community eyecare services are under strain due to a range of factors including changing demography rising demand, staffing vacancies, new technologies and medicines, and successful implementation of screening programmes such as the diabetic retinopathy screening programme generating increased demand and service activity. Service reform must occur if high quality, safe and sustainable services are to be achieved for members of the public who need access, in order to maximise vision and enhance life chances and independence. The next section describes how service redesign in eyecare services will link to the *right person, right time, right place*, approach as described in *Transforming Your Care*. To drive change will require clinical leadership, integrated working and a focus on early intervention, service quality and performance.

Section 4 – Eyecare Service Redesign

Introduction

- 4.1 Previous sections have highlighted why service redesign and integrated working in eyecare provision is necessary in order to deliver sustained improvements in good eye health. Such an approach is complementary to *Transforming Your Care (TYC)* which was published in 2011. That Review provided an overall model for health and social care services that placed the individual at the heart of the model – with the promotion of self care and good health decision making; and a shift in service provision closer to home, yet recognising the importance of access to high quality emergency, planned and specialist care.
- 4.2 In response to *Transforming Your Care*, five draft Local Population Plans (one for each Local Commissioning Group area) and an overarching draft Strategic Implementation Plan to drive strategic change and inform new models of care, have been developed. These Plans form the basis for formal consultation which commenced in October 2012.
- 4.3 Multidisciplinary working is key to success including the involvement of individuals as partners in care, services commissioners, the HSC and third sector provider organisations. The development of Integrated Care Partnerships is a core element of *Transforming Your Care* which would facilitate integrated working across primary-community-secondary care boundaries in the future and provide an opportunity for local providers to work together on priority areas.
- 4.4 Change is already happening in the commissioning and provision of eyecare services. For example, a number of Primary Care Partnerships, have established pilot projects to better understand the pattern of GP referral to the secondary sector, a regional integrated care pathway for glaucoma has been developed by the HSC Board and is due to commence in late 2012, our hospital eyecare service is at the forefront of research into the management of macular disease; work led the Royal National Institute for the Blind (NI) is underway to examine how people living in areas

of higher deprivation might be encouraged to access general ophthalmic services and understand better the risk factors affecting good eye health.

4.5 Northern Ireland eyecare services already have a number of significant strengths, not least in the high quality of professionals working in the service. In addition, an integrated health and social care system and the relatively small geographical area provides a real opportunity to have a more consistent approach regarding which eyecare services should be provided locally and which are more sustainable at regional/supraregional levels. TYC supports a networked approach to acute hospital service provision; this is also of relevance to eyecare services which is a relatively small speciality and one which could benefit from networked arrangements where more services could be delivered closer to the patient’s home, yet professionals would not work in isolation from one another.

Designing Solutions – for the Commissioning and Provision of Eyecare Services

4.6 The following paragraphs describe the principles and a generic service model which should underpin service change in the commissioning and provision of eyecare in the future. These principles are consistent with a “shift left” agenda of TYC yet recognise that there will always be a need for general and specialist eyecare service.

The Principles of Service Change for Eyecare Services³⁰

Clinical leadership	Leadership by clinicians across the primary, community and secondary sectors is essential for change; service models in other parts of the UK have demonstrated this as an essential component for successful change.
Engagement	Service commissioning and provision, informed by assessment of need and engagement with local people and relevant advocacy organisations.

³⁰ Adapted from *Step-by Step Guide to Commissioning Community Eye Care Services* 2007 - NHS Primary Care Contracting.

Good practice and governance	Change to be based on evidence of good practice, with appropriately qualified and competent staff, service standards, and piloted, where necessary.
Prevention focussed	Addressing health and wellbeing.
Outcome focused including a reduction in health inequalities	Success measured by improvement in health outcomes, and the patient experience.
Accessible	Equitable access by all population groups including those with learning and other disabilities or co-morbidities.
Integrated	Managed network of eyecare provision across primary and secondary sectors to improve outcomes.
Monitoring and evaluation	Regional approach to service standards, monitoring and evaluation.
Resources	Appropriately funded to deliver service standards and outcomes.
Value for Money	Level of effectiveness for the level of resource needed.

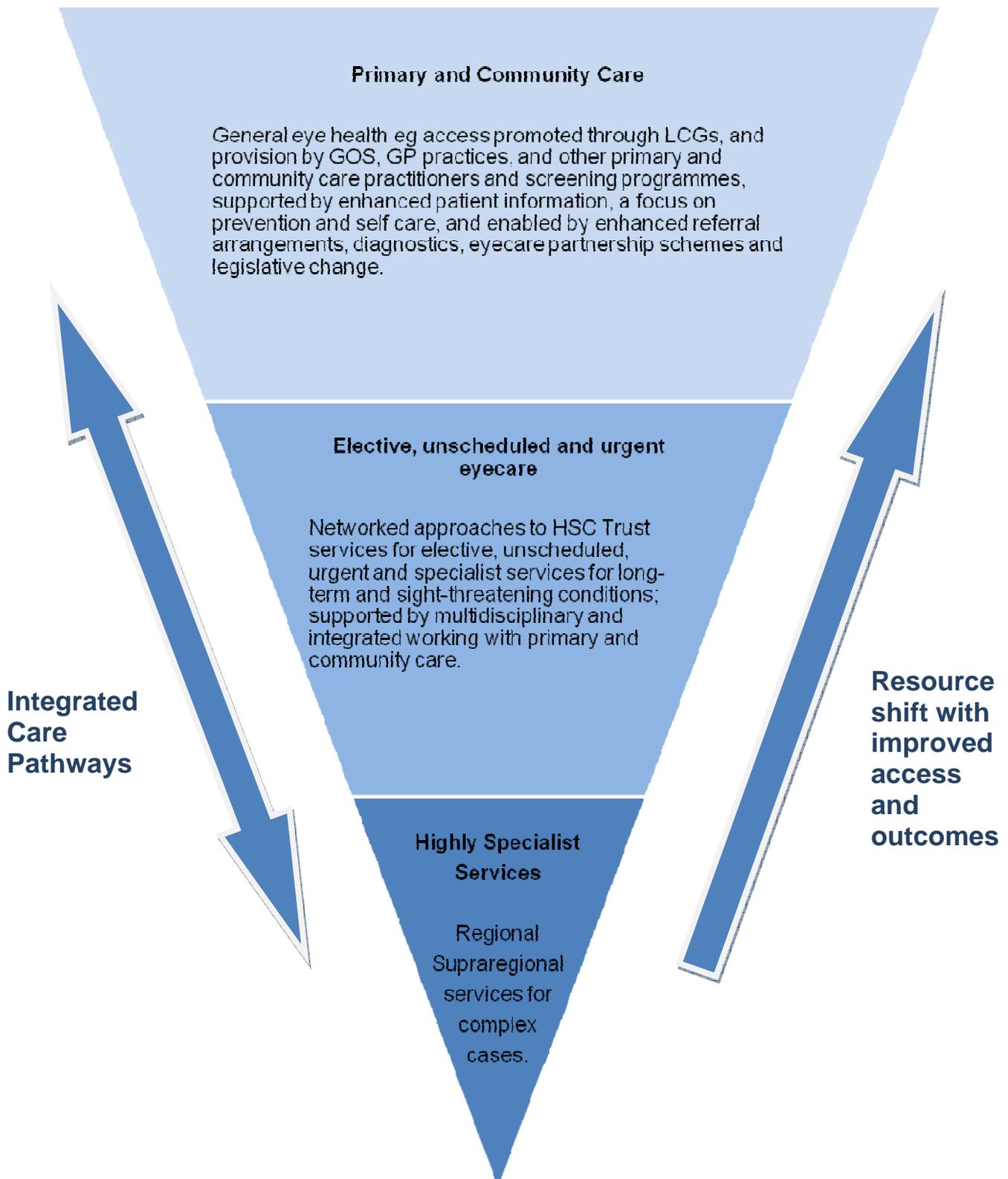
The Future Model of Eye Care Service Provision

4.7 The future model for the commissioning and provision of eyecare provision must take account of population needs – both adults and children, and adopt an integrated multidisciplinary approach to service provision. As outlined in TYC, re- modelling not only promotes better access to primary, community and local service provision but also better and more timely access to acute and specialist care. It also describes financial remodelling with a potential shift in spend away from hospital services and into the community and primary care. As with other services, the change in eyecare

service provision needs to be managed or change will be haphazard, to the detriment of patients, HSC staff and primary care practitioners.

- 4.8 The following diagram provides a generic model of eyecare provision in line with TYC recommendations.

Generic Model of Eyecare Service Provision



Objective 5

An integrated eyecare service model will be implemented which will facilitate a resource shift, with improved inputs, access and outcomes at each level – primary and community, networked acute care and highly specialist regional and supraregional services.

- 4.9 An integrated care pathway approach to the commissioning and development of eyecare service provision is encouraged when the pathway(s) can demonstrate that it has adopted the above ten principles of change. Such a pathway(s) should be considered for long-term conditions; for example, glaucoma, cataracts, macular degeneration and the management of diabetic retinopathy. This approach builds on already established good practice, evidenced in NICE guidance, and the various initiatives which have been developed and implemented in Wales, England and Scotland. It supports clinical governance, service improvement and the maximisation of resources – both human and financial. All pathways should include access to support services which will assist patients to adjust and cope with the impact of their eye condition on their day to day life and overall wellbeing.

Objective 6

There will be a regional approach to the development of integrated care pathways for long-term eye conditions to include glaucoma, cataract, diabetic retinopathy, macular degeneration and low vision; these pathways will adopt the ten principles of service change in order to enhance access, and improve eye health outcomes.

- 4.10 Part of an integrated care pathway approach is to clearly define regional inputs, outputs and outcomes. In respect of these there must be:-
- enhancement of arrangements for eye examinations in primary care which does not duplicate services already appropriately provided in other settings;

- greater access to diagnostics in primary and community care settings, if the volume of patients/throughput justifies it, and the staff have the training and competencies to deliver;
- clear referral protocols in place with a more streamlined referral process and documentation of baseline and diagnostic test results;
- streamlined and improved access and uptake across the system; in particular, for screening, new and review patients and day case provision. To this end a systems approach will be necessary to enable a greater understanding of pressures and gaps in service provision. This should include a mapping of the end to end processes; and
- clearly defined outcomes for each pathway with each sector contributing to a regional approach to data collection and audit.

Objective 7

There will be high level regional measurements developed to facilitate the monitoring and evaluation of the new eyecare service model and associated pathways. These will include input, output and outcomes measurements.

Enablers for Change

Changes in Commissioning Arrangements

4.11 A number of enablers for change are required if good visual health is to be achieved and benefits realised for individuals, the HSC system and wider public resources. Article 62 of the Health and Personal Social Services (NI) Order 1972 places a duty on the HSC Board to make arrangements for the provision of sight-testing for specific groups (children, people on low income, persons with certain medical needs and the over 60s). These services are referred to as “general ophthalmic services”. It is not envisaged that there would be any substantial change to the arrangements for the provision of sight –testing.

4.12 However, to move to an approach that facilitates earlier identification of sight threatening problems, reduces the number of unnecessary referrals to the hospital eyecare services and allows primary care and other skilled practitioners to look after ophthalmic conditions closer to the patient's home, enhanced eyecare services (i.e. outside that of current GOS) will be commissioned, funded, and provided in innovative ways which meet patients' needs. Such an approach will bring service provision in Northern Ireland, broadly in line with other UK countries, albeit that legislative or other mechanisms have been used to give effect to change elsewhere.

4.13 The DHSSPS anticipates significant change in the provision of enhanced eyecare services, for example: -

- the HSC Board and Local Commissioning Groups would be able to commission eyecare services from GOS practitioners, other practitioners/organisations and HSC Trusts subject to certain safeguards and appropriate training and governance arrangements being in place; and
- the GOS provider would be able to employ suitably qualified professionals to deliver commissioned services.

4.14 These enhanced eyecare services will be called *Eyecare Partnership Schemes*. At this juncture, primary legislation would not be required to introduce such schemes. To introduce a new GOS contract would delay service innovation and would require primary and secondary legislative change. The earliest that this could be introduced into the Assembly would be post 2015 and would be unlikely to be in place before 2018. Through partnership working much can be achieved in reconfiguration of eyecare services provision to improve outcomes for patients. In addition, collaborative working and more trust needs to be developed between primary, community and secondary care practitioners. This is reflected in consultation responses to the *Developing Eyecare Partnerships* document which indicated that whilst many respondents were in favour of partnership working, not all respondents were in agreement on the future service models or the skills and expertise required by individuals to implement change.

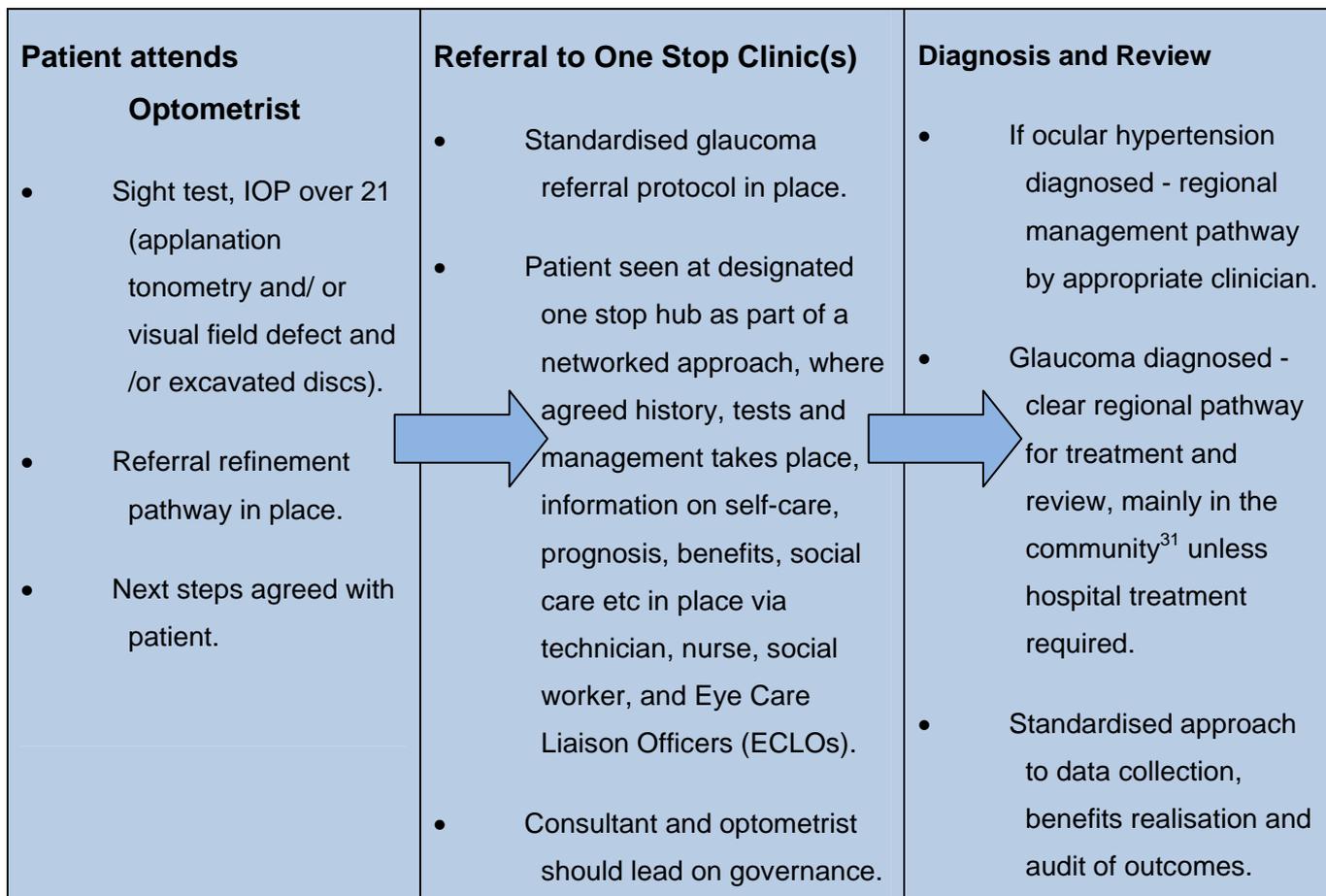
4.15 Over time, the new Eyecare Partnership Schemes will need to be commissioned and funded by the HSC Board. An integral part of each enhanced scheme will be the setting of clear objectives and standards in line with the Principles set out in this document, appropriate governance arrangements, data collection and evaluation. The funding of commissioned schemes will need to be considered as part of population planning and Quality Improvement and Cost Reduction (QICR) approaches to healthcare service provision. This is in keeping with *Transforming Your Care* which advocated a “shift left” approach to financial resources (estimated to be 5%), from hospital to community. In addition, shorter term Waiting List Initiative resources may offer the opportunity to enhance service provision locally.

Objective 8

Eyecare Partnerships Schemes, to enhance access to diagnosis and treatment closer to home, will be based on population needs. These will be developed regionally and commissioned by the HSC Board working in collaboration with Local Commissioning Groups. These funded schemes will be part of new pathway approaches for the delivery of services for common eye conditions.

- 4.16 Hospital services will be part of the partnership approaches to eyecare. Whilst there will always be a need for specialist services, the model within hospital/community services for general and specialist eye clinics should be reviewed to ensure the best possible use of available resources. This work should examine the approaches taken in other UK countries to the delivery of services and the enhancement of roles and responsibilities, thus freeing up more time for those who need to see a consultant ophthalmologist or other specialist practitioner.
- 4.17 By way of an example, the following is a high level regional pathway for glaucoma. This approach is currently being developed in Northern Ireland taking account of standards set within the NICE guidance for glaucoma.

Glaucoma Pathway



Low vision pathway

4.18 The existing low vision service in Northern Ireland is widely regarded as an exemplary model of good practice. Over the last decade, outreach clinics have been established at numerous sites across the region in order to improve accessibility. Referrals are now accepted from a range of professionals including optometrists, ophthalmologists, rehabilitation workers and GPs. Joint assessments with experienced hospital optometrists and rehabilitation workers ensure a holistic service to meet the needs of each individual patient. Teachers for the visually impaired are also in attendance at paediatric clinics to advise on educational issues. Low vision aids are provided and in addition a range of electronic aids and aids to assist with

³¹ Community, in this context, means closer to home and managed by an appropriate clinician, taking account of NICE: Glaucoma – Diagnosis and management of chronic open angle glaucoma and ocular hypertension. Clinical Guideline 85 (2009).

daily living tasks are available for demonstration. The service is subject to regular clinical audit, including service user evaluation, the results of which have been published in peer-reviewed journals.

- 4.19 There are also several evaluated pathways in other parts of the UK which enhance services for patients (adults and children) with low vision. The Welsh low vision service provided by optometric practices using optometrist/OMP who have been specifically trained and accredited. Patients can access the services via self referral, or through an ophthalmologist, GP, social worker, or rehabilitation worker. There are agreed referral criteria and a care pathway in place. Equipment is provided to participating accredited practitioners. There is a clear process for ordering “approved” low vision aids. The service has a standard approach to record keeping and is subject to audit. Clear arrangements are in place to refer the individual should there be an undiagnosed new condition or a change in an existing disease state. The ophthalmologist continues to be responsible for certification of the patient who is blind or partially sighted.

Acute Eye

- 4.20 Another example of different ways of working in the primary, community and hospital sectors is for the diagnosis and management of the Acute Eye. There have been several schemes put in place in other parts of the United Kingdom which have been fully evaluated and demonstrate effective treatment and care for the acute eye whilst, at the same time, reducing pressures on the hospital eye services and emergency departments. The vast majority of these patients can be managed in primary and community care, with access improved for those who need to see an ophthalmologist. In addition, these schemes have demonstrated a significant reduction in the prescribing of topical antibiotics.

Regional Acute Eye Service (RAES)

- 4.21 The Regional Acute Eye Service (RAES) is based in the Belfast Trust; there are also emergency eye services available at Altnagelvin Area Hospital. The RAES recently increased its services to accommodate increasing patient demand arising from the temporary closure of the emergency department in Belfast City Hospital. RAES sees

approximately 12,000 per annum, yet in the period between October 2011 and February 2012, during its extended opening hours, it saw an additional 895 patients – 420 (3pm- 6.30pm) and 475 at weekend and bank holidays (between 8.30am- 2.00pm). Altnagelvin Area Hospital ophthalmic staff examine approximately 8000 patients with acute eye problems per annum.

- 4.22 It was already known that the RAES service has been under pressure³² not just due to increasing patient demand but also due to the need for compliance with the European Working Time Directive for junior doctors and their mandatory training needs. Traditionally, the RAES has been staffed mainly by junior doctors with additional support provided by nurses and other staff. Whilst skill mix and new ways of working have developed, more could be done to maximise the use of nurse practitioners and other clinicians, such as optometrists.

Objective 9

A regional pathway will be developed for the diagnosis and management of the “acute eye” across the primary, community and hospital interfaces. This pathway will need to consider how best to maximise resources – both human and financial – and be commissioned and delivered within an appropriate clinical governance framework.

The Voluntary Sector

- 4.23 Voluntary sector organisations play a pivotal role in the provision of information, aids and support for individuals living with sensory impairment. They are also strong advocates for the commissioning and provision of high quality eye care services. In addition, they contribute to research, highlight health inequalities and barriers to service access.

³² Source:- HSC Board and Belfast Trust.

The RNIB Northern Ireland Community Engagement Project (CEP) in West Belfast aims to address key barriers to uptake of primary eye care services. This is one of five concurrent community engagement projects in cities across the UK. RNIB research in West Belfast during 2011 found that the key barriers to accessing primary eye care services were:

- A low awareness of risk factors affecting good eye health;*
- A symptom-led demand for care;*
- Negative expectations about the cost of sight testing and treatment; and*
- Negative views and perceptions about the process and content of the sight test*

Barriers to accessing care in secondary care were also identified particularly around waiting times and understanding information about eye conditions.

During 2012 to 2014, RNIB will be working with communities in Whiterock, Clonard, Falls and Upper Springfield to promote understanding of key eye health messages and to encourage attendance for sight testing. The information provided will clarify benefits entitlement to sight testing and spectacles and will address the other barriers identified above.

A second stream within the project will seek to create peer support groups in the catchment areas for people diagnosed with glaucoma. The aim of this work is to explore how a self-management approach may be developed to improve both adherence with prescribed medication and attendance at review appointments.

The project outcomes will be evaluated by a team from the London School of Hygiene and Tropical Medicine.

4.24 Voluntary sector organisations are well placed to support and reinforce public health education messages about risks to good eye health, patient understanding of their eye condition and its implications and to provide advice about how to make the best use of any remaining vision. From a patient perspective, the voluntary sector provides an important gateway to other services in their local community and to advice on a range of issues including mobility, employment, benefits and technology.

4.25 Effective partnership working between HSC Trusts, GOS and by voluntary sector organisations can help to ensure that the patient who is experiencing visual impairment has his/her needs met in a holistic and person-centred manner.

Workforce Training and Development

4.26 Reform and modernisation of eyecare services requires workforce development, and training and supervision arrangements to be put in place. In particular, the development of integrated care pathways for major eye conditions needs both

generic and more focussed training. All care pathways should establish what the training needs of professionals are within the primary, community and hospital sectors. The enhancement of skill mix is also an important part of any pathway development with the trained staff member most suited to the task delivering these services, for example; it could be that there are expanding roles for technicians, nurses, orthoptists and optometrists, depending on what is required. In addition to the development of skill mix, there should also be consideration of which grade of staff within a professional grouping is the most suitable member to undertake the management of the condition.

- 4.27 Mentoring and supervision within an appropriate clinical governance framework is an essential component of workforce development. It is suggested that each HSC Trust (or possibly within an Integrated Care Partnership in the future) should nominate a clinical eyecare lead. This individual could be an organisational champion for high quality, safe and sustainable eyecare services. The setting of standards, audit and continuing professional development aligned to organisational/practice priorities are important elements.

Prescribing and Supply Arrangements in General Ophthalmic Services

- 4.28 A range of prescribing arrangements already exist in General Ophthalmic Services in Northern Ireland. For example, registered optometrists may give signed orders to community pharmacies for a restricted set of Prescription Only Medicines (POM) for direct pharmacy-to-patient supply. A registered optometrist may also sell or supply all General Sales List (GSL) medicines and all Pharmacy (P) listed medicines. In addition, a registered optometrist can sell or supply Prescription Only Medicines which are specifically listed – certain eye drops and eye ointments. An optometrist who has undergone special training and is accredited by the General Optical Council as an “additional supply optometrist” is also able to sell, supply or write an order for an extended range of medicines provided it is in the course of their professional practice and in an emergency.
- 4.29 *An Optometrist Independent Prescriber* means a person who is registered in the register maintained by the General Optical Council, and against whose name in that register is recorded an annotation that he/she is qualified to order drugs, medicines

and appliances as an independent prescriber. Such an arrangement allows a pharmacist to legally dispense against a prescription issued by an optometrist independent prescriber. From June 2008, optometrist independent prescribers can prescribe any licensed medicine for ocular conditions affecting the eye and surrounding tissue, but cannot prescribe any medicine for parenteral (e.g. by injection) administration or controlled drug. These prescribing and supply arrangements in optometry practice offer opportunities for more prescribing to occur in primary care without the need for an optometrist to refer to a GP or a hospital consultant. At present, there are only a small number of optometrists trained as independent prescribers (<10).

Objective 10

Clinical leadership, workforce development, training, supervision and accreditation will be essential components of eyecare service reform. This includes the promotion of independent optometrists' prescribing, where appropriate to do so.

Electronic Communication and Payments in General Ophthalmic Practice

- 4.30 All optometry payments are completed, via Business Services Organisation (BSO), by means of a paper based claim system. A business case is currently in development to move this system to an electronic based one which will include the Health and Care Number of the individual patient. As time progresses, such an electronic system would allow for greater interrogation of the data, in addition to improved probity arrangements.
- 4.31 Confidentiality of information disclosed to GOS practitioners, including issues related, ultimately, to the eventual electronic transfer of data, will be considered at Board level and taken forward under the Board's leadership. Recent advice from Information Governance Leads is that sharing of appropriate patient clinical information should be the norm. Telemedicine within an integrated care pathway approach offers real opportunities to improve access to expert opinion and avoid duplication of service provision.

Objective 11

ICT developments will be required to improve referrals, communications and, payment and probity systems. Telemedicine links have the capacity to improve the quality and efficiency of service provision.

Summary

- 4.32 This section has focussed on designing solutions to improve access and outcomes in the commissioning and provision of eyecare services. The principles underpinning new ways of working are highlighted. Within such an approach clinical leadership, engagement, and governance arrangements are key elements for success.
- 4.33 Integrated care pathways for common eye conditions are identified. To facilitate change in practice, a number of enablers are required including the development of *Eyecare Partnership Schemes* as part of a pathways approach in order to provide enhanced eyecare services, based on population needs, closer to home. Further development of the workforce, enhanced skill mix and better ICT arrangements are key enablers for success.
- 4.34 Patients are partners in care, and require information and support to self manage their eye conditions effectively. Voluntary sector organisations can play a vital role in supporting individuals, their families and carers.

Section 5 - Implementation

Introduction

5.1 The purpose of this section is to outline how this strategy will be implemented in Northern Ireland. In this context, the Department is asking the HSC Board (HSCB) and the Public Health Agency (PHA) to co-lead implementation, working in partnership with other HSC organisations, the public, voluntary and other third sector organisations. It is essential that each HSC provider plays its part in the implementation of this strategy. The development of Integrated Care Partnerships (ICPs) would present a real opportunity for provider organisations to work together to improve outcomes for children and adults living with visual impairment.

Proposed Action

5.2 In order to drive forward implementation, both the PHA and HSCB should nominate a lead individual who will be jointly responsible for overall implementation. It is also expected that each Trust will have a named individual to co-ordinate action within the Trust – both hospital and community. These individuals would act then as local champions to improve the quality and outcomes of eyecare services.

5.3 A number of groups have already been working at Board and Trust levels on certain aspects of eyecare. There are 5 Local Commissioning Groups and 17 Primary Care Partnerships, the latter partnerships are likely to evolve into Integrated Care Partnerships. Some of these groupings have already been involved in specific projects relating to eyecare and all have been involved in the development of Population Plans as recommended by *Transforming Your Care*. The Board/PHA will wish to consider whether an eyecare forum should be put in place to co-ordinate action against the 12 objectives contained in this strategy. It is recommended that a summary action plan be put in place which links to *Transforming Your Care* implementation and relevant Programmes of Care such as Older People, Maternity and Child Health, Physical Disability and Sensory Impairment, and Acute Services.

5.4 Over the next five years significant progress can be made to raise awareness, prevent sight loss, promote self care and improve the efficiency and effectiveness of

the commissioning and provision of eyecare services. Subject to Assembly approval, the DHSSPS will consider taking forward new primary legislation to extend the Listing of individual ophthalmic practitioners who provide HSC funded General Ophthalmic Services.

Accountability

- 5.5 General accountability for implementation of this strategy rests with the HSC Board and Public Health Agency. The Department will monitor progress through normal accountability processes for HSC Board/PHA and HSC Trusts. To inform this process a short regional annual report on action against the Objectives will be required from HSC Board/PHA. This should be sent to the Head of Healthcare Policy Group.

Finances

- 5.6 Health and Social Care services face considerable financial challenges over the next few years. The budget settlement for health and social care for the four year period 2011- 2015 will result in £4.65bn by 2014/15 being available for Health and Social Care deployment. It is clear that a significant funding gap will emerge in the years ahead if no change or transformation to services is made. Short-term measures are in place – such as recurrent and non- recurrent investment in waiting time initiatives. However, through the TYC review, it is anticipated that there will be in the order of a 5% shift from current hospital expenditure into primary, community and social care sectors.
- 5.7 The commissioning and provision of eyecare services is part of those challenges and the service reform programme. Maintaining the status quo is not an option; DHSSPS modelling, which includes demographic change for the over 60s age group, indicates that the eyecare costs for 2011/12 are £60m and that these will rise to £66m by 2016/17 if current service arrangements are maintained. As highlighted throughout this document, there is evidence from elsewhere that opportunities exist in eyecare services, through partnership working, to manage service demand better, further improve clinical quality and maximise use of resources.

- 5.8 The £60m (revenue) estimate for 20011/12 includes £20m for the funding of General Ophthalmic Services (see paragraphs 3.41-3.44 for more detail of breakdown costs). These figures do not include the funding of relevant screening programmes or physical/ sensory, children's or older people's programmes of care. Future funding for Eyecare Partnership Schemes would be the responsibility of the HSC Board as part of a *TYC* approach to population planning, the reconfiguration of services and Quality Improvement and Cost Reduction (QICR) approaches. It is not anticipated that the overall financial envelope (£20m) for current GOS services will be increased beyond normal inflationary uplifts
- 5.9 In addition to the above funding arrangements, there may be opportunities to utilise waiting list initiatives to reduce waiting times and manage demand better in the primary and community sectors.
- 5.10 Any ICT changes to augment electronic payment systems, e-referrals, communication and telemedicine would be subject to business case analysis on both capital and revenue costs. Pressures arising from new and innovative technologies, equipment and specialist medicines, and associated infrastructure costs would also be subject to this process.

Summary

- 5.11 Section 5 focuses on implementation. The DHSSPS has asked the HSC Board and Public Health Agency to co- lead on implementation working in collaboration with Local Commissioning Groups, HSC Trusts, primary care practitioners and other organisations. Subject to Assembly approval, the DHSSPS will consider taking forward new primary legislation to extend the Listing of individual ophthalmic practitioners who provide HSC funded General Ophthalmic Services.
- 5.12 Accountability and financial arrangements for implementation of the strategy are identified.

Annex 1

VISION 2020 – The Global Initiative for the Elimination of Avoidable Blindness

1. The UK Vision Strategy (led by RNIB) was launched in April 2008 in response to the World Health Assembly Resolution of 2003, which urged the development and implementation of plans to tackle vision impairment - the “Vision 2020” initiative. The UK Vision Strategy aims to:

 - Improve the eye health of the people of the UK
 - Eliminate avoidable sight loss and deliver excellent support to those with a visual impairment
 - Enhance the inclusion, participation and independence of blind and partially sighted people
2. With regard to community eye health, the Vision Strategy specifically aims to address public understanding of the nature of eye disease and the risk factors that may contribute to sight loss. It is clear that many eye conditions, such as glaucoma, one of the main causes of blindness and amblyopia are treatable if detected early enough. Late presentation is therefore a key component in the challenges posed by eye disease in the community. Improved co-ordination of care between ophthalmology, GOS optometry and orthoptics may in time help us to counter these challenges by creating an increased emphasis on eye health in the wider community and an increased understanding of the benefits of regular eye examination within certain risk groups.
3. The Vision Strategy Implementation (Northern Ireland) Group (VSI Group) has been set up to take forward the key components of the UK Vision Strategy in Northern Ireland. Government has endorsed the broad principles of the Vision Strategy and, while DHSSPS takes a lead role in the Northern Ireland Implementation Group, the VSI Group is cross-departmental and involves a total of seven key Departments together with representatives from Hospital Eye Services, Service Users and the

Voluntary Sector. The other Departments involved are: Office of First Minister and deputy First Minister; Department of Regional Development; Department of Culture, Arts and Leisure; Department of Education, Department of Employment and Learning; and Department of Social Development.

Reference: <http://www.vision2020uk.org.uk/>

Annex 2

STRATEGIC DOCUMENTS

Ten Year Tobacco Control Strategy for Northern Ireland (February 2012)

The overall aim of the Strategy is to create a tobacco-free society.

The key objectives, which have been carried forward from the Tobacco Action Plan 2003-2008, are: -

- fewer people starting to smoke;
- more smokers quitting; and
- protecting people from tobacco smoke

Service Framework for Cardiovascular Health and Wellbeing (June 2009)

The cardiovascular health and wellbeing service framework sets standards in relation to the prevention, assessment, diagnosis, treatment, care, rehabilitation and palliative care of individuals/communities who currently have or are at greater risk of developing cardiovascular disease.

Learning Disability Service Framework

This Framework aims to improve the health and wellbeing of people with a learning disability, their carers and families, by promoting social inclusion, reducing inequalities in health and social wellbeing and improving the quality of health and social care services, especially supporting those most vulnerable in our society. It was published in final format in September 2012.

The Learning Disability Service Framework is one of five Frameworks to be issued for implementation to date. These focus on the most significant causes of ill health and disability in Northern Ireland, namely: cardiovascular disease, respiratory disease, cancer, mental health and learning disability. Two further Frameworks, for children and young people and older people are currently at various stages of development.

Physical and Sensory Disability Strategy and Action Plan 2012 – 2015 (February 2012)

This strategy (2012 – 2015) confirms the Department's commitment to improving outcomes, services and support for people in Northern Ireland (NI) who have a physical, communication or sensory disability.

Living with Long Term Conditions – A Policy Framework (April 2012)

The purpose of this document is to provide a policy framework for the Health and Social Care Board (HSCB), Health and Social Care (HSC) Trusts, the Public Health Agency (PHA), the voluntary and community sectors and independent care providers that will help them plan and develop more effective services to support people with long term conditions and their carers. It provides a context within which commissioners and providers can share and extend good practice and develop and improve services and practices that deliver best outcomes for patients and carers.

Healthy Futures 2010 - 2015 - The Contribution of Health Visitors and School Nurses in Northern Ireland (March 2010)

Healthy Futures provides those working within child health services and broader stakeholders with information about the role and function of health visitors and school nurses within integrated children's services and describes the contribution of these services to improving health and reducing inequalities within the population.

Healthy Child, Healthy Future - A Framework for the Universal Child Health Promotion Programme in Northern Ireland (May 2010)

The framework sets out a clear core programme of child health contacts that every family can expect, wherever they live in Northern Ireland, recognising that individual families are different and that there is a need to be flexible and innovative to ensure that all families are able to access and benefit from the advice, support and services that are available to them.

Quality 2020 A 10-Year Strategy to Protect and Improve Quality in Health and Social Care in Northern Ireland (November 2011)

This strategy is designed to protect and improve quality in health and social care over the next 10 years.

Aging in an Inclusive Society (OFMDFM - 2012)

This strategy aims to ensure that age related policies and practices create an enabling environment, which offers everyone the opportunity to make informed choices so that they may pursue healthy, active and positive ageing.

Annex 3

12 Principles of Transforming Your Care

The Review identified 12 major principles for change, which should underpin the shape of the future model proposed for health and social care.

1. Placing the individual at the centre of any models by promoting a better outcome for the service-user, carer and their family.
2. Using outcomes and quality evidence to shape services.
3. Providing the right care, in the right place, at the right time.
4. Population-based planning of services.
5. A focus on prevention and tackling inequalities.
6. Integrated care - working together.
7. Promoting independence and personalisation of care.
8. Safeguarding the most vulnerable.
9. Ensuring sustainability of service provision.
10. Realising value for money.
11. Maximising the use of technology.
12. Incentivising innovation at a local level.

Annex 4

Extract from the General Ophthalmic Services (Northern Ireland)

Regulations 2007 SR2007 No. 436

Schedule 1 – Terms of Service

Testing of Sight

1.—(1) A contractor shall, having accepted pursuant to the regulations an application for the testing of sight, test the sight of a patient to determine whether the patient needs to wear or use an optical appliance, and on so doing shall fulfil any duty imposed on him by, or in Regulations made under, section 26 of the Optician's Act 1989.

(2) Where a contractor or an ophthalmic medical practitioner or optometrist assisting him in the provision of general ophthalmic services is of the opinion that a patient whose sight he has tested pursuant to sub-paragraph (1)—

- (a) shows on examination signs of injury, disease or abnormality in the eye or elsewhere which may require medical treatment; or
- (b) is not likely to attain a satisfactory standard of vision notwithstanding the application of corrective lenses;

he shall, if appropriate, and with the consent of the patient,

- (i) refer the patient to an ophthalmic hospital,
- (ii) inform the patient's doctor that he has done so, and
- (iii) give the patient a written statement that he has done so, with details of the referral.

(3) Where a contractor tests the sight of a patient diagnosed as suffering from diabetes or glaucoma he shall inform the patient's doctor of the results of the test.

(4) Where a contractor issues to a patient a prescription for glasses, he shall, immediately thereafter, require the patient to acknowledge its receipt on a sight test form.

(5) A prescription for glasses issued following a testing of sight under general ophthalmic services shall be completed by the method recommended in Appendix A to British Standard 3521: 1962 (Glossary of Terms relating to Ophthalmic Lenses and

Spectacle Frames) published by the British Standards Institution, as effective on the date of its publication, and shall comply with any requirements as to its form specified in the Statement for the purposes of payment in respect of the sight test.

Annex 5

Children's Eye Assessment Flow chart

72 hours	Eye exam (including red reflex) carried out by Maternity Health Care Staff, refer to Ophthalmology, if appropriate.
8 wks	GP Eye exam (including red reflex).
8wks – 2 yrs	No formal Eye exam carried out. If parent or professional observes a squint or suspects the vision is reduced then a referral should be made to Orthoptics.
2 – 2½ yrs	2 Year Vision Assessment Tool – to be carried out on ALL children, combined with clinical observation.
2½ yrs – P1	No eye assessment carried out in this period HV to test ONLY if squint observed or reduced vision suspected by parent or professional. Refer if indicated with results of tests.
P1	P1 Universal Screen by School Health.

Annex 6

Glossary of Terms

Hospital Eye Services – Hospital Based Eyecare Services where a patient can be examined and treated by an ophthalmologist, orthoptist, optometrist, ophthalmic nurse or ophthalmic technician.

Integrated Care Partnerships -The development of seamless working across the interface between primary, community and acute care to improve access to assessment, diagnostics and treatment and the development of a "skills mix" of specialists and generalists for nurses, AHPs, GP's and other clinicians working in primary and community care.

Local Commissioning Groups (LCGs) – LCGs are responsible for the commissioning of health and social care by addressing the care needs of their local population. They also have responsibility for assessing health and social care needs; planning health and social care to meet current and emerging needs; and securing the delivery of health and social care to meet assessed needs.

<http://www.hscboard.hscni.net/LCG/index.html>

NICE – National Institute for Health and Clinical Excellence – NICE is an independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health.

<http://www.nice.org.uk/>

Optometry NI – Optometry Northern Ireland co-ordinates, channels and represents the views and interests of optometrists and dispensing opticians in Northern Ireland to all stakeholders, including DHSSPS. It includes representation from all the major optical bodies across the UK including the College of Optometrists, FODO, AOP, ABDO, the University of Ulster and NI hospital optometrists.

<http://www.optometryni.com/>

Primary Care Services – Services provided by GP practices, dental practices, community pharmacies and optometric practices.

<http://www.dh.gov.uk/en/Healthcare/Primarycare/index.htm>

Public Health Agency - A multi-disciplinary, multi-professional body with a strong regional and local presence. PHA has four key functions:

- health and social wellbeing improvement;
- health protection;
- public health support to commissioning and policy development; and
- HSC research and development.

PHA was set up to provide a renewed and enhanced focus on public health and wellbeing by bringing together a wide range of public health functions under one organisation.

PHA is also required to create better inter-sectoral working, including enhanced partnership arrangements with local government, to tackle the underlying causes of poor health and reduce health inequalities.

<http://www.publichealth.hscni.net/about-us>

Referral Pathways – for the purposes of this document, the procedure whereby ophthalmic practitioners refer patients on to either their General Practitioner (GMP) or to the Hospital Eye Services (HES).

Refractive Error - A refractive error is a very common eye disorder. It occurs when the eye cannot clearly focus the images from the outside world. The result of refractive errors is blurred vision, which is sometimes so severe that it causes visual impairment.

The three most common refractive errors are:

- myopia (nearsightedness): difficulty in seeing distant objects clearly;
- hyperopia (farsightedness): difficulty in seeing close objects clearly; and
- astigmatism: distorted vision resulting from an irregularly curved cornea, the clear covering of the eyeball.

A fourth condition is presbyopia, which leads to difficulty in reading or seeing at arm's length. It differs from the other disorders in that it is linked to ageing and occurs almost universally.

<http://www.who.int/features/qa/45/en/index.html>

RNIB - Royal National Institute of Blind People is a leading voluntary sector organisation which represents the views of blind and partially sighted people and provides a range of information, support and advice services to almost two million people with sight loss across the UK.

<http://www.rnib.org.uk/aboutus/contactdetails/.../nireland.aspx>

Secondary Care Services – services provided in either a hospital setting or by staff contracted to provide services on behalf of the hospital. (From an ophthalmic perspective, these services will be delivered by Ophthalmologists, Hospital Optometrists or Orthoptists, and may be delivered in an Eye Department within a hospital or as an outreach service).

Stroke - A stroke is a serious medical condition that occurs when the blood supply to part of the brain is cut off.

Like all organs, the brain needs the oxygen and nutrients provided by blood to function properly. If the supply of blood is restricted or stopped, brain cells begin to die. This can lead to brain damage and possibly death.

Strokes are a medical emergency and prompt treatment is essential because the sooner a person receives treatment for a stroke, the less damage is likely to happen.

<http://www.nhs.uk/conditions/Stroke/Pages/Introduction.aspx>

The Board - refers to the Health and Social Care Board established under the Health and Social Care (Reform) Act (Northern Ireland) 2009 and which replaced the former four Health Boards.

<http://www.hscboard.hscni.net/>

Vision Impairment – This is an overarching term covering all aspects of impaired vision which cannot be corrected with a refractive correction (spectacles or contact lenses). It includes both severe sight loss / blindness and sight loss / partial sight, terms which are specifically designed within the blind registration process.

Annex 7

Acronyms

A&E	Accident and Emergency
ABDO	Association of British Dispensing Opticians
AMD	Age Related Macular Degeneration
AOP	Association of Optometrists
BSO	Business Services Organisation
CEP	Community Engagement Project
CREST	Clinical Resource Efficiency Support Team
DHSSPS	Department of Health, Social Services and Public Safety
ECLO	Eye Care Liaison Officer
ED	Emergency Department
FODO	Federation of Dispensing Opticians
GMP	General Medical Practitioner
GOC	General Optical Council
GOS	General Ophthalmic Services
GP	General Practitioner
GSL	General Sales List
HES	Hospital Eye Service
HSC	Health and Social Care

HV	Health Visitor
ICATS	Integrated Clinical Assessment and Treatment Service
ICP	Integrated Care Partnership
ICT	Information and Communication Technology
IOP	Intraocular Pressure
IS1	Outpatients Independent Sector Activity
LCG	Local Commissioning Group
MS	Multiple Sclerosis
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
OMP	Ophthalmic Medical Practitioner
P	Pharmacy
P1	Primary One
PHA	Public Health Authority
POM	Prescription Only Medicine
QICR	Quality Improvement Cost Reduction
QOAR	Quarterly Outpatient Activity Return
QOF	Quality Outcomes Framework
RAES	Regional Acute Eye Services
RCGP	Royal College of General Practitioners
RNIB	Royal National Institute of Blind People

RQIA	Regulation and Quality Improvement Authority
SI	Statutory Instrument
SR	Statutory Rule
TYC	Transforming Your Care
VFM	Value for Money
VSI	Vision Strategy Implementation
WHO	World Health Organisation
WTE	Whole Time Equivalent

Annex 8

Bibliography

Ageing populations: the challenges ahead. Christensen K, Doblhammer G, Rau R, Vaupel JW. Lancet. 2009 Oct 3;374(9696):1196-208. Review

Association of Optometrists: The Economic Impact of Free Eye Examinations in Scotland (May 2012)

Australia Study: Five-Year Incidence of Bilateral Cause-Specific Visual Impairment in the Melbourne Visual Impairment Project. Dimitrov PN, Mukesh BN, McCarty CA, Taylor HR. Invest Ophthalmol Vis Sci. 2003 Dec;44(12):5075-81

College of Optometrists Clinical Audit Framework for Optometric Practice 1 November 2004, London

Commissioning Plan Direction, DHSSPS in exercise of powers conferred – Health and Social Care (Reform) Act (Northern Ireland) 2009(a)

CREST: A Blueprint for Diabetes Care in Northern Ireland in the 21st century (2003)
Department of Health, England: Commissioning Toolkit for Community Based Eyecare Services (2007)

Department of Health, England: General Ophthalmic Services Review (2007)

Department of Health, England: Guidance on the General Ophthalmic Services Contract (2008)

Department of Health, Social Services and Public Safety: Commissioning Plan Direction (produced annually)

Department of Health, Social Services and Public Safety: Fit and Well-Changing Lives (2012-2022); A 10 year public health strategic framework

Department of Health, Social Services and Public Safety: Health Child, Healthy Future - A framework for the Universal Child Health Promotion Programme in Northern Ireland (2010)

Department of Health, Social Services and Public Safety: Healthy Futures (2010-2015) - The Contribution of Health Visitors and School Nurses in Northern Ireland

Department of Health, Social Services and Public Safety: Learning Disability Service Framework (2012)

Department of Health, Social Services and Public Safety: Living with Long Term Conditions (2012)

Department of Health, Social Services and Public Safety: Physical and Sensory Disability Strategy and Action Plan (2012-2015)

Department of Health, Social Services and Public Safety: Quality 2020-A ten year strategy to protect and improve quality in health and social care in Northern Ireland (2012)

Department of Health, Social Services and Public Safety: Service Framework for Cardiovascular Health and Wellbeing (2009)

Department of Health, Social Services and Public Safety: Ten Year Tobacco Control Strategy for Northern Ireland (2012)

Department of Health, Social Services and Public Safety: Transforming Your Care - A review of Health and Social Care in Northern Ireland (2011)

Department of Health, Social Services and Public Safety: VFM Audit - Allied Health Professionals - (Podiatrists, Dietetics, Orthoptics) Project_898/ITT_1595 FINAL REPORT (June 2010) Advisory

Department of Health, Social Services and Public Safety: Vision 20/20; WHO Initiative for elimination of avoidable blindness which led to the UK Vision Strategy in 2008

Europe Study: Age-Specific Prevalence and Causes of Blindness and Visual Impairment in an Older Population. Klaver CC, Wolfs RC, Vingerling JR, Hofman A, de Jong PT. Arch Ophthalmol. 1998 May;116(5):653-8

General Ophthalmic Services Regulations (Northern Ireland) 2007 (SR 2007 No. 436)

General Optical Council registers optometrists, dispensing opticians, student opticians and optical businesses in the UK. www.optical.org

Health and Personal Social Services (Northern Ireland) Order 1972 (SI No. 1265 (N.I. 14))

Health and Social Care (Reform) Act (Northern Ireland) 2009

Incidence of Age-Related Cataract. The Beaver Dam Eye Study. Klein BE, Klein R, Lee KE. Arch Ophthalmol. 1998 Feb;116(2):219-25

National Institute for Health and Clinical Excellence, www.nice.org.uk

NHS: High Quality Care For All - Primary Care & Community Services: Improving Eye Health Services (2009)

NHS: Primary Care Contracting - Community Eye Care Services: Review of Local Schemes for Low Vision, Glaucoma and Acute Care (January 2007)

NHS: Primary Care Contracting - Step-by-Step Guide to Commissioning Community Eye Care Services (October 2007)

NICE: Falls- the Assessment and Prevention of Falls in Older People. Clinical Guideline 21 (2004)

NIICE: Glaucoma – Diagnosis and management of chronic open angle glaucoma and ocular hypertension. Clinical Guideline 85 (2009)

Office of the First Minister and Deputy First Minister: Aging in an Inclusive Society (2012)

Prevalence of Visual Impairment in the United States. Vitale S, Cotch MF, Sperduto RD. JAMA. 2006 May 10;295(18):2158-63

RCGP Curriculum Statement 15.5 Eye Problems v 1.1, Feb 09

Refractive error and visual impairment in school children in Northern Ireland – O'Donoghue L, McClelland JF, Logan NS, Rudnicka AR, Owen CG, Saunders KJ. Br J Ophthalmol 2010 94 (9) 1155 – 1159

RNIB: Community Engagement Project (CEP) in West Belfast

RNIB: Implementation Action Plan for Northern Ireland April 2012 - March 2013. Vision Strategy

RNIB: The Cost of Sight Loss in the UK - Campaign report 23 (2004). ISBN 1 85878 631 2

Scottish Government: Review of Community Eyecare Services in Scotland. Final Report. (December 2006)

Screening for visual impairment in elderly patients with hip fracture: validating a simple bedside tool Eye 2005 19 55-59 Squirell DM, Kenny J, Mawer N et al

The Incidence and Prevalence of Amblyopia detected in childhood. Thompson JR, Woodruff G, Hiscox FA, Strong N, Minshull C. Public Health;105;455-462

The Royal College of Optometrists and British Geriatric Society: The Importance of Vision in Preventing Falls (June 2011)

UK Study: Causes of visual impairment in people aged 75 years and older in Britain; an add-on study to the MRC Trial of Assessment and Management of Older People in the Community. Evans JR, Fletcher AE, Wormald RP; MRC Trial of Assessment and Management of Older People in the Community. Br J Ophthalmol. 2004 Mar;88(3):365-70

Unrecognised and unregistered visual impairment. Robinson R, Deutsch J, Jones HS, Youngson-Reilly S, Hamlin DM, Dhurjon L, Fielder AR. Br J Ophthalmol. 1994 Oct;78(10):736-40

USA Study: Changes in visual acuity in a population over a 15 year period: the Beaver Dam Eye Study. Klein R, Klein BE, Lee KE, Cruickshanks KJ, Gangnon RE. Am J Ophthalmol. 2006 Oct;142(4):539-49

Wales Vision Strategy, Implementation Plan 2010-2014, Welsh Advisory Group

Welsh Eye Care Initiative: funded by the Welsh Government: www.wales.nhs.uk