WEST BELFAST EYE HEALTH EQUITY PROFILE

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1. BACKGROUND

1.1 EYE HEALTH

Eye health is a major determinant of the quality of one's life. With good eye health it is very easy to take vision for granted. People with sight impairment face significant challenges in everyday life. In March 2008, 4,186 people in Northern Ireland were registered as severely sight impaired (blind) and 2,830 were registered as sight impaired (partially sighted) with the five acute provider HSC Trusts[1]. These figures represent the severest end of the spectrum of poor eye health in Northern Ireland but do not give the complete picture. Modelling produced for a report prepared for the Royal National Institute of Blind People (RNIB) estimates that in Northern Ireland there may be 3,887 blind people and a further 10,801 who are partially sighted[2].

Table 1: Number of Persons Registered as Blind or Partially Sighted in HSC Trusts (31 March 2008)[1]

HSC Trust	Blind Persons	Partially Sighted Persons
Belfast HSC Trust	1,149	488
Northern HSC Trust	1,520	818
South Eastern HSC Trust	386	909
Southern HSC Trust	604	358
Western HSC Trust	527	257
Northern Ireland	**4,186**	**2,830**

NB: The information recorded by HSC Trusts is not a register of those blind or partially sighted, as people may refuse to have their names added to relevant HSC Trust records.

Table 2: Estimated number of persons registered partially sighted in Northern Ireland by Eye Condition and Year[2]

Eye Condition	2010	2015	2020
Age-related Macular Degeneration	3,103	3,733	4,311
Cataract	5,169	5,792	6,528
Diabetic Retinopathy	1,079	1,171	1,255
Glaucoma	1,450	1,651	1,887
Total	**10,801**	**12,347**	**13,981**

[1] NI Assembly Question Response (AQW 2705/09)
[2] RNIB, Future sight loss UK (2): An epidemiological and economic model for sight loss in the decade 2010-2020

Table 3: Estimated number of persons registered blind in Northern Ireland by Eye Condition and Year[2]

Eye Condition	2010	2015	2020
Age-related Macular Degeneration	2,075	2,523	2,996
Cataract	732	811	888
Diabetic Retinopathy	638	707	796
Glaucoma	442	508	586
Total	**3,887**	**4,549**	**5,266**

Poor eye health leads to significant costs to the individual in terms of their quality of life and challenges they face but also to society through both direct medical costs and wider societal costs. Table 4 below outlines direct and total costs as they have been calculated for Northern Ireland for 2010 for a number of eye conditions[2].

Table 4: Calculated Costs by Eye Condition for Northern Ireland (2010)[2]

	Direct Health Care Cost	Total Cost of Illness	Health Cost as % of Total Cost
AMD	£7,733,509	£39,106,677	19.8%
Cataract	£11,511,144	£25,035,164	46.0%
Diabetic Retinopathy	£4,457,447	£17,901,214	24.9%
Glaucoma	£5,726,137	£13,706,411	41.8%
Total	**£29,428,237**	**£95,749,466**	**30.7%**

Eye health conditions and systemic conditions share a number of risk factors such as high blood pressure, high cholesterol, smoking, obesity, poor nutrition and diabetes.

The five most common forms of visual impairment which can result in loss of vision are: refractive error; cataract; age-related macular degeneration (AMD); diabetic retinopathy; and glaucoma. Many of these conditions show age and ethnic biases[3].

The following descriptions of AMD, cataract, diabetic retinopathy and glaucoma are modified versions from a series of online patient information leaflets produced by the RNIB and The Royal College of Ophthalmologists.

[3] O'Donnell, K., Eye care in the UK: Epidemiology, intervention and Ethnicity. 2009, PHAST.

1.1.1 AGE-RELATED MACULAR DEGENERATION (AMD)[4]

Age-related macular degeneration (AMD) is an eye condition that affects a part of the retina at the back of the eye, which is called the macula.

AMD causes problems with central vision, but does not lead to total loss of sight and is not painful. Central vision is the vision you use when you're looking directly at something, for example when you're reading, looking at photos or watching television. AMD may make this central vision distorted or blurry and, over a period of time, it may cause a blank patch in the centre of your vision. Symptoms vary from person to person, but usually the first problems people notice are with their ability to see detail.

Types of AMD

There are two main types of AMD - "wet" AMD and "dry" AMD.

Dry AMD

Dry AMD is the more common type of AMD. It usually develops very slowly and causes a gradual change in central vision. Dry AMD usually takes a long time, maybe a number of years to get to its final stage. At its worst, dry AMD causes a blank patch in the centre of vision in both eyes. But it doesn't affect peripheral vision, so never leads to total blindness.

At the moment there is no treatment for dry AMD.

Wet AMD

About 10-15 per cent of people who develop AMD have wet AMD. People develop wet AMD when the cells of the macula stop working correctly and the body starts growing new blood vessels to fix the problem. Unfortunately, these blood vessels grow in the wrong place and cause swelling and bleeding underneath the macula. This new blood vessel growth, medically known as neo-vascularisation, causes more damage to the macula and eventually leads to scarring. Both the new blood vessels and the scarring damage the person's central vision and may lead to a blank patch in the centre of their sight.

Wet AMD can develop very quickly, making serious changes to central vision in a short period of time. Treatment is now available for wet AMD, which stops the new blood vessels from growing and damaging the macula. This treatment usually needs to be given quickly before the new blood vessels do too much damage to the macula. If the blood vessels are left to grow, the scarring and the sight loss it causes is usually permanent. Wet AMD doesn't affect peripheral vision, so it doesn't lead to total blindness.

[4] http://www.rnib.org.uk/eyehealth/eyeconditions/conditionsac/Pages/amd.aspx

1.1.2 CATARACT[5]

Cataracts are a very common eye condition. As we get older the lens inside our eye gradually changes and becomes less transparent. A lens that has turned misty, or cloudy, is said to have a cataract. Over time a cataract can get worse, gradually making vision mistier. A straightforward operation can usually remove the misty lens and replace it with an artificial lens to improve vision.

Cataracts usually develop slowly and symptoms vary. Most people will eventually develop a cataract in both eyes, though one eye may be affected before the other. Gradually, their sight becomes cloudier and more washed out. Edges of stairs or steps become more difficult to see and they may feel they need a lot more light to read smaller print.

Another common symptom of a cataract is a problem with bright lights. Lights can seem to glare and the headlights of a car may dazzle more than they used to. Some also have a slight change in colour vision - things may appear more yellow than before. This often happens if one eye develops a cataract first and colours look different when you compare one eye with the other.

Treatment

The only effective treatment for cataracts is surgery to remove the cloudy lens and replace it with an artificial lens implant.

Removing cataracts

The operation to remove cataracts can be performed at any stage of their development. Most people choose to have their cataracts removed when the change in their vision starts to cause them difficulties in everyday life. The timing of this varies from person to person.

Surgery

The lens in the eye is made up of different layers and the outside layer is called the lens capsule. During the operation, the ophthalmologist cuts through the front of the lens capsule so they can reach the lens inside. Using the same instrument, the ophthalmologist can break up your lens and the cataract inside the eye, and remove it using suction. The lens capsule is kept in place so that the artificial lens implant can be placed inside it. The tiny implant is folded so that it can be put into the eye through the same instrument that is used to remove the cataract. Once it reaches the right position, the ophthalmologist unfolds the artificial lens so that it sits in the right place inside the lens capsule.

[5] http://www.rnib.org.uk/eyehealth/eyeconditions/conditionsac/Pages/cataract.aspx

Complications

Cataract surgery is generally very successful. Only about three per cent of people who have cataracts experience complications. The most common complications can be dealt with and usually don't affect sight in the long term.

1.1.3 Diabetic Retinopathy[6]

Diabetes can affect the eye in a number of ways:

- The most serious eye condition associated with diabetes involves the network of blood vessels supplying the retina. This condition is called diabetic retinopathy.
- The unusual changes in blood sugar levels resulting from diabetes can affect the lens inside the eye, especially when diabetes is uncontrolled. This can result in blurring of vision which comes and goes over the day, depending on your blood sugar levels.
- A longer term effect of diabetes is that the lens can go cloudy and this is called a cataract.

Not everyone who has diabetes develops an eye complication. Of those that do, many people have a very mild form of retinopathy which may never progress to a sight threatening condition.

Diabetes affects the tiny blood vessels of the eye and if they become blocked or leak then the retina and possibly your vision will be affected. The extent of these changes determines what type of diabetic retinopathy you have. Forty per cent of people with type 1 diabetes and twenty per cent with type 2 diabetes will develop some sort of diabetic retinopathy.

Background diabetic retinopathy

This is the most common type of diabetic retinopathy and many people who have had diabetes for some time will have this early type. The blood vessels in the retina are only very mildly affected, they may bulge slightly (microaneurysm) and may leak blood (haemorrhages) or fluid (exudates). As long as the macula is not affected, vision is normal. Annual retinal screening will keep a close check on these early changes and ensure that any signs of progression to more serious stages of retinopathy are detected early.

[6] http://www.rnib.org.uk/eyehealth/eyeconditions/eyeconditionsdn/Pages/diabetes.aspx

Maculopathy

Maculopathy means that the macula is affected by retinopathy. If this happens, central vision will be affected making it difficult to see detail such as recognising people's faces in the distance or seeing detail such as small print. Most maculopathy can be treated with laser with the aim of preserving as much vision as possible. The amount of central vision that is lost varies from person to person.

Proliferative diabetic retinopathy

If diabetic retinopathy progresses, it can cause the larger blood vessels in the retina to become blocked. These blockages can result in areas of the retina becoming starved of oxygen. This is called ischaemia. If this happens the eye is stimulated into growing new vessels, a process called neo-vascularisation.

Unfortunately, these new blood vessels are weak, and grow in the wrong place. As a result, these blood vessels can bleed very easily which may result in large haemorrhages over the surface of the retina or into the vitreous gel. These types of haemorrhages can totally obscure the vision in the affected eye as light is blocked by the bleed. With time the blood can be reabsorbed and vision can improve.

Extensive haemorrhages can lead to scar tissue forming which pulls and distorts the retina. This type of advanced diabetic eye disease can result in the retina becoming detached with the risk of serious sight loss.

Only between 5 and 10 per cent of all diabetics develop proliferative retinopathy. It is more common in people with type 1 diabetes than type 2. Sixty per cent of type 1 diabetics show some signs of proliferative disease after having diabetes for 30 years.

Treatment for diabetic retinopathy

Most sight-threatening problems caused by diabetic retinopathy can be managed by laser treatment if detected early enough. The aim of laser treatment is to prevent bleeding or to prevent the growth of new blood vessels. The earlier the treatment is given the more effective it is.

Treatment for advanced diabetic retinopathy

If the eye condition becomes more severe and the gel inside the eye becomes cloudy due to haemorrhages, or if scar tissue forms causing retinal detachment, it may be possible to have an operation called a vitrectomy. This procedure involves the vitreous gel being removed and replaced with a clear solution that light can pass more easily through.

1.1.4 GLAUCOMA[7]

Glaucoma is the name given to a group of eye conditions which cause optic nerve damage and can affect vision. Glaucoma damages the optic nerve at the point where it leaves the eye. Glaucoma damage may be caused by raised eye pressure or a weakness in the optic nerve. Eye pressure is not connected to blood pressure.

Different types of glaucoma

There are four main types of glaucoma:

- Primary open angle glaucoma (POAG) also known as chronic glaucoma
- Acute angle closure glaucoma
- Secondary glaucoma
- Developmental glaucoma.

Primary open angle glaucoma

Primary open angle glaucoma (POAG) is the most common type of glaucoma. Peripheral vision, which is the vision people have around the edge of what they are looking directly at, gradually gets worse if they have POAG. As their side vision is not as sensitive as their reading vision they may not notice any changes in their sight. The centre of the visual field is affected last so that eventually it is like looking through a long tube - this is so-called "tunnel vision".

Treating POAG

All glaucoma treatments aim to prevent further damage to the patient's sight. However, treatment cannot repair or improve damage that may have already been caused by high pressure before it was found. Treatment to lower the eye pressure usually starts with eye drops. Other treatment options include laser treatment or trabeculectomy surgery.

Acute angle closure glaucoma

Acute glaucoma is much less common than POAG. Acute angle closure glaucoma happens when there is a sudden and more complete blockage to the flow of aqueous fluid from the eye. This is nearly always very painful and causes permanent damage to the patient's sight if not treated promptly.

Acute glaucoma is an emergency and needs to be treated quickly if sight is to be saved.

[7] http://www.rnib.org.uk/eyehealth/eyeconditions/eyeconditionsdn/Pages/glaucoma.aspx

Treating acute glaucoma

Delay in treatment may cause a permanent loss of sight in the affected eye. An acute attack, if treated early, can usually be brought under control in a few hours.

Ocular hypertension

Ocular hypertension means high eye pressure and is defined as eye pressure above 22mmHg. Most people's eye pressure is between 16-21mmHg. Sometimes eye pressure can be a bit below or above this range, which may be completely normal and not need any treatment. Eye pressure can go up and down slightly quite naturally but it does not go up with your blood pressure. Therefore, stress does not cause high eye pressure or glaucoma.

Ocular hypertension is not the same as having glaucoma. A diagnosis of glaucoma means that the pressure in the eye has caused some damage to the optic nerve.

Due to a change in NHS referral guidelines used by optometrists, more people are being seen at hospital with suspected ocular hypertension. Not everyone with ocular hypertension will develop glaucoma or need treatment but some will. Ocular hypertension is treated with drops in the same way as chronic glaucoma (POAG) and the patient's eye health should be monitored regularly at a hospital.

Low tension glaucoma

Low tension, or normal tension glaucoma, means that the optic nerve is damaged like it is in other types of glaucoma but the eye pressure is well within normal ranges.

Secondary glaucoma

An increase in ocular pressure can also occur as a secondary effect of other eye conditions, operations, injuries or medications. This can lead to damage to the vision and when this happens it is called secondary glaucoma. The treatment in each case is always aimed at reducing the pressure as well as treating the cause.

Developmental glaucoma

Developmental or congenital glaucoma affects young babies and is a very rare condition. It is usually identified in the early years and managed by specialist clinics.

1.2 Policy Context

1.2.1 United Kingdom Policy[8]

The UK Vision Strategy was developed in response to the World Health Assembly VISION2020 resolution to reduce avoidable blindness by the year 2020 and improve support and services for blind and partially sighted people.

The UK Vision Strategy seeks a major transformation in the UK's eye health, eye care and sight loss services. The approach is cross-sectoral. Three strategic outcome areas are identified:

1. **Improving the eye health of the people of the UK**
   Five-year aim: To raise awareness and understanding of eye health among the public, including those people most at risk of eye disease, to allow every individual to develop personal responsibility for eye health and to achieve maximum eye health for all. To raise awareness of eye health among health and social care practitioners, and to ensure the early detection of sight loss and prevention where possible.

2. **Eliminating avoidable sight loss and delivering excellent support for people with sight loss**
   Five-year aim: To improve the coordination, integration, reach and effectiveness of eye health services, and services and support for those people with permanent sight loss.

3. **Inclusion, participation and independence for people with sight loss**
   Five-year aim: To improve the attitudes, awareness and actions of service providers, employers and the public towards people with sight loss and to remove significant barriers to inclusion, so that people with sight loss can exercise independence, control and choice. To achieve improved compliance with disability discrimination legislation.

The UK Vision Strategy is underpinned by the following values:

- Fair and equitable access for all members of society to eye health, eye care and sight loss services.
- Person-centred delivery of excellent services and support in the most appropriate way for each individual.
- Evidence-based policies and services to guide resource allocation and effective services.
- Awareness of and respect for people with sight loss and full compliance with equality legislation.

[8] UK Vision Strategy: Setting the direction for eye health and sight loss services. April 2008, Vision 2020 UK.

1.2.2 Northern Ireland Policy[9]

All four governments of the UK have given the UK Vision Strategy their support.

The Vision Strategy (Northern Ireland) builds on the work of the Regional Steering Group for Sensory Impairment, which is bringing forward the recommendations from the Social Services Inspectorate Report 'Challenge and Change' (2005). The Strategy has three key outcomes, which reflect those identified in the UK Vision Strategy:

1. **Improving the eye health of the people of Northern Ireland.**

2. **Eliminating avoidable sight loss and delivering excellent support to people with sight loss.**

3. **Inclusion, participation and independence for people with sight loss.**

The Vision Strategy Implementation (Northern Ireland) Group

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. The Minister for Health, Social Services and Public Safety has endorsed the Vision Strategy and, while the department of health takes a lead role in the Northern Ireland Implementation Group, the VSI Group is cross-departmental and involves a total of seven key departments.

The VSI Group is outcome-led and meets three times each year to review progress towards the targets that have been set. It is led and chaired by RNIB NI. It is intended that, in due course, the VSI Group will develop cross-border, all-Ireland partnerships in the visual impairment field.

In the first instance, the VSI Group will address six main priorities drawn from the Vision Strategy. These are as follows:

Priority 1: Ending preventable sight loss.

Priority 2: Ensuring all written materials are presented in an accessible format.

Priority 3: Aiming for equal attainment in education

Priority 4: Maximising employment.

Priority 5: Maximising the independence of blind and partially sighted people through emotional support, training and confidence building.

Priority 6: Ending exclusion.

[9] Vision Strategy: Implementation Plan for Northern Ireland 2009-2012.

The VSI Group has set out targets and action plans to drive the achievement of these priorities. Priority Action Groups that include key stakeholders have been established by the relevant departments. These will take responsibility for each priority and report on progress to the main VSI Group.

Support for these objectives has been pledged by the establishment of an All Party Assembly Group on Visual Impairment. This Group was launched at Stormont Parliament Buildings on 28 October 2008.

The lead department for each priority is as follows:

Priority 1: Department of Health, Social Services and Public Safety.

Priority 2: Office of the First Minister and Deputy First Minister / Department for Regional Development / Department of Culture, Arts and Leisure.

Priority 3: Department of Education Northern Ireland / Education and Library Boards / Education and Skills Authority.

Priority 4: Department for Employment and Learning / Department for Social Development in Northern Ireland.

Priority 5: Department of Health, Social Services and Public Safety..

Priority 6: Department of Culture, Arts and Leisure / Department for Regional Development / Office of the First Minister and Deputy First Minister.

1.2.3 STRATEGIC CONTEXT

At the time of writing, an Eye Care Services Strategy for Northern Ireland, is under development. The strategy will seek to place the needs of the individual patient at its core with optimised integrated care pathways between community and specialist services. The strategy will need to address the needs of an ageing population. It will also need to maximise the primary care optometry resource to provide care closer to the patient's home and minimise unnecessary referrals into secondary care.

Health and Social Care in Northern Ireland has recently been reorganised under the Review of Public Administration. With a smaller number of provider Health & Social Care Trusts and a single Health & Social Care Board and single Public Health Agency the administrative structures have been streamlined. The health and social care system in Northern Ireland is seeking to realign itself to provide models of care consistent with the needs of the Northern Ireland population in the 21st Century. As part of this on-going realignment care pathways are being developed to place the patient/client at the centre of the service whilst making the most efficient use of the resources available. Across the health and social care sector there will be greater emphasis on public health initiatives and preventative work.

Primary Care Partnerships (PCPs), based on geographical boundaries, are being established across Northern Ireland. The PCPs will focus on pathway redesign and the shift of care from the secondary care sector to the primary and community care sectors where care can be provided closer to the patient.

Recent work undertaken by the Health and Social Care Board indicates that the total number of New and Review patients seen within general and specialist ophthalmology clinics are 22,200 and 71,000 per annum, respectively. Additionally, 20,000 patients per annum attend Accident and Emergency Services for ophthalmological-related assessment.

In April 2010 the Health and Social Care Board established and Ophthalmology Demand Management Group (ODMG) to take forward the implementation in Northern Ireland of the NICE Guidelines on Glaucoma and to undertake demand / capacity review of services with the aims of improving patient pathways, optimising the use of available resources and addressing issues of concern such as the outpatient review backlog.

2. AIMS AND OBJECTIVES

RNIB is developing five local sight loss prevention projects called 'community engagement projects' (CEPs) to develop effective ways of targeting priority communities namely people of Caribbean, African and South Asian origin and people on low income.

The five community engagement projects will be located throughout the UK in:

- Bradford
- Hackney
- Cwm Taf
- Glasgow
- West Belfast

The *West Belfast Eye Health Equity Profile* is designed to inform the development of the Community Engagement Project (CEP) for the RNIB and provide information for a wider Eye Health Strategy for the Public Health Agency (PHA) and the Health & Social Care Board (HSCB) with the aim of improving the equity, outcomes and quality of life for people with or at risk of poor eye health.

Objectives:

- To carry out an assessment of the eye health needs of the adult population in the location who have, or are at risk of, poor eye health.
- To assess prevalence of the four main eye conditions.
- To assess current eye services and equity of access.
- To identify unmet need.
- To make recommendations for local action to be developed as part of the CEP and influence local commissioning and care pathways.

3. West Belfast Community Engagement Project

3.1 Geography & Demography

3.1.1 Northern Ireland

Northern Ireland covers an area of 5,345 square miles – around two-thirds the size of Wales – with a population of 1.8 million people, making up approximately 3% of the population of the UK.

The population structure of Northern Ireland differs to that for the United Kingdom as a whole. The Northern Ireland population is relatively young in comparison to the UK population, with the younger age bands contributing a greater proportion to the population.

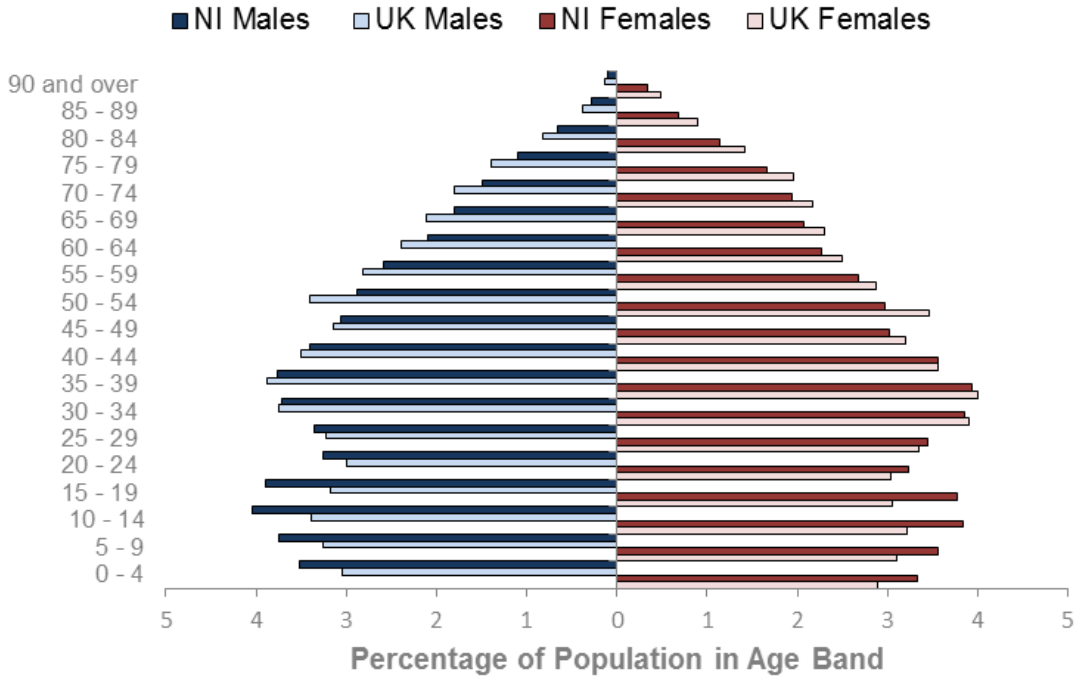


Figure 1: Population Pyramids for the UK and Northern Ireland
Source: 2001 Census

The implication of the differing population structures is that care is required when generalising prevalence rates of eye conditions in the UK to apply them to the Northern Ireland population.

Additionally, future planning will also have to take account of the ageing of the Northern Ireland population. As table 5, overleaf, shows the over 65s will make up an increasing proportion of the population over the next 25 years.

Table 5: Projected make up of NI population, 2008-2033 (percentages)[10]

	2008	2013	2018	2023	2028	2033
Children (Under 16)	21	21	21	20	19	19
Adult Population (16-64)	65	64	63	61	60	59
Elderly (65+)	14	15	17	18	20	22
Total	100	100	100	100	100	100

According to the 2001 census the majority of the Northern Ireland population is White, with only a very small percentage coming from other ethnic groups. Again, as with the differing age profile to the UK, comparing prevalence rates for eye conditions between NI and the UK needs to take account of the different ethnic mix of the two populations.

Table 6: Ethnic Mix of Northern Ireland Population in 2001

Ethnic Group	Percentage of persons in ethnic group
White	99.15
Irish Traveller	0.10
Mixed	0.20
Indian	0.09
Pakistani	0.04
Bangladeshi	0.01
Other Asian	0.01
Black Caribbean	0.02
Black African	0.03
Other Black	0.02
Chinese	0.25
Other Ethnic Group	0.08

Source: 2001 Census NISRA Dataset KS06 – Ethnic Group

[10] Statistics Press Notice – 2008-Based Population Projections, 21 October 2009, NISRA.

3.1.2 BELFAST LOCAL GOVERNMENT DISTRICT

Belfast LGD is one of 26 local government districts in Northern Ireland. It contains 51 of Northern Ireland's 582 electoral wards.

Figure 2 below illustrates the 51 wards that make up Belfast LGD with the 4 electoral wards covered by the eye health equity profile highlighted: Upper Springfield; Whiterock; Clonard and Falls.

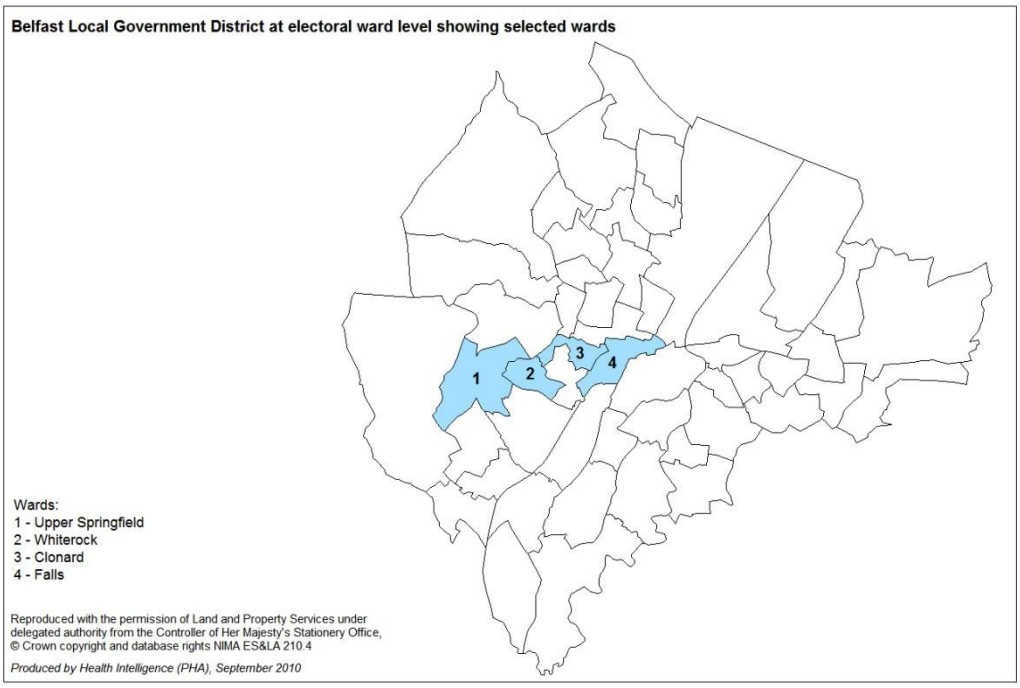


Figure 2: Belfast Local Government District with the 4 Electoral Wards Highlighted that Constitute the Area Covered by the Health Equity Profile

3.1.3 West Belfast CEP Area

The four electoral wards that the eye health equity profile covers are neighbouring wards within West Belfast.

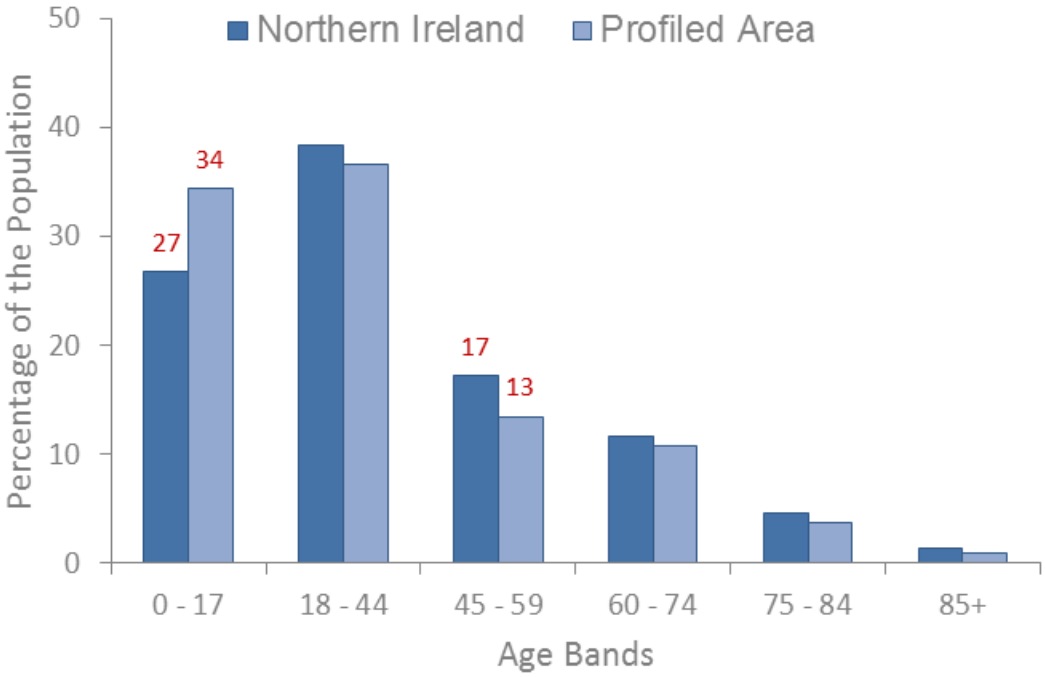


Figure 3: Comparison of Age Structure (in 2001) of NI Population with the Combined Population of the 4 Electoral Wards Covered by the Health Equity Profile

Source: 2001 Census NISRA Dataset KS02 – Age Structure

According to the 2001 Census the resident population of the 4 electoral wards included in this profile was 20,786. Figure 3 shows that the proportion of the CEP area population in the various age bands differed from the Northern Ireland population. In particular the proportion of the CEP area population in the 0 to 17 year age band was higher than that for the Northern Ireland population, while the proportion of the population in the 45 to 59 year old age band in the CEP area was lower than that for Northern Ireland.

As table 7 overleaf shows, the resident population of Northern Ireland is estimated to have increased by 89,736 (5.3%) between 2001 and 2008. In the same time period the population of the CEP area is estimated to have decreased by 816 (3.9%). This is in keeping with the overall trend of depopulation of Belfast with increasing population of areas outside of Belfast.

Table 7: Population Change in Northern Ireland and the CEP Area 2001-2008

Electoral Ward	Population (2001 Census)	Mid Year Population Estimate (2008)
Clonard	4,421	4,380
Falls	5,046	4,924
Upper Springfield	5,895	5,370
Whiterock	5,424	5,296
Total Population of CEP Area	**20,786**	**19,970**
Northern Ireland Population	**1,685,267**	**1,775,003**

Source:
2001 Census NISRA Dataset KS02 – Age Structure
NISRA Small Area Population Estimates 2008 detailed, Mid-Year Population Estimates 2008

Table 8: Population Profile for CEP Wards as per 2001 Census

	Clonard Ward	Falls Ward	Upper Springfield Ward	Whiterock Ward
Resident population	4421	5046	5895	5424
Persons under 16 years old (%)	26.4	28.6	32.1	31.7
Persons aged 60 and over (%)	18.1	18.3	13	13.4
Males (%)	47.1	45	46.4	46.7
Females (%)	52.9	55	53.6	53.3
Average age of population	34.5	33.7	30.3	31.4
Population density (persons per hectare)	72.37	42.05	23.56	69.65

Source: 2001 Census NISRA Datasets KS01 Usually Resident Population, KS02 Age Structure

Table 9: Comparison of CEP Area Population with Belfast LGD and NI Populations

	CEP Area	Belfast LGD	N.I
Resident population	20786	*277391*	*1685267*
Persons under 16 years old (%)	29.9	*21.7*	*23.6*
Persons aged 60 and over (%)	15.5	*19.7*	*17.6*
Males (%)	46.3	*46.8*	*48.7*
Females (%)	53.7	*53.2*	*51.3*
Average age of population	32.3	*36.6*	*35.8*
Population density (persons per hectare)	50.46	*24.15*	*1.19*

Source: 2001 Census NISRA Datasets KS01 Usually Resident Population, KS02 Age Structure

As table 9 shows the CEP area population represented 7.5% of the population of Belfast LGD and 1.2% of the Northern Ireland population in 2001. The population density of the CEP area is high in reflection of the urban nature of the area. The average age in the CEP Area shows that it has a relatively young population in comparison to both the population of Belfast LGD and the population of Northern Ireland.

Table 10: Estimated Population Profile for CEP Wards in 2008

	Clonard Ward	Falls Ward	Upper Springfield Ward	Whiterock Ward
Total population (2008)	4380	4924	5370	5296
Children (%) (2008)	23.7	23	25	28.7
Young Working Age Adults (%) (2008)	37.5	38	36.1	35.5
Older Working Age Adults (%) (2008)	23.6	23.2	25	23.4
Older People (%) (2008)	15.2	15.8	13.9	12.3
Population Change 2001-2008 (%)	-1.1	-3	-9.1	-2.3

Source for tables 10 & 11: NISRA Datasets: Small Area Population Estimates 2001-2008, Small Area Population Estimates 2008 detailed, Mid-Year Population Estimates 2008

Table 11: Comparison of CEP Area Population Profile with Population Profiles for Belfast LGD & Northern Ireland

	CEP Area	Belfast LGD	N.I
Total population (2008)	19970	*268323*	*1775003*
Children (%) (2008)	25.5	*19.5*	*21.5*
Young Working Age Adults (%) (2008)	36.7	*37*	*33.6*
Older Working Age Adults (%) (2008)	23.8	*25.9*	*28.3*
Older People (%) (2008)	14.2	*17.6*	*16.7*
Population Change 2001-2008 (%)	-4.1	*-3.2*	*5.1*

Table 11 provides additional detail on the changing population profiles between the 2001 Census and 2008 for the CEP area, Belfast LGD and Northern Ireland. The population of the CEP area overall saw a 4.1% reduction in its resident population. However table 10 shows that the reduction in resident population was most marked in the Upper Springfield electoral ward which saw an estimated 9.1% reduction in its resident population.

Table 12: Administrative Data for CEP Wards 2008

	Clonard Ward	Falls Ward	Upper Springfield Ward	Whiterock Ward
Total births (2008)	86	78	93	89
Male births (2008)	54	38	47	43
Female births (2008)	32	40	46	46
Births to unmarried mothers (%) (2008)	75.6	79.5	84.9	87.6
Median age of mothers of new-born babies (2008)	26	25	24	25
Median age of fathers of new-born babies (2008)	30	27	27	28
Deaths (2008)	53	81	49	66
Deaths to those aged under 75 (%) (2008)	50.9	59.3	53.1	42.4
Median age at death (2008)	74	72	73	78

Source: NISRA Datasets: Births 2008, Median Age of Parents 2008, Deaths to Under 75s 2008, Median Age at Death 2008

Table 13: Comparison of 2008 Administrative Data for CEP Area, Belfast LGD and Northern Ireland

	CEP Area	Belfast LGD	N.I
Total births (2008)	346	3883	25631
Male births (2008)	182	2017	13204
Female births (2008)	164	1866	12427
Births to unmarried mothers (%) (2008)	82.1	56.9	38.9
Deaths (2008)	249	2889	14907
Deaths to those aged under 75 (%) (2008)	51.8	39.1	37.7

Source: NISRA Datasets: Births 2008, Deaths to Under 75s 2008

Tables 12 and 13 provide administrative data in relation to the CEP area and contextualises these against the same data for Belfast LGD and for Northern Ireland.

The percentage of births to unmarried mothers in the CEP area is much higher than for Belfast LGD which in turn is higher than the percentage for the Northern Ireland population as a whole.

The CEP area accounted for a higher proportion of deaths in Northern Ireland in 2008 than would have been expected given its population size and that is before allowing for its young age profile. Of particular note was that the percentage of deaths occurring in the CEP area in those aged under 75 was much higher than for Belfast LGD and in comparison to the overall Northern Ireland figure. This points to a shorter life expectancy for residents of the CEP area compared to other Northern Ireland residents.

3.2 DEPRIVATION

The aim of the West Belfast Eye Health Profile is to address the role of deprivation: in relation to prevalence of the four main eye conditions; in the development of risk factors for these conditions and whether it has an impact on access to relevant services. The other four CEPs that RNIB is overseeing are addressing similar issues: three from perspective of the role of ethnicity and one other on the role of deprivation.

This section of the profile reviews two main sources of information available on deprivation, namely *Investing for Health* data and the Northern Ireland Multiple Deprivation Measure (NIMDM).

3.2.1 INVESTING FOR HEALTH DATA

Investing for Health is the public health strategy of the Northern Ireland Executive. It contains a framework for action to improve health and well-being and reduce health inequalities which is based on partnership working amongst Departments, public bodies, local communities, voluntary bodies, District Councils and the social partners.

The overarching aims of *Investing for Health* are:

- to improve the health status of all our people and
- to reduce inequalities in health.

Investing for Health outlines 2 goals, 7 objectives and 2 themes.

Goals

1. Longer Healthier Lives
2. Reducing Inequalities

Objectives

1. Poverty
2. Education & Skills
3. Mental Health & Emotional Well Being
4. Healthy Environments
5. Neighbourhood Renewal
6. Accidental Injury
7. Healthier Choices

Themes

1. Working with Communities
2. Partnership Working

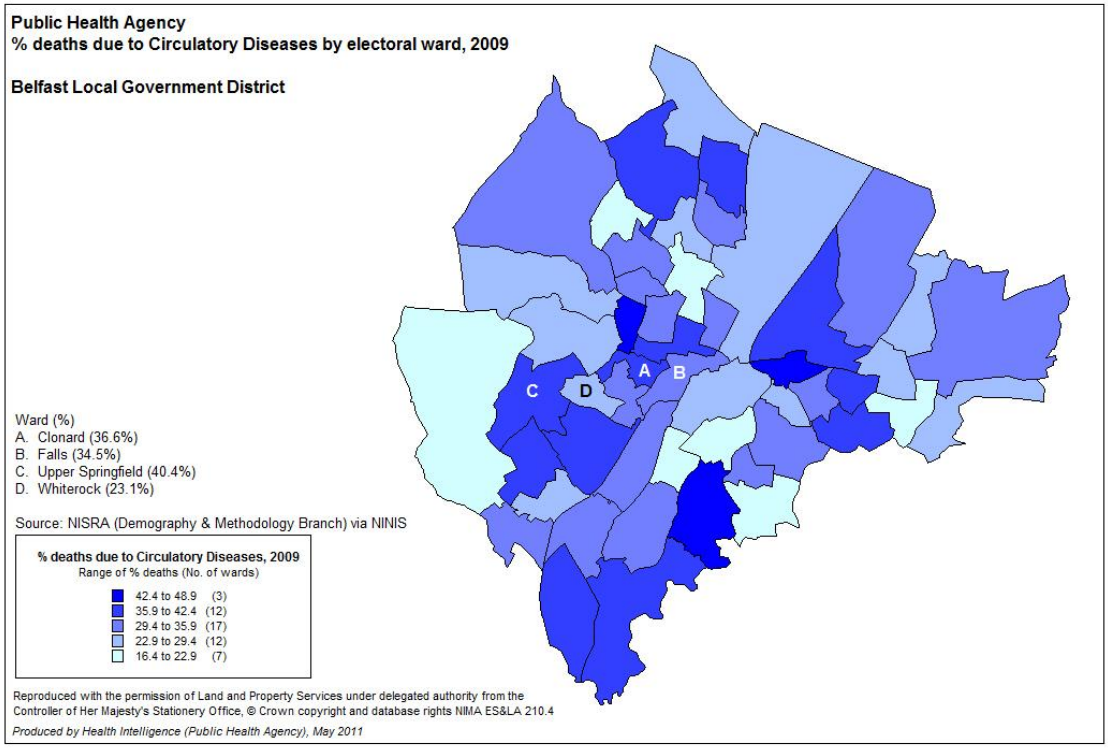


Figure 4: Percentage of Deaths due to Circulatory Disease

Under Investing for Health Goal 1 – Longer Healthier Lives, data is collected on the main causes of death in Northern Ireland. Figures 4, 5 and 6 illustrate the percentage of deaths for each of the 51 electoral wards in Belfast LGD for circulatory diseases, malignant neoplasms and respiratory diseases.

The proportion of deaths attributed to these main categories varies across the four electoral wards of the CEP area. Circulatory diseases are an important cause of death in the Clonard and Upper Springfield wards. Malignant neoplasms are an important cause of death in three of the four wards with the proportion of deaths in Clonard ward being attributed to malignant neoplasms less than for the other wards. The proportion of deaths attributed to respiratory diseases is highest in the Falls ward.

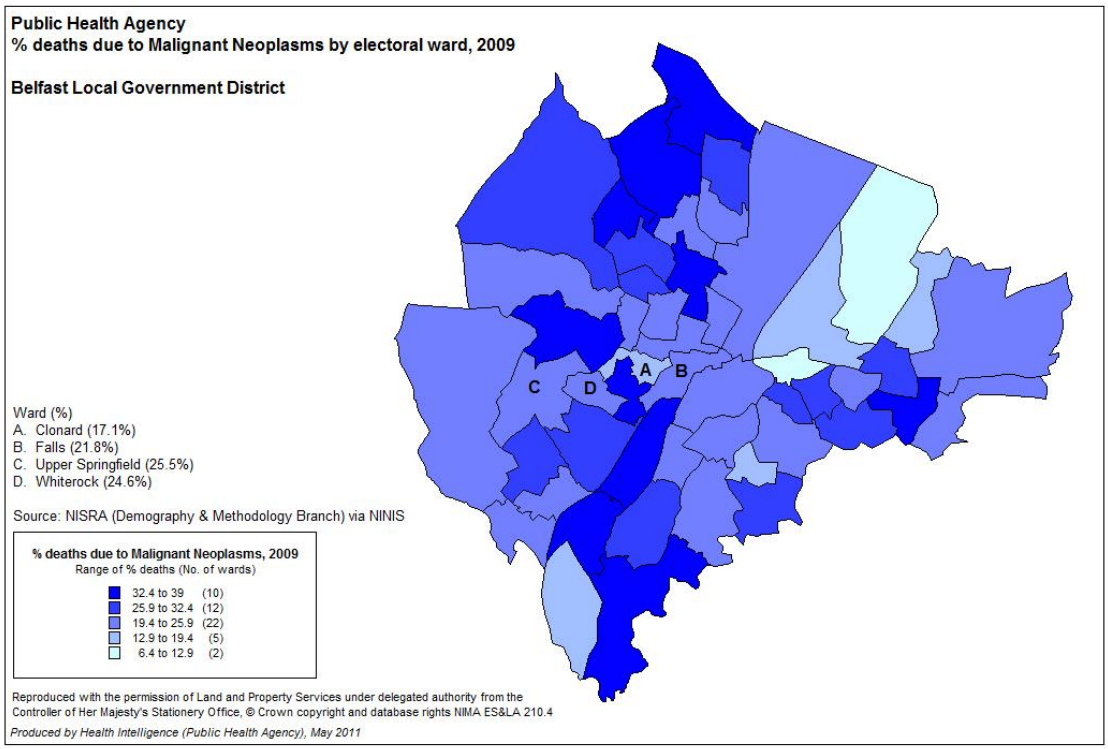


Figure 5: Percentage of Deaths due to Malignant Neoplasms

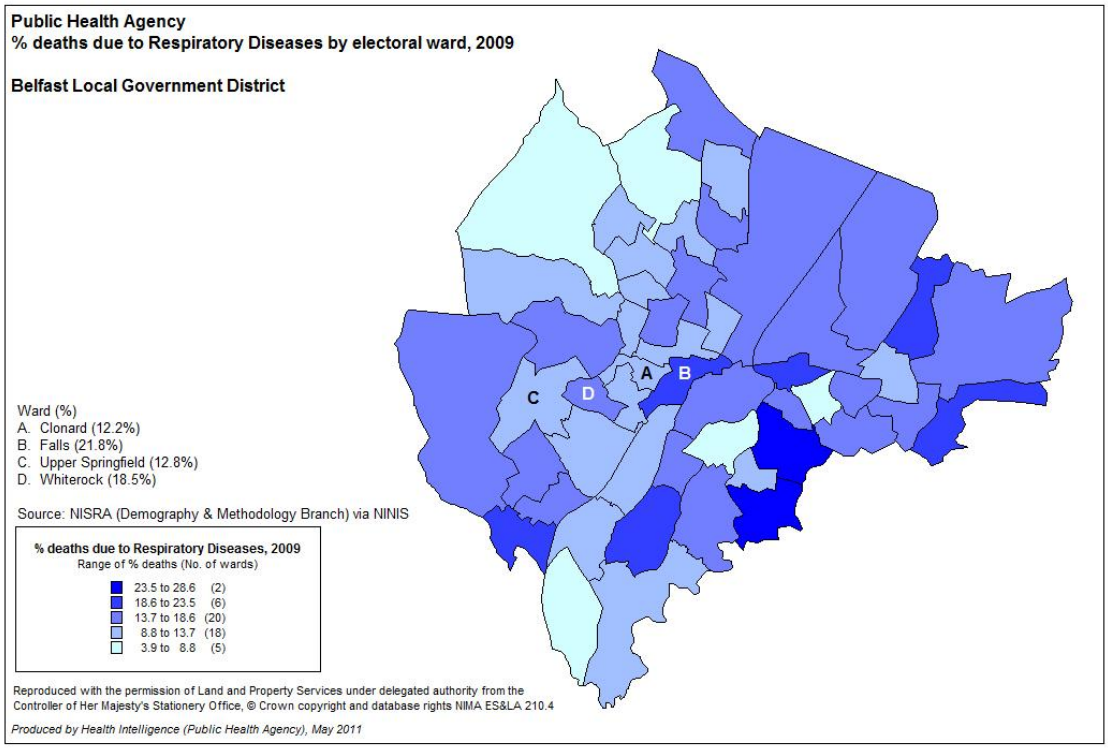


Figure 6: Percentage of Deaths due to Respiratory Diseases

Under Investing for Health Goal 2 – Reducing Inequalities, data is collected on dental registrations for children in Northern Ireland. Figures 7 and 8 illustrate the percentage of childhood dental registrations for each of the 51 electoral wards in Belfast LGD for under 3s and 3 to 5 year olds.

The level of dental registration in the under 3s is disappointing across the CEP area although it does improve somewhat for the 3 to 5 year olds.

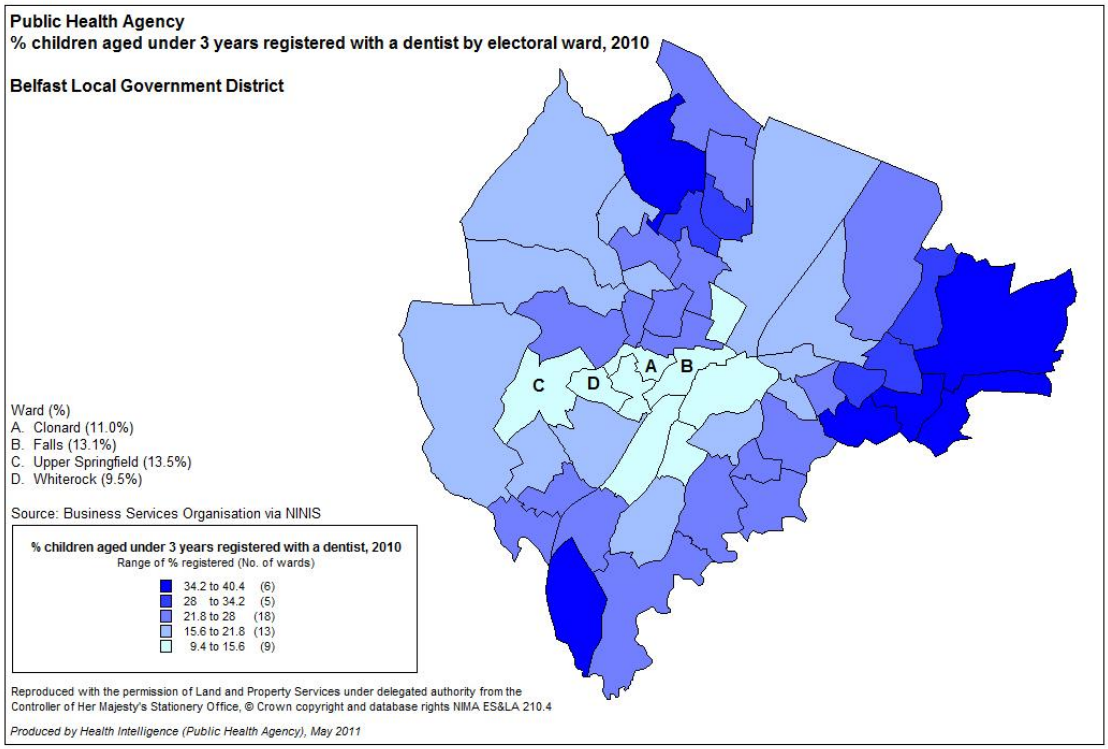


Figure 7: Percentage of Children Aged Under 3 Registered with a Dentist

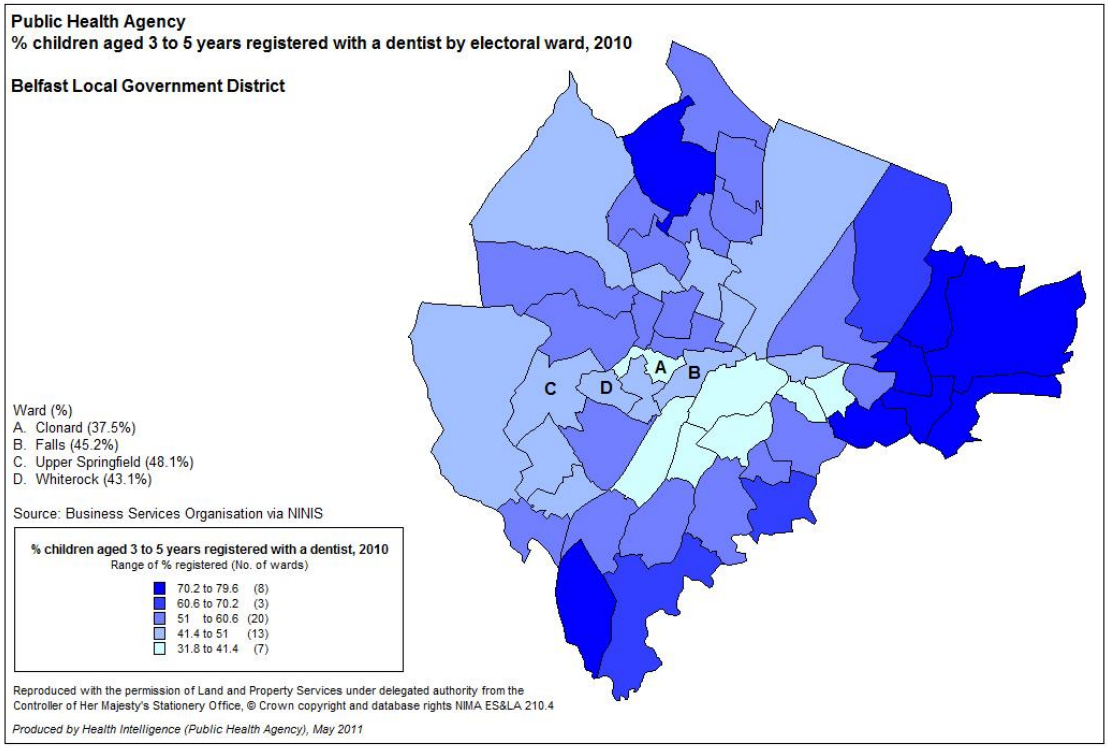


Figure 8: Percentage of Children Aged 3-5 years Registered with a Dentist

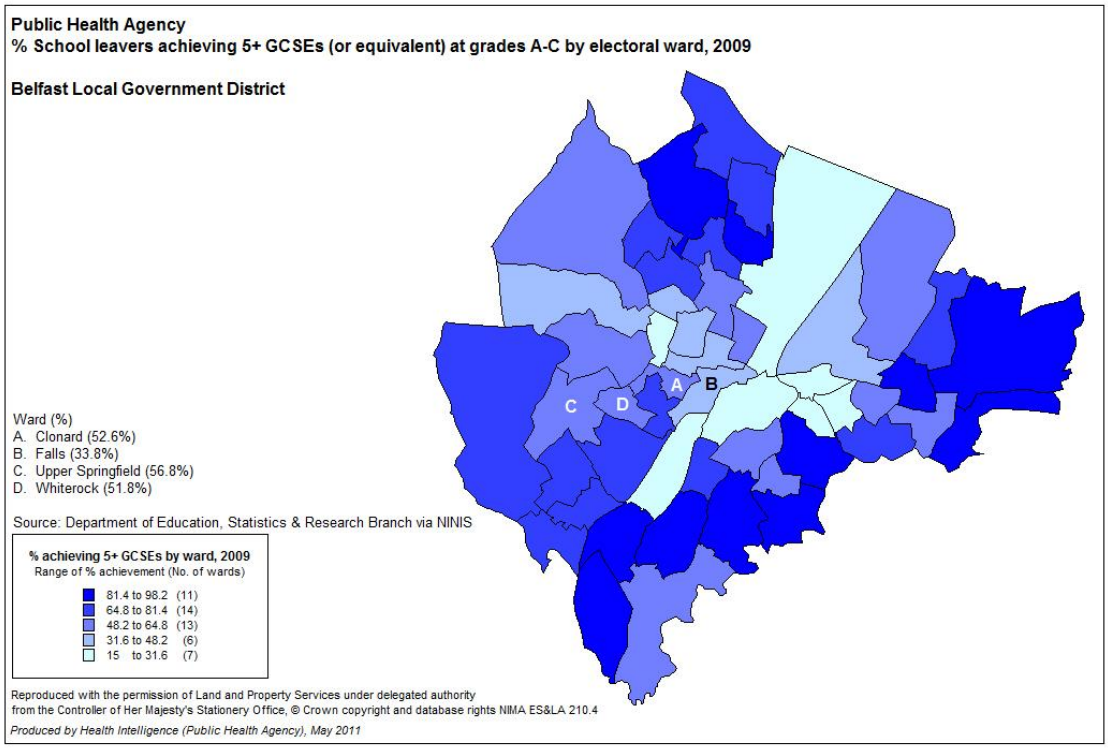


Figure 9: Percentage of School Leavers achieving 5+ GCSEs at grades A-C

Figure 9 on the previous page illustrates academic achievement at GCSE level for the 51 electoral wards of Belfast LGD. For 3 of the 4 wards of the CEP area the percentage of school leavers achieving 5+ GCSEs at grades A-C is in the low to mid 50s. This reflects under achievement compared to other areas of Belfast but the low achievement of 33.8% in Falls ward is particularly concerning.

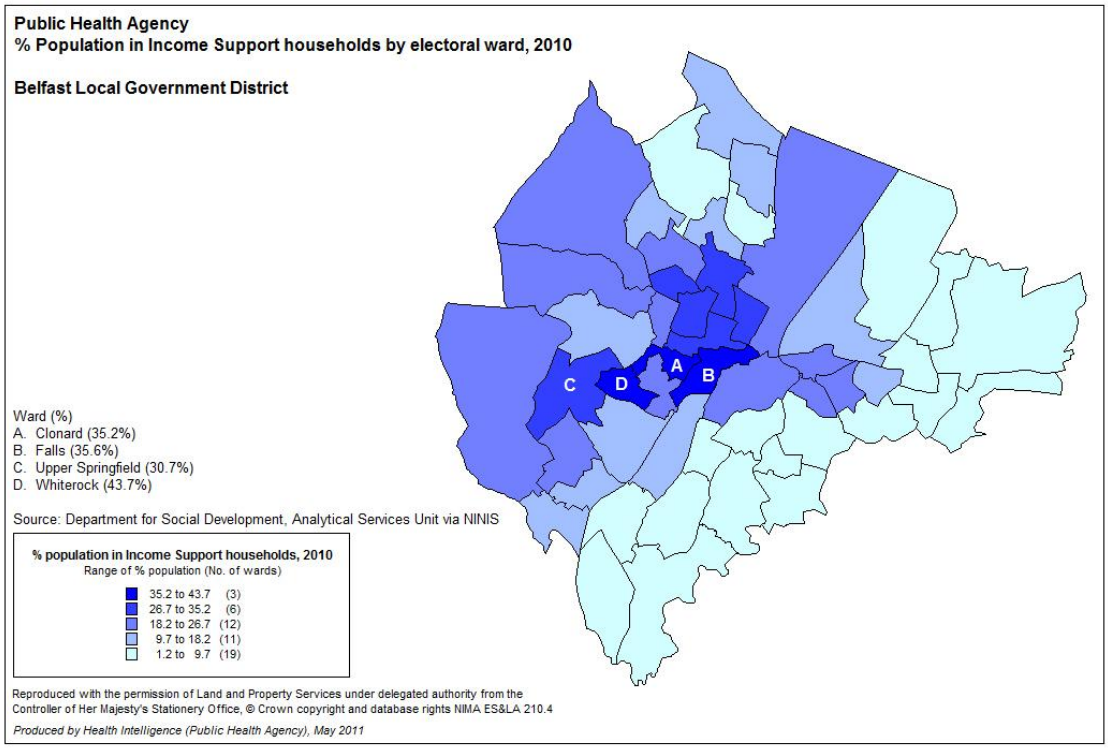


Figure 10: Percentage of Population in Income Support Households

All four wards of the CEP area have high proportions of households in receipt of income support. Three of the wards (Clonard, Falls & Whiterock) have the highest percentage of their resident populations in income support households compared to all 51 electoral wards that make up Belfast LGD.

Figures 11, 12 and 13 depict reported levels of crime by electoral ward for 2009/10 for each of the electoral wards in Belfast LGD.

Falls ward has a high rate of both theft offences and criminal damage. Reported levels of criminal damage is also moderately high for both Clonard and Whiterock wards. No ward within the CEP area has a high rate of domestic burglary.

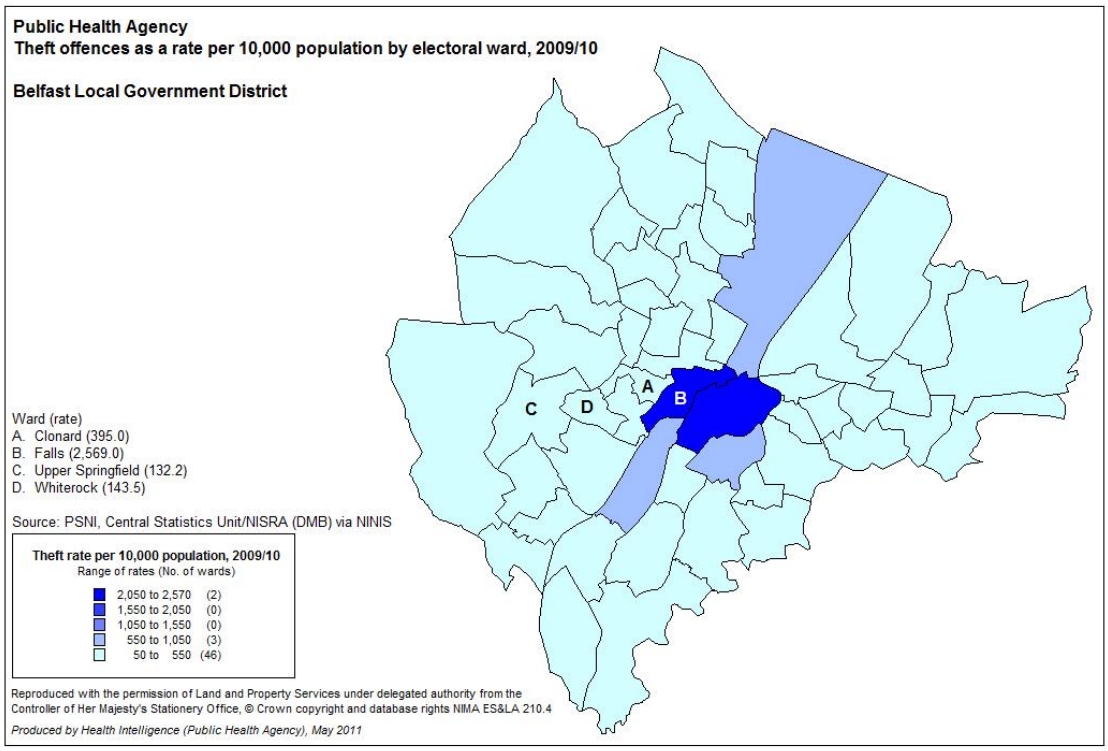


Figure 11: Theft Offences as a Rate per 10,000 Population

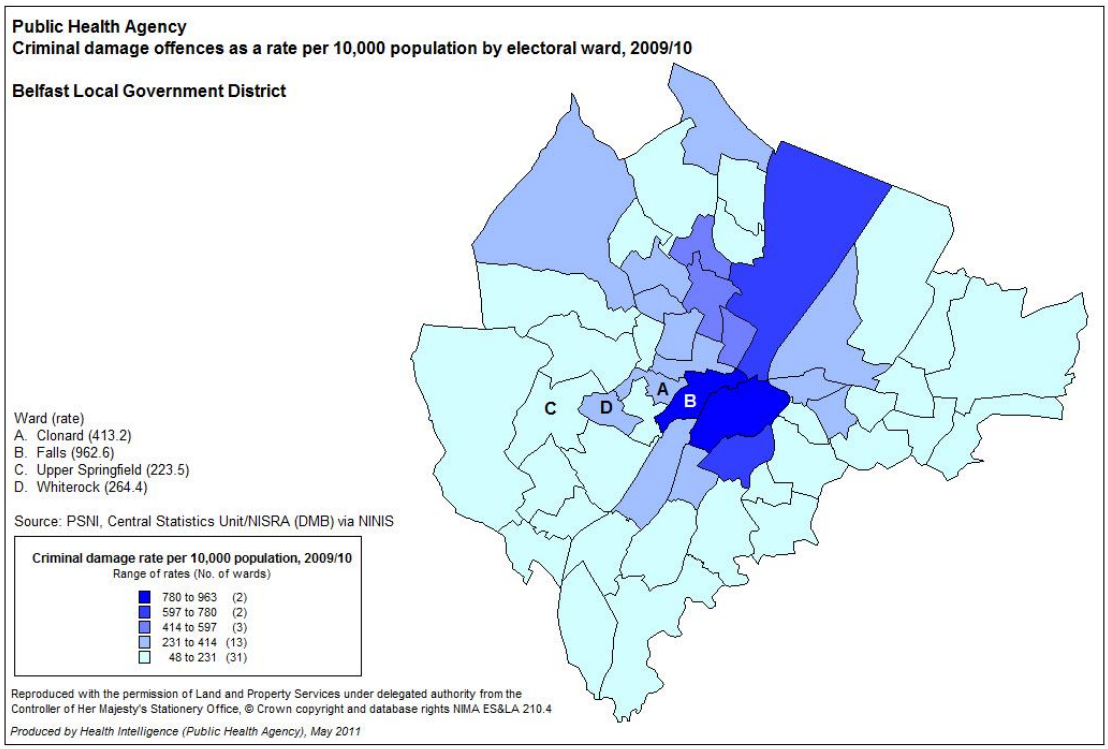


Figure 12: Criminal Damage Offences as a Rate per 10,000 Population

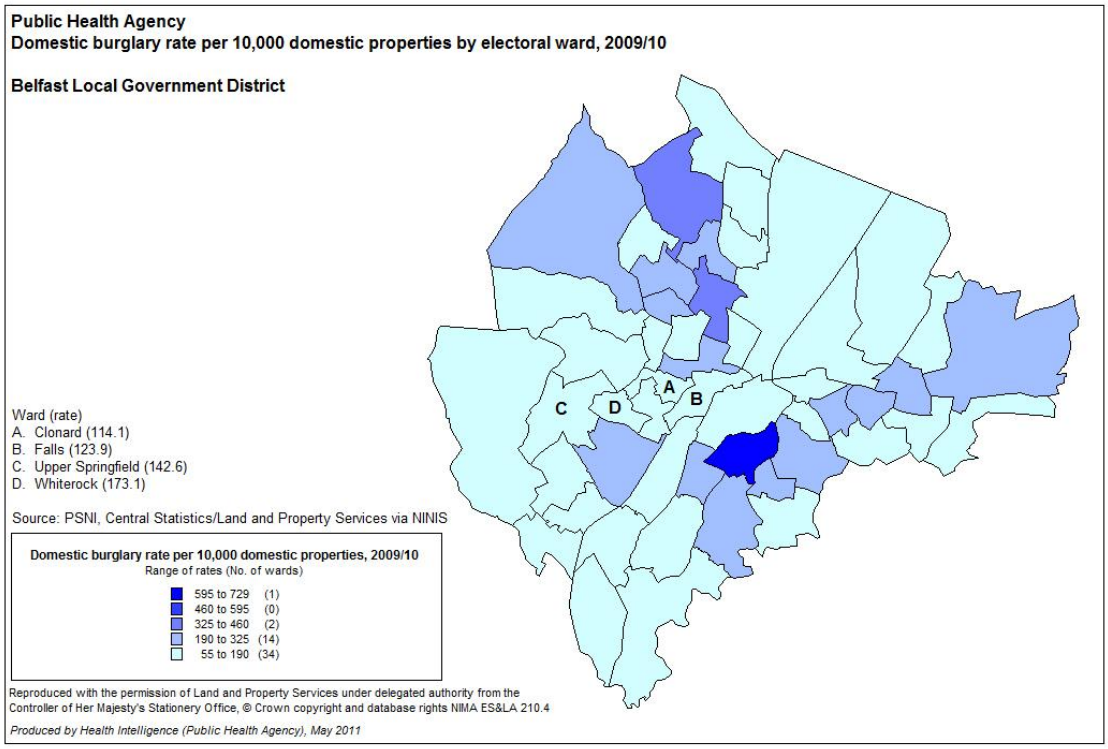


Figure 13: Domestic Burglary Rate per 10,000 Domestic Properties

3.2.2 Northern Ireland Multiple Deprivation Measure

The Northern Ireland Multiple Deprivation Measure 2010 is the official measure of spatial deprivation in Northern Ireland. The NIMDM is produced by the Northern Ireland Statistics & Research Agency (NISRA). At Electoral Ward level NISRA provides an overall NIMDM score and also scores for each of the seven individual domains that contribute to the NIMDM.

The seven individual domains are:

1. Income
2. Employment
3. Health Deprivation and Disability
4. Education, Skills and Training
5. Proximity to Services
6. Living Environment
7. Crime and Disorder

Northern Ireland is divided into 582 Electoral Wards. In addition to the NIMDM and domain scores NISRA also rank each of the Wards from 1 to 582. The ward with a rank of 1 is the most deprived, and the ward with the rank of 582 is the least deprived.

NISRA constructed the NIMDM 2010 by combining the seven transformed domain scores, using the following weights:

1. Income (25%)
2. Employment (25%)
3. Health Deprivation and Disability (15%)
4. Education, Skills and Training (15%)
5. Proximity to Services (10%)
6. Living Environment (5%)
7. Crime and Disorder (5%)

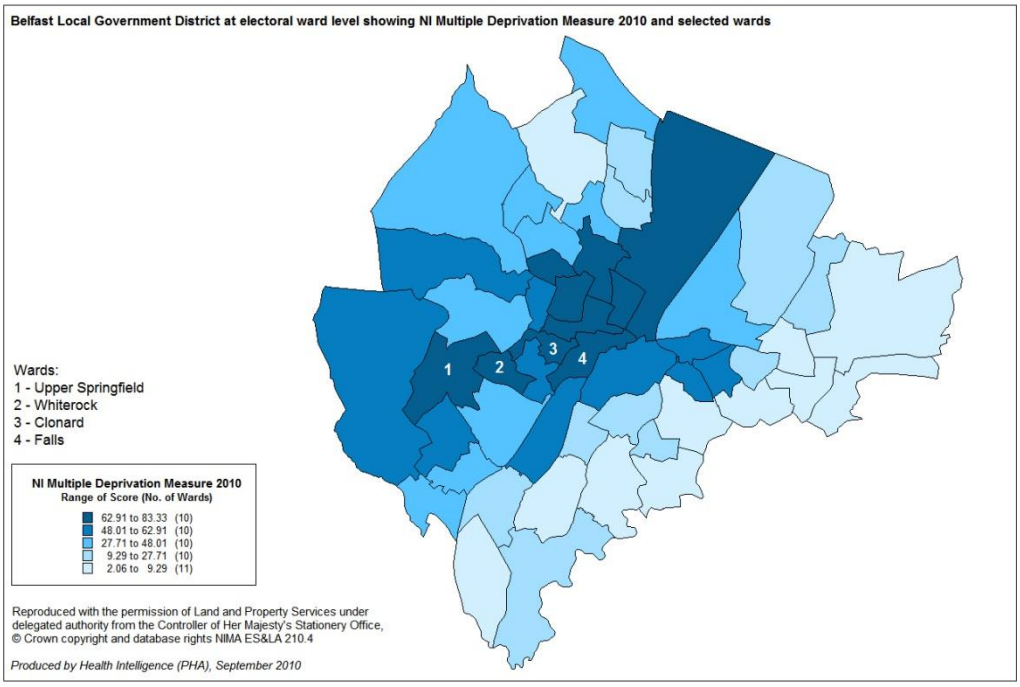
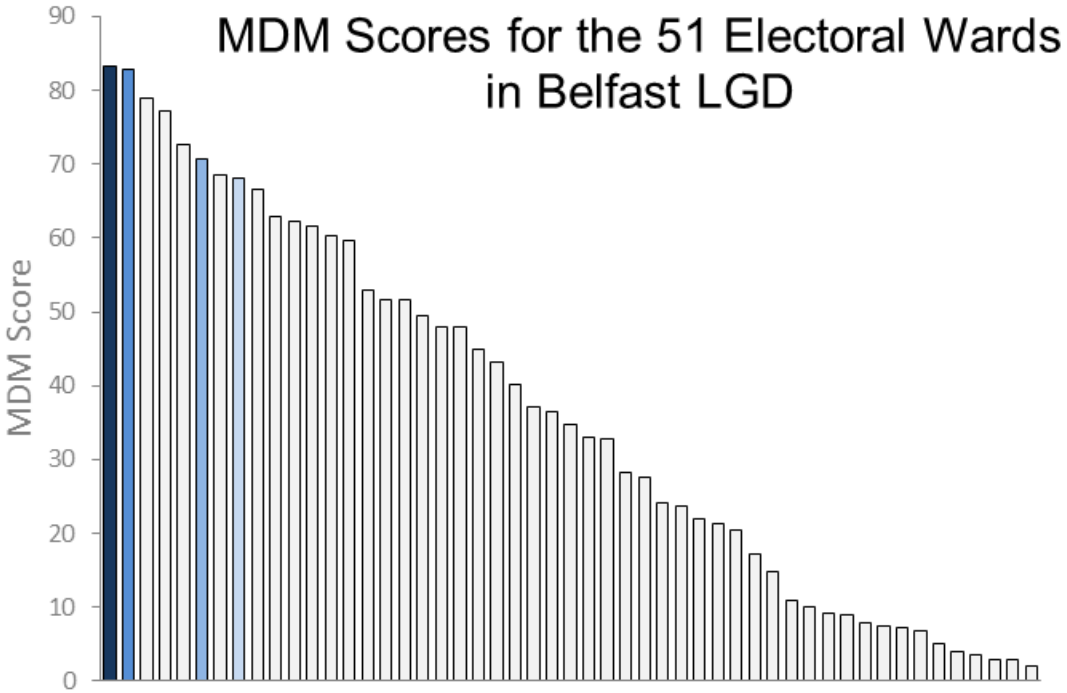


Figure 14: Map of Belfast LGD Showing NIMDM 2010 by Electoral Ward

Each of the four Electoral Wards in the CEP Area: Clonard; Falls; Upper Springfield; and Whiterock are in the top 2% of the most deprived wards in Northern Ireland.

Tables 14 – 17 clearly illustrate that the four wards of the CEP Area score highly on all domains of the multiple deprivation measure with the exception of the domain that covers proximity to services. The relatively low scoring on this domain reflects the geographical location of the CEP Area in urban Belfast in close proximity to primary and secondary care services.

The high scoring for each of the four wards on six of the seven domain measures is further underlined by the ranking of their scores against all 582 electoral wards in Northern Ireland.



Key	Ward	MDM Score	Rank of MDM Score
	Whiterock	83.33	1
	Falls	82.82	2
	Clonard	70.66	7
	Upper Springfield	68.03	11

There are 582 Electoral Wards in Northern Ireland.
Wards are ranked from 1 to 582 with 1 being the most deprived.

Figure 15: MDM Scores for Belfast LGD Wards with CEP Wards Highlighted

Table 14: NIMDM Domain Ranks & Scores for Clonard Ward

NIMDM Domain	Rank	Score
Income	9	65.51
Employment	8	29.78
Health Deprivation and Disability	4	2.54
Education, Skills and Training Deprivation	44	54.01
Proximity to Services	579	0.68
Living Environment	35	48.92
Crime and Disorder	22	67.88

Table 15: NIMDM Domain Ranks & Scores for Falls Ward

NIMDM Domain	Rank	Score
Income	4	70.51
Employment	3	32.65
Health Deprivation and Disability	1	2.96
Education, Skills and Training Deprivation	4	79.52
Proximity to Services	577	0.7
Living Environment	39	48.23
Crime and Disorder	6	87.41

Table 16: NIMDM Domain Ranks & Scores for Upper Springfield Ward

NIMDM Domain	Rank	Score
Income	16	61.57
Employment	9	29.71
Health Deprivation and Disability	6	2.35
Education, Skills and Training Deprivation	15	70.20
Proximity to Services	529	1.13
Living Environment	107	32.80
Crime and Disorder	98	39.04

Table 17: NIMDM Domain Ranks & Scores for Whiterock Ward

NIMDM Domain	Rank	Score
Income	1	76.07
Employment	1	37.78
Health Deprivation and Disability	2	2.95
Education, Skills and Training Deprivation	8	76.66
Proximity to Services	554	0.93
Living Environment	33	49.72
Crime and Disorder	41	54.27

Source for Tables 14-17:
NISRA Dataset: Northern Ireland Multiple Deprivation Measure 2010: Electoral Ward Summary Measures

4. Risk Factors

4.1 Age-related Macular Degeneration

Table 18: Risk Factors for the Development of AMD[3,4]

Risk Factor	Comment
Age	Can occasionally develop in people who are in their forties and fifties. Most often seen in people over the age of 65. Age is the most important risk factor for developing AMD.
Gender	In absolute terms more women than man have AMD but this may just reflect the longer life expectancy of women.
Ethnicity	White populations are more susceptible to AMD, followed closely by Chinese people.
Genes	There is a substantial genetic component to AMD with estimates ranging from 25-75%.
* Smoking	Smoking greatly increases the risk of developing AMD. Studies also show that stopping smoking can reduce the risk of developing AMD.
* Alcohol intake	Heavy drinking has been linked with developing early AMD.
* Diet	A number of studies have looked at diet as a risk factor for someone developing AMD. At the moment there isn't much agreement on how much of a risk factor diet is. There is some evidence that vitamins A, C and E and zinc may help to slow the progression of AMD in people who already have the condition.
* Sunlight	Some studies have linked exposure to high levels of sunlight to the risk of developing AMD. Wearing sunglasses to protect the eyes from the UV light in sunlight is recommended.
* Traditional risk factors for cardiovascular disease	AMD has been linked to hypertension. Some studies have reported the protective effect of HDL (good) cholesterol on AMD development.
	* modifiable risk factors

4.2 CATARACT

Table 19: Risk Factors for Development of Cataract[3,5]

Risk Factor	Comment
Age	Most people over the age of 65 have some changes in their lens and most will develop a cataract in time.
* Diabetes Mellitus	Evidence from a large epidemiological sample.
* Hypertension	Evidence from a large epidemiological sample.
* Medication	For example steroids
Eye Trauma	Including eye surgery for other eye conditions
Gender	Some reports suggest women are more likely to develop cataracts however this may reflect inequalities in access to treatments rather than a patho-physiological process.
* Smoking	Suggested role in cataract development. Further research required.
* Sunlight	Suggested role in cataract development. Further research required.
* Diet	Suggested role in cataract development. Further research required.
	* modifiable risk factors

4.3 DIABETIC RETINOPATHY

Table 20: Risk Factors for Developing Diabetic Retinopathy[3,6]

Risk Factor	Comment
Duration of disease (diabetes)	A major risk for developing diabetic retinopathy is the length of time the patient has had diabetes with the risk increasing with greater duration of diabetes.
Age	Age effects progression of diabetic retinopathy.
Ethnicity	Diabetic retinopathy is more common in South Asian populations in comparison to Caucasian populations.
* Blood glucose control	Good diabetic control significantly lowers the risk of diabetic retinopathy.
* Blood pressure control	Good control reduces the risk of developing retinopathy or helps to stop it from getting worse.
* Cholesterol control	Good control reduces the risk of developing retinopathy or helps to stop it from getting worse.
* Smoking	Nerve damage, kidney and cardiovascular disease are more likely in smokers with diabetes. Smoking increases the blood pressure and raises blood sugar level thereby worsening the diabetic control of the patient.
* Diet	Keeping fit and maintaining a healthy weight reduce the risk of developing diabetes and the risk of developing retinopathy in those who already have diabetes.
	* modifiable risk factors

4.4 GLAUCOMA

Table 21: Risk Factors for the Development of Primary Open Angle Glaucoma[3,7]

Risk Factor	Comment
Age	POAG becomes much more common with increasing age. It is uncommon below the age of 40 but this type of glaucoma effects one per cent of people aged over 40. About five per cent of people over the age of 65 have POAG.
Ethnicity	POAG is most common in people of African origin. It is also likely to develop at an earlier age and be more severe. Asian populations (including South Asia) are another high risk group.
Genes	Family members of those with a history of chronic glaucoma are at higher risk of developing glaucoma.
Short sight	People who are very short sighted are at higher risk of developing glaucoma.
* Diabetes mellitus	People with diabetes have a greater risk of developing POAG.
* Ocular Hypertension	Along with age increased intra-ocular pressure is the most important risk factor for developing POAG.
	* modifiable risk factors

5. Eye Health Services

5.1 Ophthalmic Practices

There are 50 Ophthalmic Practices within Belfast Local Government District area. A number of these are located in Belfast city centre which is a short journey from the CEP Area by public transport. Several others are located in neighbouring electoral wards.

Within the CEP Area itself there are four ophthalmic practices as detailed in table 22.

Table 22: Ophthalmic Services in CEP Area

	Falls Ward	Upper Springfield Ward	Whiterock Ward	Clonard Ward
Practices	3	1	0	0
Practitioners	20	2	0	0

Table 23: List of Ophthalmic Practices in CEP Area

Ward	Practice Name	Practice Address
Falls	Vision Express	Unit 27-28 Castle Court Centre Belfast BT1 1DD
Falls	Eye-Care	6 North St Belfast BT1 1LA
Falls	Conway Opticians	32 Castle St Belfast BT1 1HB
Upper Springfield	Rock Opticians	658 Springfield Trust 658 Springfield Rd Belfast BT12 7FP

5.2 GP PRACTICES

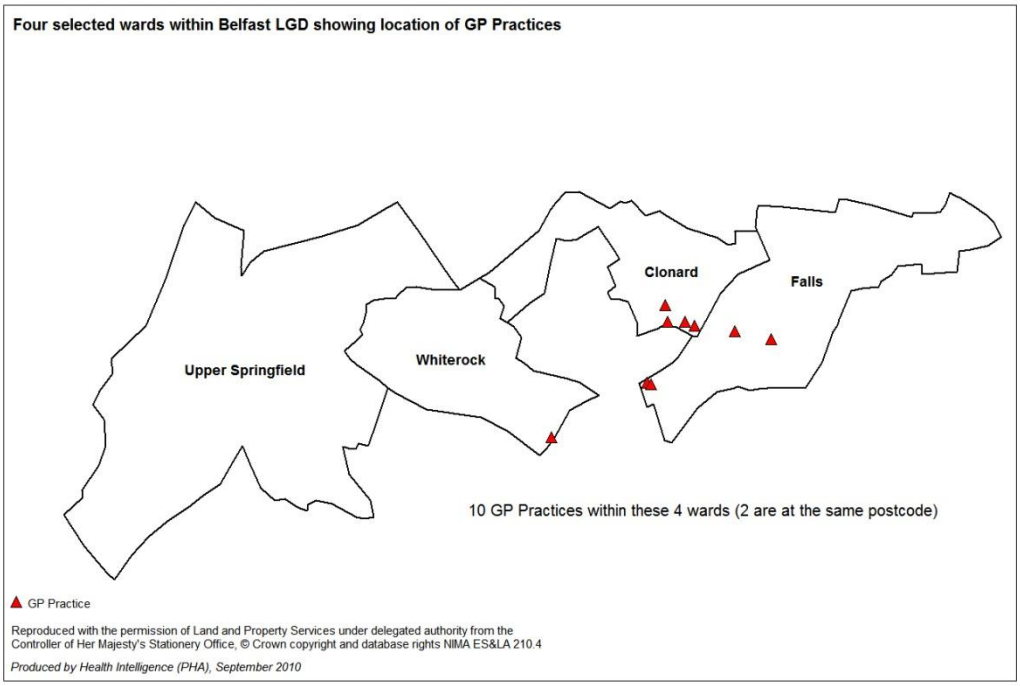


Figure 16: Location of GP Practices in CEP Area

Not all patients residing within the CEP Area will be registered with one of the 10 GP Practices located within the four wards. Some residents will be registered with GP Practices in neighbouring wards or further afield.

Additionally, a significant number of patients are registered with these Practices who do not reside in the CEP area. The mid-year estimated population for the CEP Area in 2008 was 19,970 while the combined registered practice list size for the 10 GP Practices in January 2010 was 52,978[11]. This demonstrates that the GP Practices provide services to patients from beyond the electoral ward in which the Practice is located. Indeed less than half of their registered patients live in the CEP Area.

It is therefore important to be aware that the location of a GP Practice within the CEP Area is only a crude proxy for GP services offered to the CEP Area residents.

[11] Payment Calculation and Analysis System (PCAS) as at 31 March 2010.

Table 24: GP Practices within the CEP Area

Practice Code	Practice Name	Practice Address
Z00053	Dr. COLGAN	463 FALLS ROAD BELFAST BT12 6DD
Z00064	Dr. DONAGHY & PARTNERS	DUNVILLE HEALTH CENTRE 309 GROSVENOR ROAD BELFAST BT12 4LP
Z00075	Dr. MCCLOSKEY & PARTNERS	GROSVENOR ROAD SURGERY 216 GROSVENOR ROAD BELFAST BT12 5LT
Z00079	Dr. BREADY & PARTNERS	70 SPRINGFIELD ROAD BELFAST BT12 7AH
Z00081	Dr. MCHUGH & PARTNERS	46 SPRINGFIELD ROAD BELFAST BT12 7AH
Z00084	Dr. SALTERS & PARTNER	186 FALLS ROAD BELFAST BT12 6AG
Z00094	Dr. YOONG & PARTNERS	115 FALLS ROAD BELFAST BT12 6AA
Z00111	Dr. MCKENNA	2 THAMES STREET BELFAST BT12 6AP
Z00115	Dr. SHEARER	26 SPRINGFIELD ROAD BELFAST BT12 7AG
Z00116	Dr. DORAN & PARTNERS	CROCUS STREET SURGERY 1 CROCUS STREET BELFAST BT12 7AP

Figures 17 and 18[12] illustrate the growing rate of GP referrals to secondary care ophthalmology services during the past 3 years and the consequent increase in expenditure. The pattern is consistent across the North and West Belfast Locality, the Belfast Local Commissioning Group (LCG) and Northern Ireland.

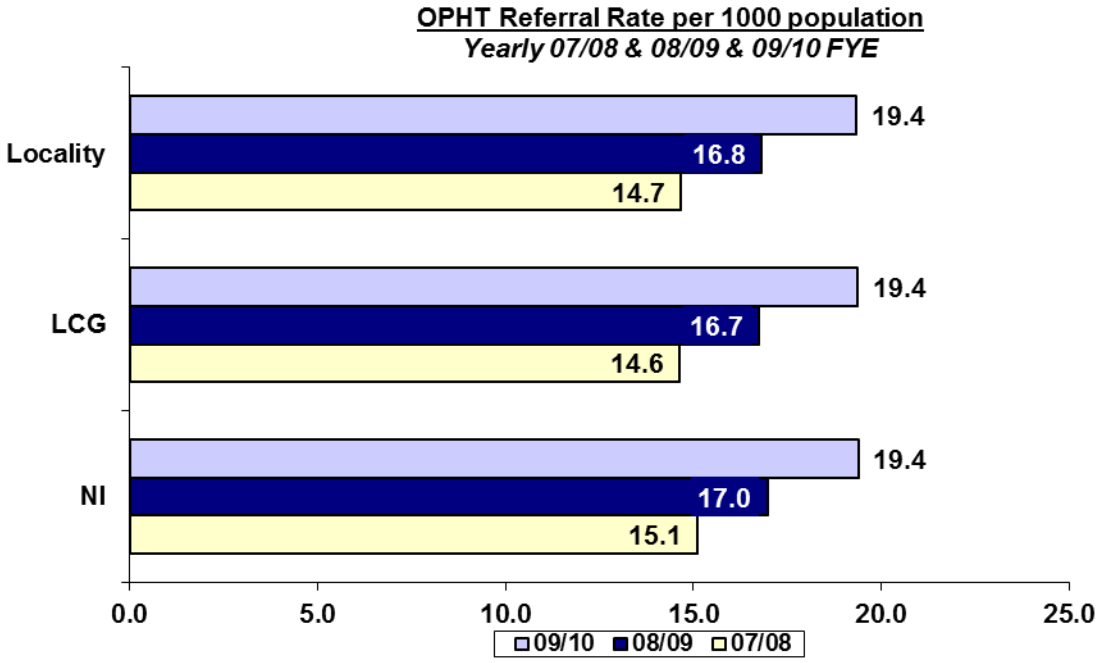


Figure 17: GP Ophthalmology Referral Rate per 1000 population

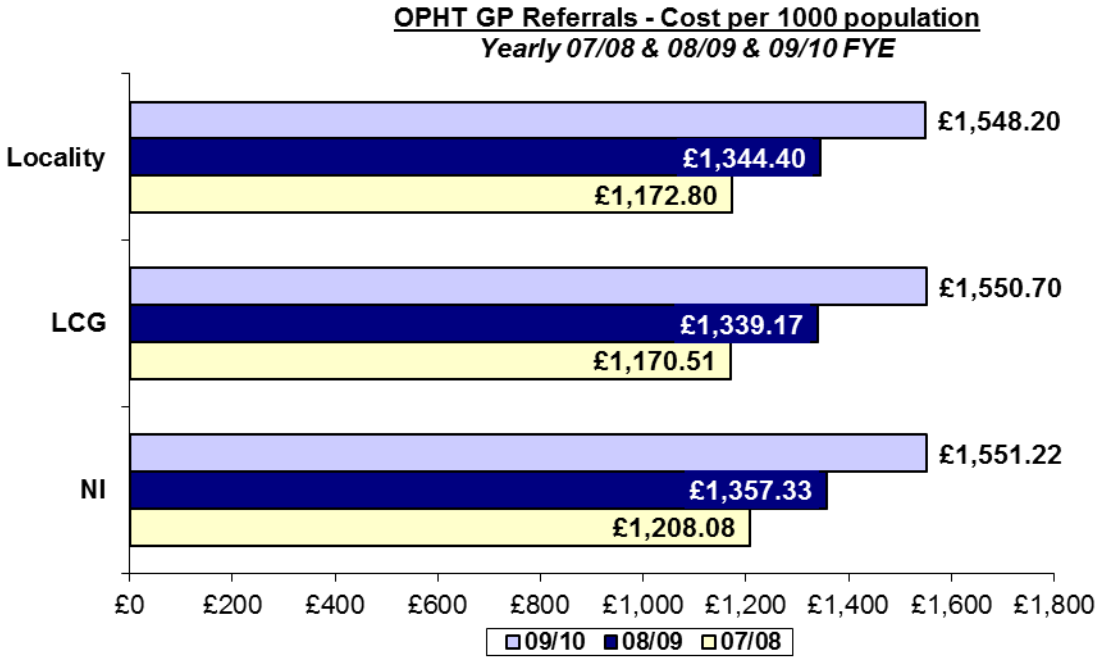


Figure 18: GP Ophthalmology Referrals – Cost per 1000 population

[12] Ophthalmology Compass Report

5.3 SECONDARY CARE

Following the Review of Public Administration there are five acute provider Health & Social Care Trusts in Northern Ireland along with the one other which is the NI Ambulance Service. Ophthalmology services are provided by two trusts: Belfast Health & Social Care Trust and Western Health & Social Care Trust.

Belfast Health & Social Care Trust is the local provider Trust for the CEP Area and is also the largest of the provider Trusts in Northern Ireland and as such offers a number of regional services.

The following description of secondary care services for ophthalmology, both current and planned, comes from the Belfast HSC's Equality Impact Assessment document on its proposed changes to ophthalmology services[13].

5.3.1 CURRENT MODEL

Ophthalmology inpatient and day-case services for both local and regional users are currently provided at the Royal Hospitals and the Mater Hospital. Optometric and orthoptic services are also provided. Ophthalmology currently operates a "hub and spoke" model where the central base provides a fraction of services, whilst outreach services right across the region maintain local access for patients.

The Ophthalmology service in Belfast has located its macular service, associated specialist support and the majority of its cataract day surgery at the Mater Hospital. The Royal Hospitals provides the inpatient service and day-case service as well as providing an outreach service to schools.

Ophthalmology teams from the Royal Hospitals and Mater Hospital contribute to the regional outpatient services provided in the Northern, Southern and South Eastern Health and Social Care Trusts geographic areas. Some surgery, primarily cataract surgery is provided to Southern and South Eastern Health and Social Care Trusts in their local hospitals. Other procedures and surgical interventions for these Trusts are undertaken if required at either the Royal Hospitals or Mater Hospital.

Patients access their care in one or more of the following ways:

- As an inpatient: an admission to hospital which includes an overnight stay (requiring specialised equipment and thereby limiting the location); or patients who have been admitted as an emergency via the Regional Acute Eye Service, Emergency Department or as a tertiary referral from another hospital
- As a day case: surgical treatment which is carried out in a single day, without the patient having to stay in hospital overnight
- As an outpatient: care provided on an appointment basis without the need to be admitted to or stay in hospital.

[13] Excellence and Choice: Equality Impact Assessment Document – Ophthalmology Services, 2010, Belfast Health & Social Care Trust.

The current service locations offer the following:

Royal Hospital

Ophthalmology emergency, outpatient, inpatient and day-case services are provided at the Royal Hospital as well as a wide range of clinical support services. Services provided include:

Adult inpatients and day cases - the majority of specialist ophthalmic surgery and all emergency ophthalmic care is undertaken at the Royal.

Regional Acute Eye Service or 'Eye Casualty' – This service provides a regional emergency triage, assessment and treatment service for patients presenting with ophthalmic conditions that cannot be managed by their General Medical Practitioner or General Ophthalmic Services (GOS) Optometrist. Eye casualty services are provided by a team of medical and specialist nursing staff. Outside of the limited opening hours, the service is provided via main accident and emergency services.

Minor Procedures – The Ophthalmic Day Unit provides ambulatory day care facilities for patients who are attending for minor ophthalmic procedures. These procedures are carried out in a minor operation room in the unit.

Contact Lens and Low Vision Clinics – This is an outpatient service for patients who require contact lens fitting for medical reasons. Largely delivered by optometry, medical and nursing staff, patients attend for assessment, fitting and on-going management of their contact lens. The low vision clinic provides assessment, advice and the provision of visual aids and appliances for patients with long-term visual impairment. A large proportion of low vision services are delivered as outreach services.

Artificial Eye Clinic – This is an outpatient service for patients following surgery to remove one or both eyes. Patients are assessed and fitted with artificial eyes and receive on-going advice and support.

Visual Electrophysiology - This is a regional diagnostic outpatient service provided by medical physics staff.

Visual Fields – This is an assessment of peripheral vision and is required for the diagnosis and long-term follow up of disease progression in glaucoma and neurological conditions. It is delivered by technical staff and specialist nurses.

Fluorescein and Photography Service – This is a diagnostic service where patient have images taken of the eye in order to assist in patient diagnosis for a range of ophthalmic disorders. Fluorescein angiography is an invasive procedure requiring the injection of intravenous fluorescein.

Refraction Services – This is an outpatient service, predominantly for children, provided in conjunction with orthoptics as both a hub and spoke service.

Orthoptics – This is an outpatient service for patients with squints, reduced vision and diplopia (double vision). The service includes the assessment and treatment of defects of binocular vision by nonsurgical measures.

Mater Hospital

Cataract Day Surgery – the majority of cataract surgery performed in the Belfast Trust is undertaken at the Mater Hospital in the modern day procedure unit.

Macular Service – this unit provides assessment and treatment for Wet Age-related Macular Degeneration (Wet AMD). The current average monthly demand for this service is over 80 new patients per month.

Minor procedures - these are also carried out at the Mater Hospital as part of the outpatient service. If a procedure is required it is carried out during the outpatient visit rather than the patient having to return to the hospital for another appointment.

Orthoptics – This is an outpatient service for patients with squints, reduced vision and diplopia (double vision). The service includes the assessment and treatment of defects of binocular vision by nonsurgical measures.

Belfast City Hospital

There are two Ophthalmology outpatient clinics provided at the Belfast City Hospital site supported by a small specialist nursing team.

5.3.2 Future Model Proposed by BHSCT

The patient pathway for Ophthalmology in the future will be delivered using a hub and spoke model. The hub will be the specialist centre where inpatients, day cases, outpatients and support services will be delivered. The spoke(s) will be the locations where general, stand-alone Ophthalmology clinics can be delivered. This model is outlined in table 25.

Table 25: Proposed Model for Ophthalmology Services

Service	Current Location	Proposed Location *
Day cases	Royal Hospitals Mater Hospital	Mater Hospital
Inpatients	Royal Hospitals	Mater Hospital
Outpatients including clinical support services	Royal Hospitals Belfast City Hospital Mater Hospital	Mater Hospital The Ophthalmology Service is exploring the possibility of extending local access by locating some outpatient services in the Wellbeing and Treatment Centres** in Belfast.
Regional Acute Eye Service	Royal Hospitals	It is proposed that the Regional Acute Eye Service will be reviewed as part of proposals to modernise the service.
Support Services – Optometry/Orthopics	Royal Hospitals, Mater Hospital and Community Clinics (in conjunction with Optometry)	Mater Hospital and community clinics with paediatric services remaining at Royal Hospitals.

* Paediatric ophthalmology services will continue to be provided in the EENT building at the Royal Hospitals until space is available in Royal Belfast Hospital for Sick Children.

** Wellbeing & Treatment Centres are located in centres across Belfast.

6. SMOKING CESSATION SERVICES

Smoking is a recognised risk factor for both age-related macular degeneration and for diabetic retinopathy. It is also suggested as a possible risk factor cataract development.

Smoking cessation services are mapped in figures 19 and 20. They illustrate that the CEP area is well covered by specialised smoking cessation services. Additionally residents of the CEP area may receive opportunistic smoking cessation advice from their own GP.

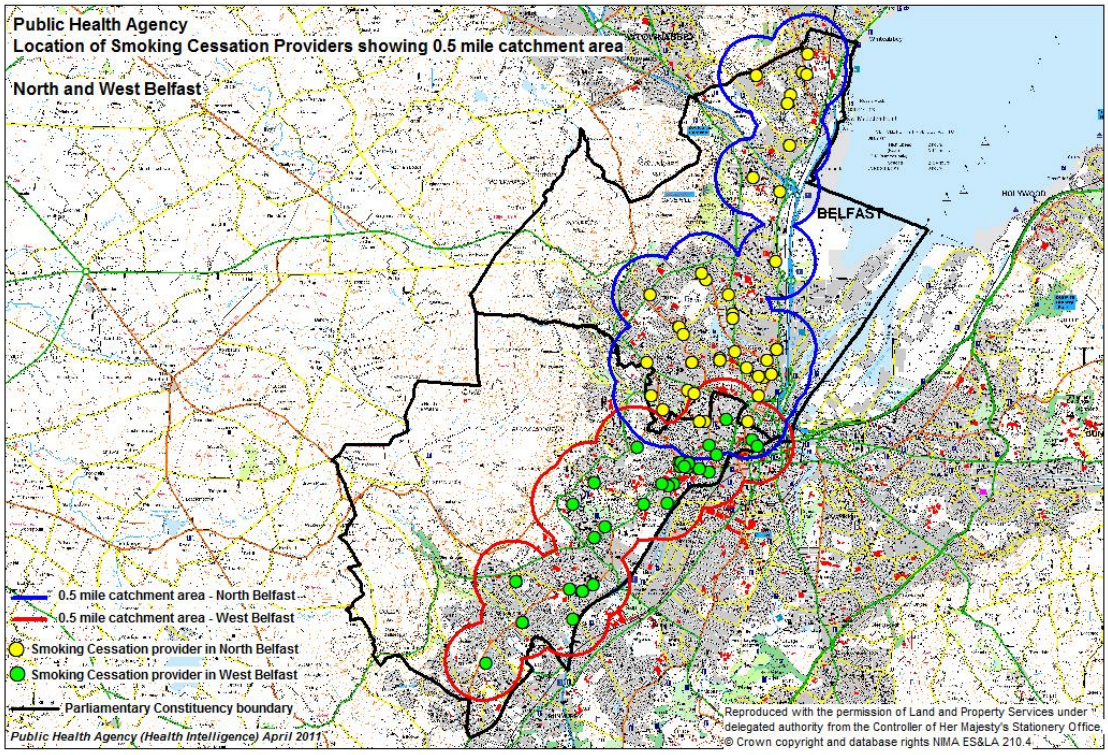


Figure 19: Location of Smoking Cessation Providers showing 0.5 mile catchment area

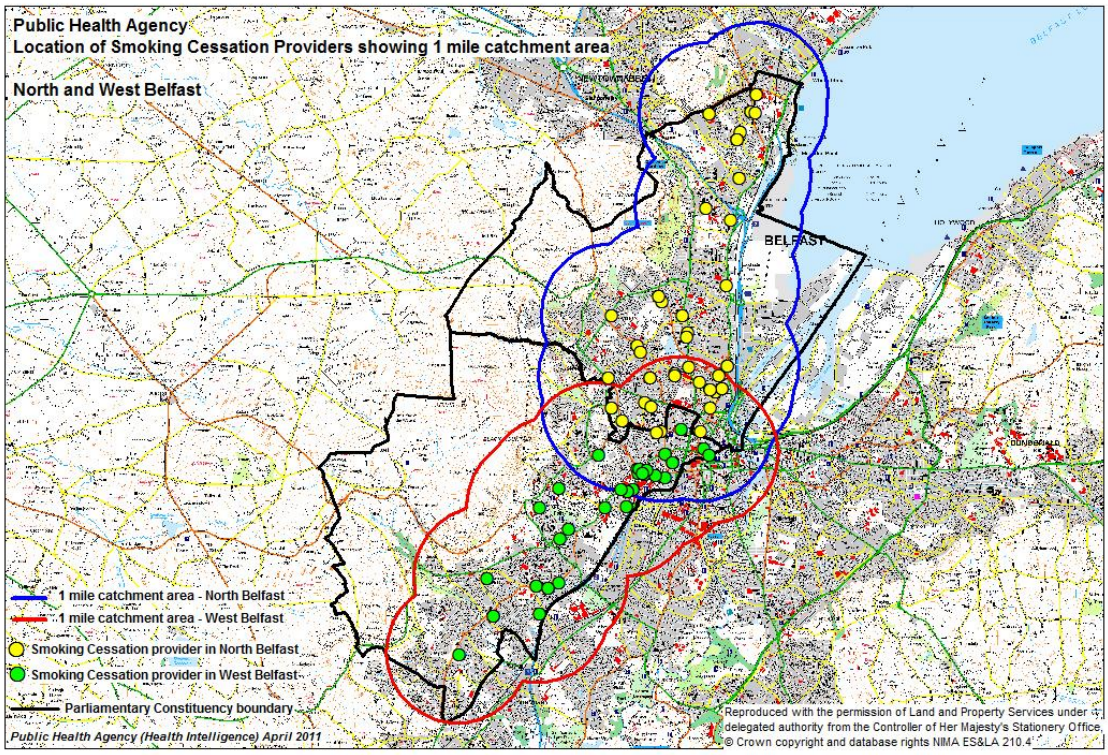


Figure 20: Location of Smoking Cessation Providers showing 1 mile catchment area

6.1 ELITE System

Ward data was not recorded on the ELITE system for 13% of individuals' (3206/23383) setting a quit date in 2009/10 year. Of this 3206, 1003 individuals attended a smoking cessation service within the Belfast Health and Social Services Trust.

The data in table 26 has been extracted from the available 20177 cases for which ward information is available.

Table 26: Smoking cessation information for Wards in CEP Area

	Clonard n(%)	Falls n(%)	Upper Springfield n(%)	Whiterock n(%)
Number setting quit date	133	151	175	209
Gender				
F	72 (54.5%)*	98 (64.9%)	115 (65.7%)	117 (56%)
M	60 (45.5%)	53 (53.1%)	60 (34.3%)	92 (44%)
Age				
Under 18	5 (3.8%)*	4 (2.6%)	9 (5.2%)*	9 (4.3%)
18-34	57 (43.5%)	61 (40.4%)	48 (27.6%)	65 (31.1%)
35-44	37 (28.2%)	42 (27.8%)	50 (28.7%)	59 (28.2%)
45-59	26 (19.8%)	25 (16.6%)	54 (31.0%)	52 (24.9%)
60+	6 (4.6%)	19 (12.6%)	13 (7.5%)	24 (11.5%)
4 Week quit rate				
Yes	51 (44.7%)	59 (49.2%)	121 (77.6%)	143 (72.6%)
No	63(55.3%)	61 (50.8%)	35 (22.4%)	54 (27.4%)
Fall out**	19	31	19	12
Cessation service setting				
Community clinic	2(1.5%)	-	-	-
GP	13(9.8%)	18(11.9%)	21(12%)	15(7.2%)
Hospital	1(0.8%)	-	2(1.1%)	2(1.0%
Other	11 (8.3%)	19(12.6%)	12 (6.9%)	19 (9.1%)
Pharmacist	106 (79.7%)	114 (75.5%)	140 (80%)	173 (82.8%)

* one individual in Clonard did not have gender recorded, 2 individuals in Clonard and one in Upper Springfield did not have age recorded.

** fall out is the number of people who were not contactable 4 weeks after initial quit date

7. ESTIMATION OF EYE HEALTH NEEDS

7.1 DATA SOURCES

In order to quantify eye health needs for the CEP area data sources in both primary and secondary care were interrogated.

Primary care sources included data from the Quality and Outcomes Framework and from the Diabetic Retinopathy Screening Programme Database. Additionally the Business Services Organisation provided information on activity levels for the four ophthalmic practices in the CEP area.

Secondary care sources include: the RNIB client database; data extracted from the regional data warehouse; a regional audit conducted in November 2010; and data from the Wet AMD service.

Estimates of eye disease were also calculated using the National Eye Health Epidemiological Model (NEHEM)[14]. However as the model requires the input of detailed age bands it was not possible to calculate estimates for the CEP area. Detailed age bands are available from NISRA at Local Government District level and so mid-year estimates for 2010 for Belfast Local Government District were used as inputs to the model. This has the advantage of providing estimates of numbers of cases based on relatively local age and ethnic mix but has the disadvantage that the estimates do not recognise that the CEP area has a relatively young population in comparison to the population of Belfast LGD.

7.1.1 QUALITY AND OUTCOMES FRAMEWORK

The Quality and Outcomes Framework (QOF) is a system to remunerate general practices for providing good quality care to their patients, and to help fund work to further improve the quality of health care delivered. It is a fundamental part of the General Medical Services (GMS) Contract, introduced on 1st April 2004. The QOF measures achievement against a range of evidence-based indicators, with points and payments awarded according to the level of achievement.

Information available through QOF can be used in the planning of health services.

Source of QOF and Prevalence Data

The source of QOF tables published by the Department of Health, Social Services and Public Safety (DHSSPS) is the Payment Calculation and Analysis System (PCAS), a Northern Ireland IT system that supports the QOF payment process.

The QOF tables published by the DHSSPS use practice list sizes supplied to PCAS from the National Health Applications and Infrastructure Services (NHAIS).

Prevalence Data in the QOF

Data on the prevalence of specific diseases or conditions is an important element of the QOF and will be of particular interest to many parties. Prevalence is a measure

[14] http://www.eyehealthmodel.org.uk

of the burden of a disease in a population at a particular point in time (and is different to incidence, which is a measure of the number of newly diagnosed cases within a particular time period).

Note that some of the new clinical domains are not measuring prevalence of a disease or condition. For example the depression 1 register counts the number of patients with diabetes and/or CHD for whom case finding for depression has taken place. Also the smoking domain register counts the number of patients with specific conditions whose smoking status has been recorded; this therefore cannot be used to determine prevalence of smoking.

In general the new registers should be treated with caution in the first year of reporting as they are still being established and validated.

Reported Prevalence

The raw prevalence for each practice is calculated by dividing the number of patients on the relevant register by the number of patients the practice has on its total registered list. The prevalence data published here are shown as rates per 1,000 patients.

Appendix 1 details the DHSSPSNI's recommendations on how QOF data should be used and interpreted.

Table 27: NI Prevalence Rates at March 2010[15]

Clinical Disease Area	NI Prevalence for QOF Payment Purposes	NI Prevalence where age-specific groups
Diabetes (population aged 17+)	3.70%	4.73%
Hypertension	12.45%	12.45%
Obesity (population aged 16+)	9.35%	11.73%
Coronary Heart Disease	4.03%	4.03%

[15] Quality & Outcomes Framework Statistics For Northern Ireland 2009/10, DHSSPSNI.

Table 28: QOF Diabetes Register (aged 17+)

Local Commissioning Group	Number of Participating Practices	Total Register Size	Raw Prevalence per 1,000 Patients
Belfast	87	15,935	37.61
South Eastern	55	12,134	38.47
Northern	81	17,008	38.51
Southern	75	12,336	33.71
Western	58	11,567	36.49
Northern Ireland	**356**	**68,980**	**37.01**

Quality & Outcomes Framework (QOF) April 2009 - March 2010, Northern Ireland GP Practices.
Diabetes Register = All patients aged 17 years and over with Diabetes Mellitus Type 1 or Type 2.
Data Source:
Payment Calculation and Analysis System (PCAS) as at 31 March 2010, taking account of locally resolved adjustments up to 30 June 2010.
Register sizes and raw prevalence figures are as at 31 March 2010.

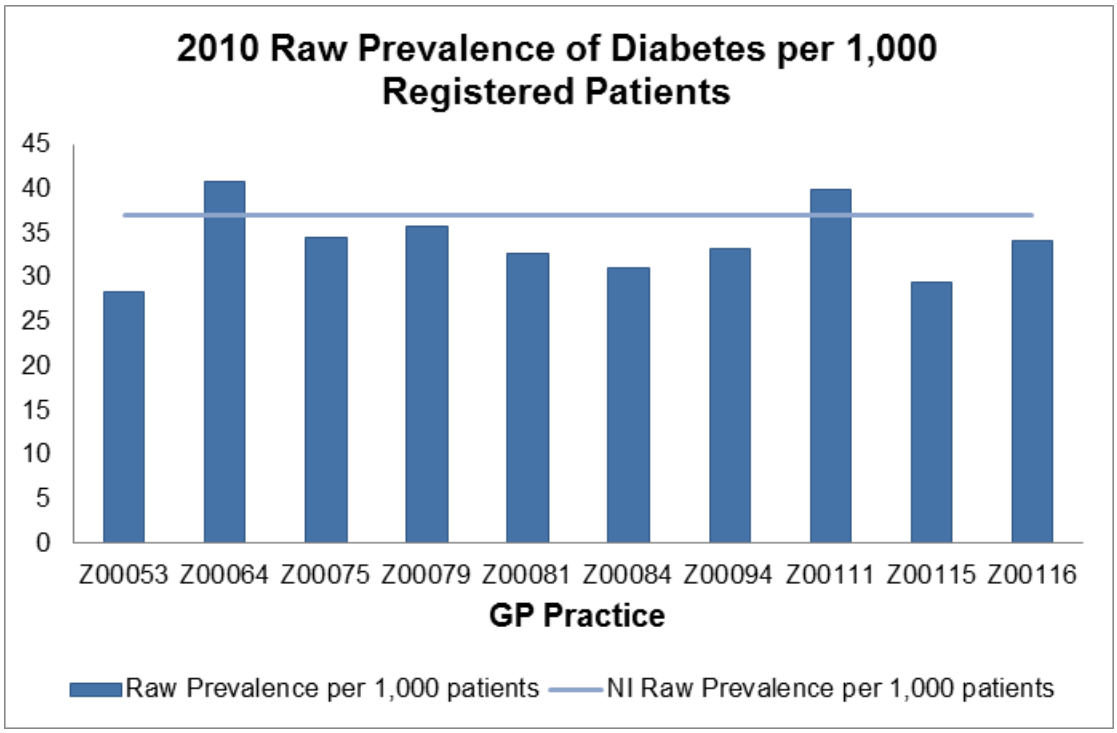


Figure 21: 2010 Raw Prevalence of Diabetes per 1,000 Registered Patients for the 10 Practices in CEP Area

Table 29: QOF Hypertension Register

Local Commissioning Group	Number of Participating Practices	Total register size	Raw Prevalence per 1,000 patients
Belfast	87	51,274	121.02
South Eastern	55	41,335	131.04
Northern	81	58,042	131.42
Southern	75	43,863	119.86
Western	58	37,425	118.06
Northern Ireland	**356**	**231,939**	**124.45**

Quality & Outcomes Framework (QOF) April 2009 - March 2010, Northern Ireland GP Practices.
Hypertension Register = All patients with established hypertension.

Data Source:
Payment Calculation and Analysis System (PCAS) as at 31 March 2010, taking account of locally resolved adjustments up to 30 June 2010.
Register sizes and raw prevalence figures are as at 31 March 2010.

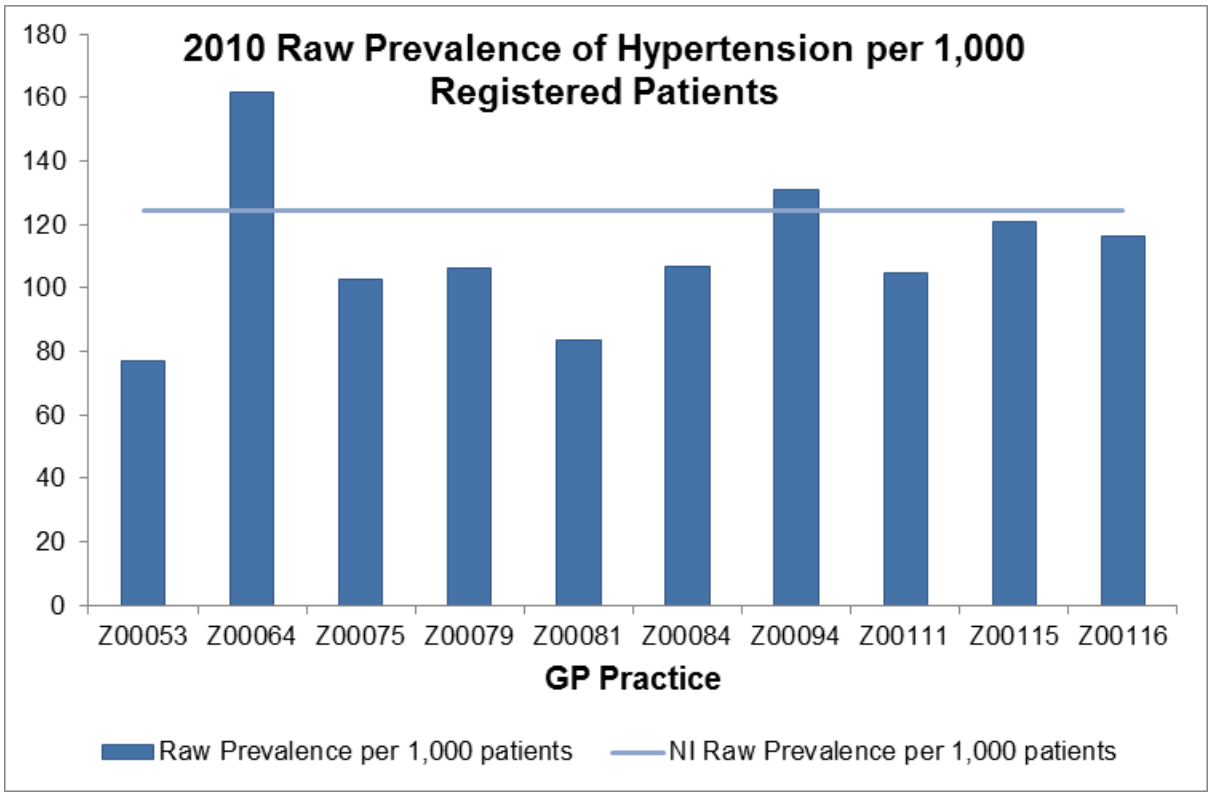


Figure 22: 2010 Raw Prevalence of Established Hypertension per 1,000 Registered Patients for the 10 Practices in CEP Area

7.1.2 Diabetic Retinopathy Screening Programme Database

The requirement to develop a Diabetic Retinopathy Screening Programme (DRSP) in Northern Ireland was detailed in *Priorities for Action 2005–2008*. Screening is offered to all eligible people with diabetes.

The UK national screening committee recommends that screening for diabetic retinopathy should be offered annually to all people with diabetes, aged 12 years and over, and that the screening test should consist of digital retinal photography within an organised programme. The Northern Ireland DRSP has adopted this recommendation.

In 2008–2009, the first complete year following the roll-out of the programme, approximately 43,000 screening appointments were offered, an increase on the previous year from 34,000 (2007–2008). Over 75% of those invited attended for the screening test. Referral for full ophthalmological assessment was advised in 6% of those screened[16].

Key Facts about Northern Ireland DRSP (2008 – 2009)

Number of patients with diabetes: 59,534
Number of patients eligible to be screened: 55,820

Number of patients invited for screening: 43,063
Number of patients attended for screening: 32,265
Uptake rate: 75%

Referral rate from DRSP for assessment/treatment: 6% (1,896)

Table 30: Numbers of Diabetics Residing in CEP Area

Ward	Number of Type 1 Diabetics	Number of Type 2 Diabetics	Number of Diabetics (type unknown)	Total Number of Diabetics in Ward
Clonard	32	147	2	181
Falls	27	187	1	215
Upper Springfield	25	190	0	215
Whiterock	23	208	0	231
CEP Total	**107**	**732**	**3**	**842**

[16] Northern Ireland Diabetic Retinopathy Screening Programme: Annual Report 2008-2010, Pubic Health Agency.

Table 31: Number of CEP Resident Diabetic Patients Registered in each of the 10 GP Practices in the CEP Area

Practice Code	Number of Diabetic Patients
Z00053	26
Z00064	41
Z00075	143
Z00079	70
Z00081	62
Z00084	25
Z00094	117
Z00111	32
Z00115	8
Z00116	45
	569

569 of the 842 (68%) diabetic patients residing in the CEP Area are registered with one of the ten local GP surgeries.

7.1.3 General Ophthalmic Services (GOS) Statistics

The Business Services Organisation provided ophthalmic statistics for the four ophthalmic premises in the CEP area for the period April 2010 to March 2011. Table 32 provides numbers of sight tests, glasses dispensed and domiciliaries undertaken by each of the ophthalmic practices. Table 33 provides statistics for services provided to children by these four practices.

Table 32: Ophthalmic Statistics for Practices in the CEP Area

Practice	Ward Name	Sight Tests	Glasses	Domiciliaries
Practice 1	Falls	3,465	2,607	0
Practice 2	Falls	817	520	9
Practice 3	Falls	2,009	1,644	91
Practice 4	Upper Springfield	974	1,151	34

Table 33: Ophthalmic Statistics (Children Only) for Practices in the CEP Area

Practice	Ward Name	Sight Tests	Vouchers	Repairs
Practice 1	Falls	600	529	155
Practice 2	Falls	150	112	32
Practice 3	Falls	350	286	105
Practice 4	Upper Springfield	266	221	165

7.1.4 RNIB Client Database

Adult patients seen by RNIB Eye Care Liaison Officers (ECLO) in past two years.

Table 34: Adult Patients seen by ECLOs in Past 2 years

Ward	Number of Adult Male Patients	Number of Adult Female Patients	Total Number of Adult Patients
Clonard	23	10	33
Falls	20	16	36
Upper Springfield	12	17	29
Whiterock	16	13	29
CEP Area	**71**	**56**	**127**

7.1.5 National Eye Health Epidemiological Model (NEHEM)

Table 35: Estimate of AMD Cases for Belfast Local Government District

AMD Cases	NV-AMD Cases	Geographic Atrophy Cases	Drusen Cases
2173	1537	761	9491
2.64%	1.87%	0.93%	11.54%

Table 36: Estimate of Cataract Cases for Belfast Local Government District

High Estimate	Low Estimate
8113	2311
6.95%	1.98%
There is a wide range of case definitions of cataract prevalence in the various epidemiological studies found and there is controversy over which one best represents a figure useful for the eye community or commissioners. Therefore we have provided two cataract estimates, a higher and lower, based on two well-designed population prevalence studies.	

Table 37: Estimate of Glaucoma Cases for Belfast Local Government District

Mean Estimated Glaucoma Cases These figures are the eye condition prevalence, i.e., the total number of people in the chosen geographical area with the eye condition. This is the best estimate from the available evidence.	2242	1.48%
High Estimated Glaucoma Cases The 'high' and 'low' estimates are the upper and lower '95% confidence limits', i.e., there is 95% confidence that the true number of glaucoma cases lies between the high and low values. These limit values are only guides to the precision of the mean estimate of prevalence. The 'mean estimated glaucoma cases' is the best figure to use.	3183	2.10%
Low Estimated Glaucoma Cases The 'high' and 'low' estimates are the upper and lower '95% confidence limits', i.e., there is 95% confidence that the true number of glaucoma cases lies between the high and low values. These limit values are only guides to the precision of the mean estimate of prevalence. The 'mean estimated glaucoma cases' is the best figure to use.	1381	0.91%
Suspects Under 60	4914	5.00%
Suspects 60+	3705	7.00%
Total Suspects	8620	5.70%
Ocular Hypertension	4839	3.20%

7.1.6 Secondary Care Data

Ophthalmology Day Cases

Tables 38, 39 and 40 detail the number of patients treated as day cases in the financial year 2007/08, 2008/09 and 2009/10 respectively, where the patients ward of residence is one of the 4 CEP wards, for:

- Macular degeneration
- Glaucoma
- Diabetic retinopathy

The tables also provide Northern Ireland level data for the same years.

Source: PASDSS/Business Objects/Admissions and Discharges Universe
Run Date: 27.01.2011
Ref: Q1081/HF

Notes:
ICD 10 Codes used are as follows:

- H35.3 Macular Degeneration
- H40.1 Glaucoma
- E14.3 Diabetic Retinopathy (should be combined with ICD10 code H36.0, but this code was not recognised)
- H25.8 Cataract (over 55 years old)
- H26.0 Cataract (under 55 years old)

Table 38: Number of Patients Treated as Day Cases in Financial Year 2007/08

Diagnostic Description	19-64	65+	CEP Area Total	All Northern Ireland	% of All NI
Degeneration Of Macula And Posterior Pole	0	3	**3**	528	0.0057
Infantile, Juvenile And Presenile Cataract	2	0	**2**	103	0.0194
Other Senile Cataract	11	68	**79**	2714	0.0291
Primary Open-Angle Glaucoma	1	0	**1**	83	0.012
Unspecified Diabetes Mellitus With Ophthalmic Complications	24	18	**42**	1917	0.0219
Total	**38**	**89**	**127**	**5345**	**0.0238**

Table 39: Number of Patients Treated as Day Cases in Financial Year 2008/09

Diagnostic Description	19-64	65+	CEP Area Total	All Northern Ireland	% of All NI
Degeneration Of Macula And Posterior Pole	4	17	**21**	1346	0.0156
Infantile, Juvenile And Presenile Cataract	3	0	**3**	128	0.0234
Other Senile Cataract	17	73	**90**	3008	0.0299
Primary Open-Angle Glaucoma	0	1	**1**	106	0.0094
Unspecified Diabetes Mellitus With Ophthalmic Complications	26	18	**44**	1955	0.0225
Total	**50**	**109**	**159**	**6543**	**2.43**

Table 40: Number of Patients Treated as Day Cases in Financial Year 2009/10

Diagnostic Description	19-64	65+	CEP Area Total	All Northern Ireland	% of All NI
Degeneration Of Macula And Posterior Pole	0	1	**1**	316	0.0032
Infantile, Juvenile And Presenile Cataract	3	0	**3**	101	0.0297
Other Senile Cataract	2	32	**34**	1408	0.0241
Primary Open-Angle Glaucoma	0	0	**0**	109	0
Unspecified Diabetes Mellitus With Ophthalmic Complications	12	16	**28**	1986	0.0141
Total	**17**	**49**	**66**	**3920**	**0.0168**

Ophthalmology Inpatients

Tables 41, 42 and 43 detail the number of patients treated as inpatients in the financial year 2007/08, 2008/09 and 2009/10 respectively, where the patients ward of residence is one of the 4 CEP wards, for:

- Macular degeneration
- Glaucoma
- Diabetic retinopathy

The tables also provide Northern Ireland level data for the same years.

Source: PASDSS/Business Objects/Admissions and Discharges Universe
Run Date: 27.01.2011
Ref: Q1081/HF

Notes:
ICD 10 Codes used are as follows:

- H35.3 Macular Degeneration
- H40.1 Glaucoma
- E14.3 Diabetic Retinopathy (should be combined with ICD10 code H36.0, but this code was not recognised
- H25.8 Cataract (over 55 years old)
- H26.0 Cataract (under 55 years old)

All inpatients for the 4 wards were treated at Royal Victoria Hospital, Belfast

Table 41: Number of Patients Treated as Inpatients in Financial Year 2007/08

Diagnostic Description	CEP Elective Total	CEP Non-Elective Total	All NI Elective Total	All NI Non-Elective Total	% of All NI Elective Total	% of All NI Non-Elective Total
Degeneration Of Macula And Posterior Pole	0	0	50	4	0%	0%
Infantile, Juvenile And Presenile Cataract	0	0	37	2	0%	0%
Other Senile Cataract	4	0	508	8	0.79%	0%
Primary Open-Angle Glaucoma	2	0	26	1	7.69%	0%
Unspecified Diabetes Mellitus With Ophthalmic Complications	0	0	42	3	0%	0%
Total	**6**	**0**	**663**	**18**	**0.90%**	**0%**

Table 42: Number of Patients Treated as Inpatients in Financial Year 2008/09

Diagnostic Description	CEP Elective Total	CEP Non-Elective Total	All NI Elective Total	All NI Non-Elective Total	% of All NI Elective Total	% of All NI Non-Elective Total
Degeneration Of Macula And Posterior Pole	1	0	92	10	1.09%	0%
Infantile, Juvenile And Presenile Cataract	0	0	55	4	0%	0%
Other Senile Cataract	9	1	532	8	1.69%	12.50%
Primary Open-Angle Glaucoma	1	0	29	8	6.90%	0%
Unspecified Diabetes Mellitus With Ophthalmic Complications	0	0	45	2	0%	0%
Total	**11**	**1**	**753**	**32**	**1.46%**	**3.13%**

Table 43: Number of Patients Treated as Inpatients in Financial Year 2009/10

Diagnostic Description	CEP Elective Total	CEP Non-Elective Total	All NI Elective Total	All NI Non-Elective Total	% of All NI Elective Total	% of All NI Non-Elective Total
Degeneration Of Macula And Posterior Pole	1	0	57	2	1.75%	0%
Infantile, Juvenile And Presenile Cataract	1	0	65	3	1.54%	0%
Other Senile Cataract	6	0	260	12	2.31%	0%
Primary Open-Angle Glaucoma	1	0	48	11	2.08%	0%
Unspecified Diabetes Mellitus With Ophthalmic Complications	0	0	20	2	0%	0%
Grand Total	**9**	**0**	**450**	**30**	**2%**	**0%**

Wet AMD Service

The Wet AMD Service is provided by two Trusts in Northern Ireland.

Table 44: Wet AMD Activity 2010/11 – All Clinics (Apr 10 – Mar 11)

Trust	Attendances (New)	Attendances (Follow up)	Attendances
Belfast H&SC Trust	761	7103	7864
Western H&SC Trust	83	1348	1431
	844	**8451**	**9295**

WET AMD Activity 2010/11 - Clinic description identified as 'Injection' (Apr 10 - Mar 11)

Trust	Attendances (New)	Attendances (Follow up)	Attendances
Belfast H&SC Trust	**1**	**773**	**774**

Audit of Ophthalmology Referrals and Outpatients

The Health & Social Care Board conducted an audit of new referrals to secondary care ophthalmology services during the first week of October in 2010. Table 45 provides details of the total number of referrals to each hospital and the number of these that were for glaucoma. Overall 14.9% of new patient referrals to ophthalmology during the audit week were for glaucoma.

Table 45: Audit of New Ophthalmology Referrals in N.I. 2-8th October 2010

Hospital	Total Referrals	Referrals for Glaucoma (%)
RVH	247	23 (9.3)
Mater	120	22 (18.3)
BCH	19	1 (5.3)
UHD	67	13 (19.4)
LVH	27	5 (18.5)
Downe	33	6 (18.2)
Southern Trust	148	19 (12.8)
Antrim	56	10 (17.9)
Causeway	46	7 (15.2)
Mid-Ulster	21	6 (28.6)
Erne	27	1 (3.7)
Altnagelvin	108	21 (19.4)
Tyrone County	23	6 (26.1)
Roe Valley	4	1 (25.0)
Total	**946**	**141 (14.9)**

In a follow up audit in November 2010 staff from the Health & Social Care Board undertook a Northern Ireland wide audit of all consultant letters to GPs as a consequence of outpatient clinics in ophthalmology. As table 46 on the next page shows 31.6% of the letters to GPs were in relation to patients with glaucoma.

Table 46: Consultant Letter Audit, Ophthalmology Outpatients, 22-26 November 2010

Hospital	Number of Glaucoma Patients	Total Number of Consultant Letters	Percentage of Letters that relate to Glaucoma Patients
RVH	143	535	26.7
Mater	34	182	18.7
BCH	21	40	52.5
UHD	16	29	55.2
Ards	29	61	47.5
Bangor	1	3	33.3
LVH	14	60	23.3
Downe	11	33	33.3
South Tyrone	7	17	41.2
Armagh	5	22	22.7
CAH	11	36	30.6
Newry	15	43	34.9
Antrim	16	33	48.5
Braid Valley	30	65	46.2
Causeway	21	64	32.8
Mid-Ulster	27	57	47.4
Erne	22	61	36.1
Altnagelvin	65	226	28.8
Tyrone County*	9	9	100
Roe Valley	2	3	66.7
Total	**1,579**	**499**	**31.6**

* Glaucoma Clinic

8. DISCUSSION

This report aims to be a useful resource for those working on the West Belfast Community Engagement Project but it will also hopefully have wider applicability. It draws on numerous resources to provide background information on both the eye conditions of relevance and the area covered by the project.

The CEP area has a resident population of approximately 20,000. In comparison to Northern Ireland it has a relatively young population. It is an area with high levels of deprivation as measured by either the NI Multiple Deprivation Measure or by Investing for Health Indicators. Each of the four electoral wards that make up the CEP area are ranked within the top most 2% of wards for deprivation when all 582 electoral wards in Northern Ireland are placed in rank order. The only domain of the NI Multiple Deprivation Measure where the CEP area is not ranked as deprived is on proximity to services. This is because of the CEP area is located in Belfast and residents have ready access to most services. In particular residents of the CEP area are very close to secondary care services.

Poor eye health is a significant burden to those affected but avoidable sight loss is also a significant burden due to direct health service costs and as a result of the impact to the wider economy.

This report outlines in detail the known risk factors for developing the most common causes of visual impairment and sight loss. In particular those factors which are modifiable have been highlighted.

Referral data from local GP practices show that referrals from the North and West Belfast Locality, in keeping with referral figures at Belfast LCG level and NI wide, have been increasing year on year for several years. Needless to say this is accompanied by a similar increase in expenditure.

At the time of drafting this report the Department of Health, Social Services and Public Safety NI is consulting on developing eye care partnerships for improving eye care provision and this should provide an excellent opportunity to ensure our services best match patient needs whilst maximising use of resources in financial constrained times.

This report illustrates the usefulness of secondary use of data to profile health need. In particular the use of anonymised data from the NI Diabetic Retinopathy Screening Database with the permission of the relevant data guardian provided a rich source of information.

9. RECOMMENDATIONS

1. In developing approaches to minimising avoidable sight loss partners in the West Belfast CEP should pay attention to modifiable risk factors for the main eye conditions.
    a. In particular smoking, diet, exposure to sunlight and other health conditions (hypertension, cardiovascular disease and diabetes) are important modifiable risk factors shared by some of the main eye conditions.

2. Given that eye conditions share risk factors with other significant medical conditions such as cardiovascular disease, a good example being smoking, eye health messages should be included along with health promotion messages on other relevant topics.

3. The importance of regular sight tests should be communicated to the local community.

4. Consideration should be given to providing sight tests in venues / times that are not connected to the sale of spectacles.
    a. A review of the General Ophthalmic Services (GOS) contract may provide an opportunity to fund the service in a different way and potential remove this barrier to people having sight tests.

5. The West Belfast CEP should consider the current DHSSPSNI consultation document on developing eye care partnerships and explore the possibility of working alongside local general medical services (GMS) and general ophthalmic services (GOS) providers to develop improved pathways for a local patients.

APPENDIX 1: RECOMMENDATIONS AROUND THE USE OF QOF DATA

The data collected for the Quality & Outcomes Framework provides some useful information for researchers and public health officials in terms of disease prevalence and information about general practices. However, it is important to note the limitations of using the QOF data to make further inferences and conclusions.

The following points should be noted:

- It may be inappropriate to use the data to make comparisons between practices in terms of the quality of care offered. For instance, the clinical disease areas chosen for the Quality & Outcomes Framework represent the minority of patients in Northern Ireland and therefore points achievement in these areas does not reflect the full workload of general practices.

- The Quality & Outcomes Framework system takes into account general practice list size and disease prevalence before calculating payment, therefore comparing practices by isolating particular domain points achieved does not take into account the full system of QOF.

- The data collected for the clinical domains on prevalence contains a count of patients on each register only, no patient details such as age or gender are held. It is essential to note that it is raw, unadjusted data that has been published, particularly when looking at comparisons at LCG level.

- The PCAS system does not hold information on co-morbidity i.e. patients with more than one condition. Many patients are likely to have been diagnosed with more than one condition, therefore it is not correct to simply add prevalence figures together as no patient-specific data is held.

- Prevalence figures will not be directly comparable across all years where definitions have been revised.

- Each general practice's achievement will be partly dependent on the number of points each practice aspired to. Therefore not all practices will have commenced QOF from the same baseline and not all will have improved to the same extent. Practices may have had different standards in terms of recording diagnoses and other administrative procedures.

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