A review of low vision service provision in Scotland

An independent review commissioned by the Scottish Government by Dr Helen Court & Gillian Mitchell of NHS Education for Scotland and Sight Action

April 2017

Scottish Government
Riaghaltas na h-Alba
gov.scot

Executive Summary

Low vision services aim to enable people with loss of vision to regain or maintain as much independence and autonomy as possible, and can include rehabilitation, visual aids, emotional support and advice. Low vision is common in older people and impacts on every part of a person's life. It is associated with falls, reduced capacity to carry out everyday activities, the need for residential care and is one of the strongest risk factors for functional status decline in community living adults. Evidence suggests that low vision services significantly reduce visual disability and are associated with positive patient outcomes. Furthermore, for the relatively small costs of low vision aids, there can be huge cost saving in terms of health and social care support.

To enable effective planning of services and respond to the needs of an ageing population, it is essential to understand the current provision within Scotland. To date, there has been no comprehensive review of services to facilitate this planning. Therefore, the Scottish Government has commissioned this review with the aim of determining the nature, extent and geographical distribution of low vision services in Scotland and to compare this with the location of older people.

The data was collected using a questionnaire. A total of 45 services were identified across Scotland, of which about half were optometry practices and hospital clinics, and the remainder were social services, local societies/charities and specialist teachers.

Geographical mapping of the services identified a cluster of services around the more densely populated central belt of Scotland and considerably more scarcity around the rural (more elderly) areas. The results identified an inequality of access to services in terms of both waiting times and provision of aids.

The review identifies a number of challenges to consider for future planning of services, including access, service capacity and effective integration and signposting between service providers.

Table of contents

List of figures

List of abbreviations

CVI – Certificate of Visual Impairment

LV – Low Vision

NHS – National Health Service

VI – Visual Impairment

VINCYP - Visual Impairment Network for Children and Young People

Introduction

The Scottish Government is committed to improving services for sensory impaired people in Scotland (See Hear strategy) (Scottish Government, 2014). This review has been commissioned to determine the current provision of low vision services.

This review aligns with the Community Eyecare Review *(insert link to document)* (Scottish Government, 2017), published alongside this report, which has identified the need to improve access to low vision services across Scotland. It also responds to calls to consider service redesign to provide patient care closer to home and optimise the roles of all clinicians to deliver safe and effective patient care, as outlined in the Modern Outpatient: A Collaborative Approach 2017-2020 (Scottish Government, 2016).

Anecdotal reports suggest that there is an under-provision and inequality of low vision services across Scotland. Furthermore, access to services can be delayed by geographical location of services and long waiting times. Therefore, it is timely to have a comprehensive study of current services as a basis for future service development.

1.0 Defining low vision and registration

1.0.1 Low Vision

In the UK 'low vision' has not been defined in legislation. However, a definition was adopted by the Low Vision Services Consensus Group (1999).

"A person with low vision is one who has an impairment of visual function for whom full remediation is not possible by conventional spectacles, contact lenses or medical intervention and which causes restriction in that persons everyday life."

This definition uses the person's functional ability rather than any specific level of acuity or other clinical measurements of function to define low vision. It goes on to say:

"This definition includes but is not limited to those who are registered as blind and partially sighted."

This definition acknowledges that there are individuals who are facing restriction in their life due to poor vision, but who are not yet at the stage of registration.

1.0.2 Registration

The statutory definition for the purposes of registration as a "blind" person under the National Assistance Act (1948) is that the person is "so blind as to be unable to perform any work for which eyesight is essential". "Partial sight" is not defined in the

act but a guideline for functional definition is given as: “substantially and permanently handicapped by defective vision caused by congenital, illness or injury”. In Scotland the current registration form (BP1) is undergoing review and will be replaced by The Certificate of Vision Impairment (CVI) form (Scotland). This form is for those people aged 16 and over (younger people are notified under the Visual Impairment Network for Children and Young People (VINCYP)). The CVI (Scotland) form will perform the same function as the BP1, in that it formally certifies someone as partially sighted or as blind (the proposed updated terms being ‘sight impaired’ or ‘severely sight impaired’, respectively) so that the local council can place their name on the register of sight impaired people. Registration provides the patient access to support and services, in addition to providing diagnostic and other data that may be used for epidemiological analysis.

Guidelines are given on the registration form about the level of impairment (including visual acuity and visual field) which help make the registration process more objective. However, it should be noted that these are only guidelines and the final decisions about who can be certified are made by a Consultant Ophthalmologist who is advised to take other circumstances (such as whether the person lives alone or if they also have a hearing impairment) into account.

1.1 The number of people with low vision in Scotland

To date, there is no data which accurately identifies the number of people in Scotland who have low vision. The best estimate is provided by Scottish Government registration data statistics. These were last published in 2010 and show 34,492 people are registered blind or partially sighted. However, as registration is optional, this number underestimates the true picture. Indeed, it has been suggested that registration data may only reflect 23-38% of eligible people (RNIB, 2013).

1.1.1 Future projections of the prevalence of low vision

The number of people with low vision is expected to increase in the future. Age is known to be a significant risk factor for vision loss and the number of people living in Scotland aged 65 and over is projected to increase by 53% over the next 25 years (National Records of Scotland, 2015).

1.2 The causes of low vision in the UK

Age related macular degeneration is the leading cause of sight loss in adults, followed by glaucoma, cataracts and diabetic retinopathy. The major causes of blindness in children are distinctly different from those in the adult population. Prenatal factors (including genetic causes) are involved in over 60% of cases, and up to 77% of children with a visual impairment have either Cerebral Visual Impairment or Optic Nerve Disorders (Rahi and Cable, 2003). In the working age

population, the ocular complications of diabetes and glaucoma are the most common causes of blindness, in addition to Retinitis Pigmentosa.

1.3 How does low vision affect people?

Low vision impacts on every part of a person's life. It is associated with:

- Falls (Black and Wood, 2005, Schwartz et al., 2005, Abdelhafiz and Austin, 2003, Ivers et al., 2003)
- reduced capacity to carry out everyday activities (Haymes et al., 2002)
- the need for residential care (Vu et al., 2005)
- one of the strongest risk factors for functional status decline in community-living people (Stuck et al., 1999)

However, because older people often have multiple health problems (Barnett et al., 2012), many of these individuals may also have additional health conditions which further compromise health and rehabilitation outcomes, including reduced quality of life, disability, increased healthcare costs, increased inpatient admissions and higher death rates (Marengoni et al., 2011).

1.4 Low vision services

In 1999, in the UK, the Low Vision Consensus Group which was made up of professional and user groups defined a low vision service:

"A low vision service is a rehabilitative or habilitative process, which provides a range of services for people with low vision to enable them to make use of their eyesight to achieve maximum potential." (Low Vision Services Consensus Group, 1999)

In 2002, the College of Optometrists further identified the aim of low vision services:

"The primary aim of low vision services is to enable people with loss of vision to regain or maintain as much independence and autonomy as possible. Low vision services achieve this through a wide range of tools depending on individuals needs including: rehabilitation, visual aids, emotional support and advice." (*The College of Optometrists, 2013)*

Traditionally, low vision services were provided in hospitals by both optometrists and dispensing opticians (Silver and Thomsitt, 1977). Early low vision assessments focused largely on the provision of optical low vision aids (magnifiers) which provided the patient with access to conventional sized print (Bier, 1960). However, these services have evolved and now encompass a more holistic rehabilitative approach

including: assessment of a patient's understanding of their ocular condition and its prognosis; discussion of needs and initial goal setting; assessment of vision; provision of low vision aids; advice about lighting and other methods of enhancing vision; provision of information about the ocular condition and other rehabilitative services; referral to such services, where necessary; re-appraisal of goals; and arrangement for follow up (Reeves et al., 2004).

Over a 25 year period, there has been considerable change to the assessment of the visual status of low vision patients in the United Kingdom (Culham et al., 2002). Indeed, it is no longer only the hospital who provide services. Low vision services in the UK are now supported by various providers who input different parts of care and support. Across the UK there are a variety of service models, which include hospital based clinics, multi-disciplinary services, primary care models and out-sourced hospital clinics. Funding for such services are generally via the NHS, local authorities and the third sector.

In 2002 low vision services were mapped nationally across the UK (Culham et al., 2002). The conclusion from that report was that the distribution of services was geographically uneven and there appears to be scarcity in some areas. Furthermore, it highlighted apparent inadequacies in service provision in terms of distribution, magnitude, and coordination. Nearly twenty years on from the collection of that mapping data, there is no current comprehensive overview of the state of low vision service provision in Scotland.

1.5 Aim of this project

The aim of this study is to provide an up-to-date review of low vision service provision in Scotland. This aim will be achieved by determining the nature, extent and geographical distribution of low vision services in the Scotland and to compare this with the location of older people.

Method

A retrospective survey was used to gather data from low vision services across Scotland.

2.0 The Advisory Group

An advisory group were selected to review the methods and survey content. The group consisted of research leaders in the field of low vision service development and provision.

- Dr Tom Margrain, Reader, Optometry & Vision Sciences, Cardiff University
- Dr Barbara Ryan, Chief Optometric Advisor to the Welsh Assembly
- Dr Ann Sinclair, Ophthalmologist, NHS Fife

2.1 Assumptions

The basic assumptions based on current professional knowledge of services, were that:

• there is no set pattern of provision;

• services are being provided in many types of location;

• services are using a variety of professional and voluntary practitioners who in turn were providing a variety of service models and

• there is a need for comprehensive data about service availability.

2.2 Design

A 15 item questionnaire was developed by Helen Court and Gillian Mitchell (see Appendix), based on knowledge from previous studies which sought to evaluate the provision of low vision services (Culham et al., 2002). The questionnaire was reviewed by a group of 5 optometrists (NHS Education for Scotland senior postgraduate tutors) and the advisory group to check content and face validity. The questions included detail about the type of service, sources of funding, services included, staff/agencies involved and referral routes.

The questionnaire was initially administered by telephone. This method of data collection was selected based on the experience and advice of Dr Barbara Ryan. One week prior to the telephone call, a covering letter was sent to all potential providers. Upon first telephone contact, the provider was offered the opportunity to respond to the survey over the phone. However, if they were unable to respond at that time, they were given the option of arranging a further call, being posted a paper copy (with pre-paid return envelope) or being sent an internet link to an online version of the questionnaire. After 2-4 weeks, if the paper or online questionnaire had not been completed, another questionnaire was sent. Failing this, a final telephone call was attempted.

2.2.1 Identification of potential service providers

The following groups were identified as potentially delivering a low vision service:

- Hospitals with eye departments
- Optometry practices
- Local authority social services
- Local societies/charities for people with VI
- Specialist teachers
- Glasgow Caledonian University Optometry department

Gillian Mitchell, Client Services Manager at Sight Action, compiled a database containing all the contacts for each of the groups. Service providers were identified using various existing published directories. Optometry Scotland, Dr Janet Pooley (Scottish Government Optometric Advisor) and the Optometric Advisors for each NHS Health Board also were contacted to help compile the database. These lists were then cross validated by contacting the Sensory Impairment Partnership leads (SeeHear team leads) – representatives from all Scottish local authorities responsible for overseeing sensory impairment provision. They were further validated by using lists provided from a mainstream low vision aid provider, who provides aids to services across Scotland.

Optometry practices were by far the largest potential group of providers (n=959[1]). Rather than phone all of these practices, practices were contacted who had been identified by the process above. Optometric Advisors will have the best knowledge of services in their area, and as such we are confident that we have contacted the majority of optometry providers. The database identified that there were four community-based services, and a number of practices providing private services.

2.3 Data analysis

All the survey data was entered into SPSS (ver 20) by Gillian Mitchell. For purposes of validation, data entry was checked by Helen Court. Analysis of the type and extent of services were performed using SPSS software.

Mapping the location of services across Scotland was achieved by using Instant Atlas (an interactive mapping programme), including data about Health Board boundaries and percentage of the pensionable aged people within each Board[2].

[1] NHS Education for Scotland, Optometry in Scotland: Education & Workforce Report, 2017

[2] *Population data National Office for Statistics: mid 2014*

Results

Data was gathered from March 2016-October 2016.

3.1 Response rate

Initially 105 potential providers were identified using the methods outlined above. Of these, there was a response rate of 76%. However, 21 of the non-respondents were optometry practices connected to a community scheme. The administrators of the schemes were contacted and provided grouped data for the schemes as a whole. A further 2 optometry practices and 2 specialist teachers did not respond.

Using the methods described above to identify services, there was difficulty establishing a list of specialist teachers. To that end, there may be an under-representation of this service type in this data set. However, it should be noted that this service type is specific to children, and as such are a distinct group from the other services (which provide the majority of services to those aged 16 and over).

3.2 Types of low vision service providers

A total of 45 low vision service providers were identified (figure 1). Of these, four were community optometry low vision schemes, which include 54 optometry practices.

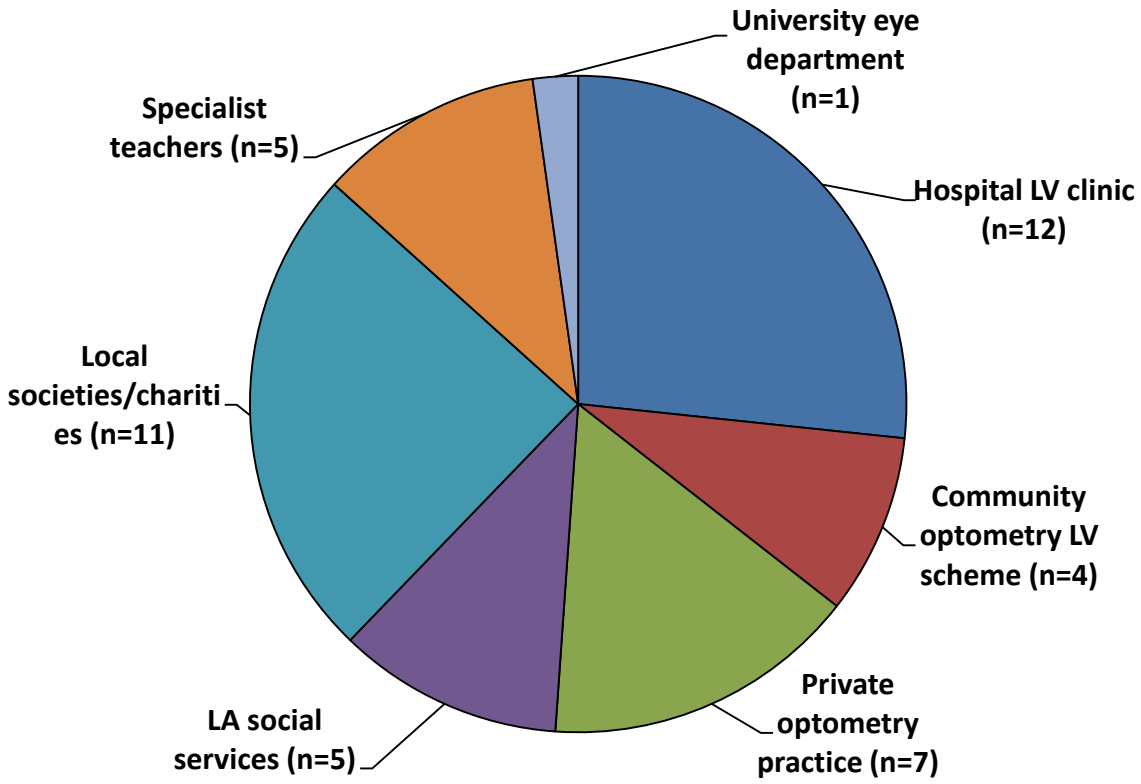

Figure 1: Low vision service providers in Scotland

3.3 Funding of services

Funding of the services is from a variety of sources (see figure 2). Hospital clinics and community-based LV schemes are exclusively NHS funded. All the funding from the department of education (n=3) was all for specialist teachers, with these providers also receiving funding from NHS contracts and social services. The services included in the 'other' were local organisations and the university eye clinic.

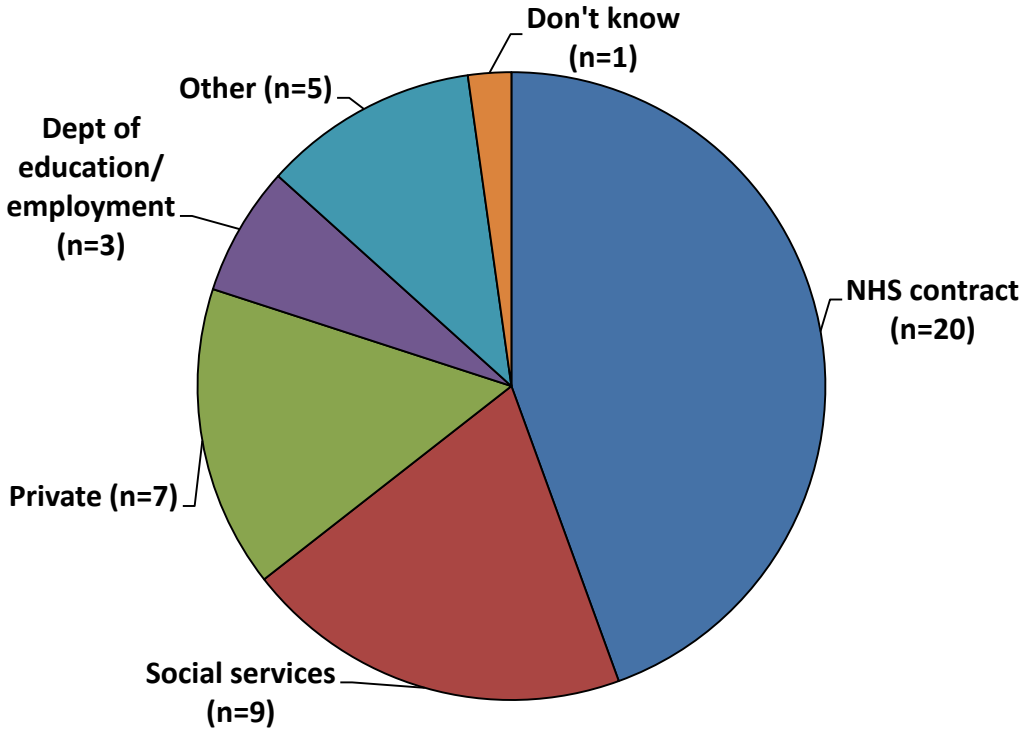

Figure 2: Funding sources for low vision services

3.4 Geographical location of services

The distribution of low vision service providers throughout Scotland is illustrated in Figure 3. There is a distinct clustering of services in urban areas where population densities are highest, while rural regions are less well served.

The map also identifies the separate health boards, which are shaded to represent the percentage of people over pensionable age i.e. areas of darker shading have a higher proportion of older individuals. The prevalence of low vision increases with age, and therefore we can infer that areas shaded darker also have a higher proportion of people living with low vision. In Health Boards where there is a higher proportion of older people but the population is smaller, the number of service providers is relatively low e.g. Western Isles, Orkney, Dumfries & Galloway, Borders.

Conversely, in areas of higher population density but a higher percentage of younger people, services are more available e.g. GGC, Lothian.

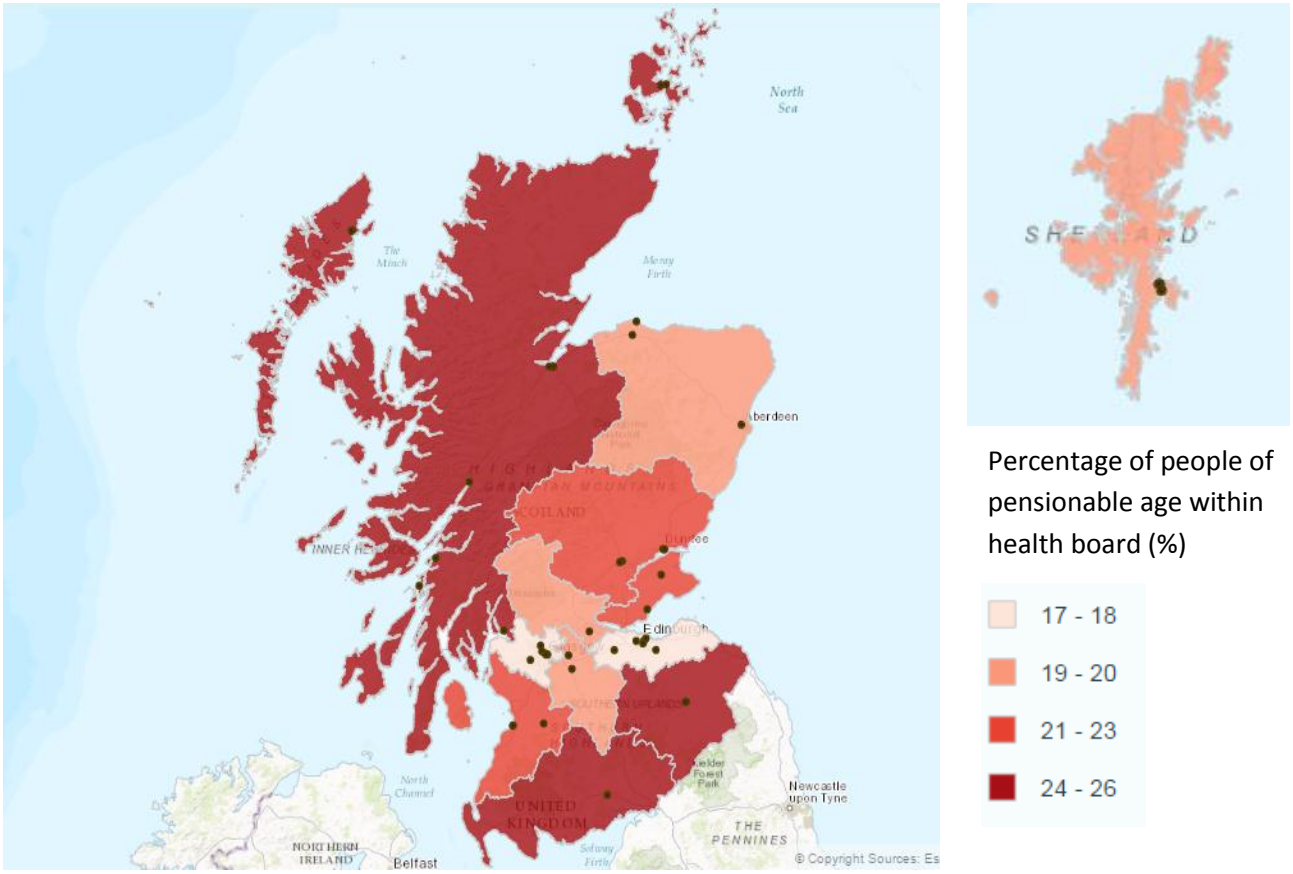

Figure 3: Map to show location of low vision service providers against percentage of individuals over pensionable age according to local health board boundaries (ONS, 2014). Small spots indicate low vision provider locations.

Figure 4 identifies that no service provider is represented within all 14 Scottish NHS Health Boards. The hospital service provides low vision assessments in 75% of the Health Boards (n=9). Of the five health boards with no direct hospital presence, three of the Boards have large community based low vision schemes in operation (Lanarkshire, Ayrshire & Arran, Fife). The other two Boards (Western Isles & Orkney) are served mainly by resource/sensory centres funded by the local authority social services. Both these Boards also have a private optometry services available.

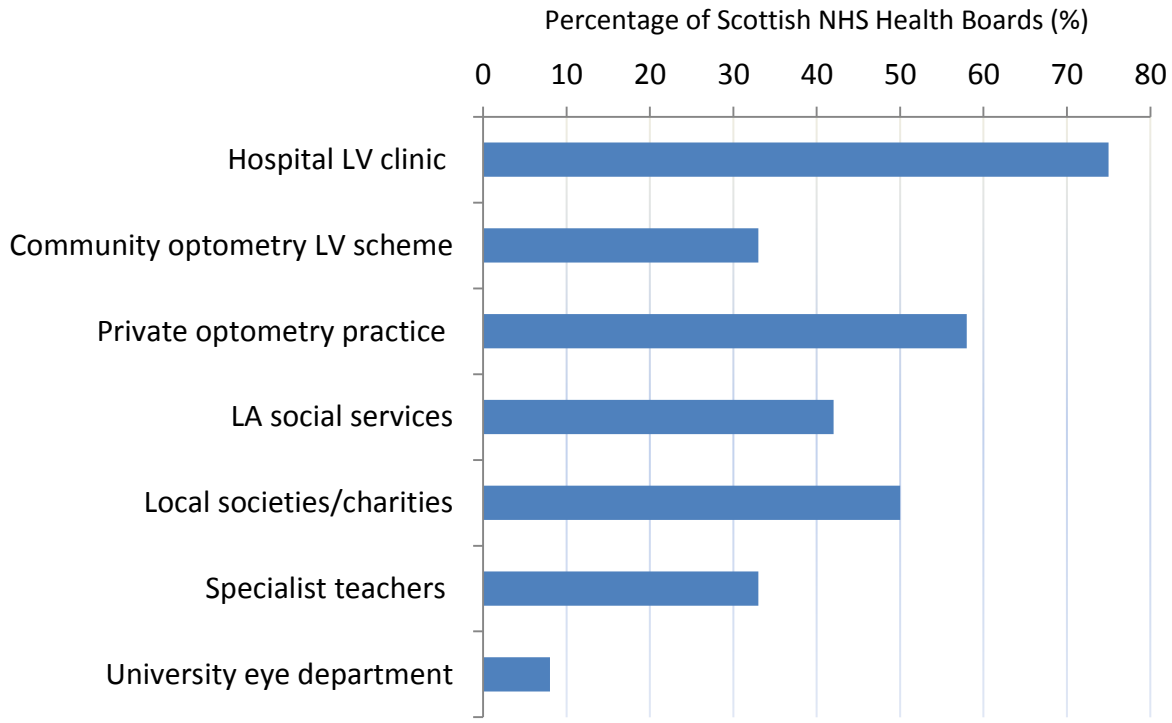

Figure 4: Percentage of NHS Health Boards providing different types of low vision service

3.5 Capacity of services

Figure 5 identifies the numbers of assessments (initial and review appointments) provided by each of the service providers within a 12 month period. The graph identifies that the services providing the largest number of assessments tend to be hospitals, community optometry low vision schemes and local societies/charities. It is important to note that whilst hospital and local societies/charities generally provide the service from one location, the community based service is provided via a group of optometry practices located throughout the health board.

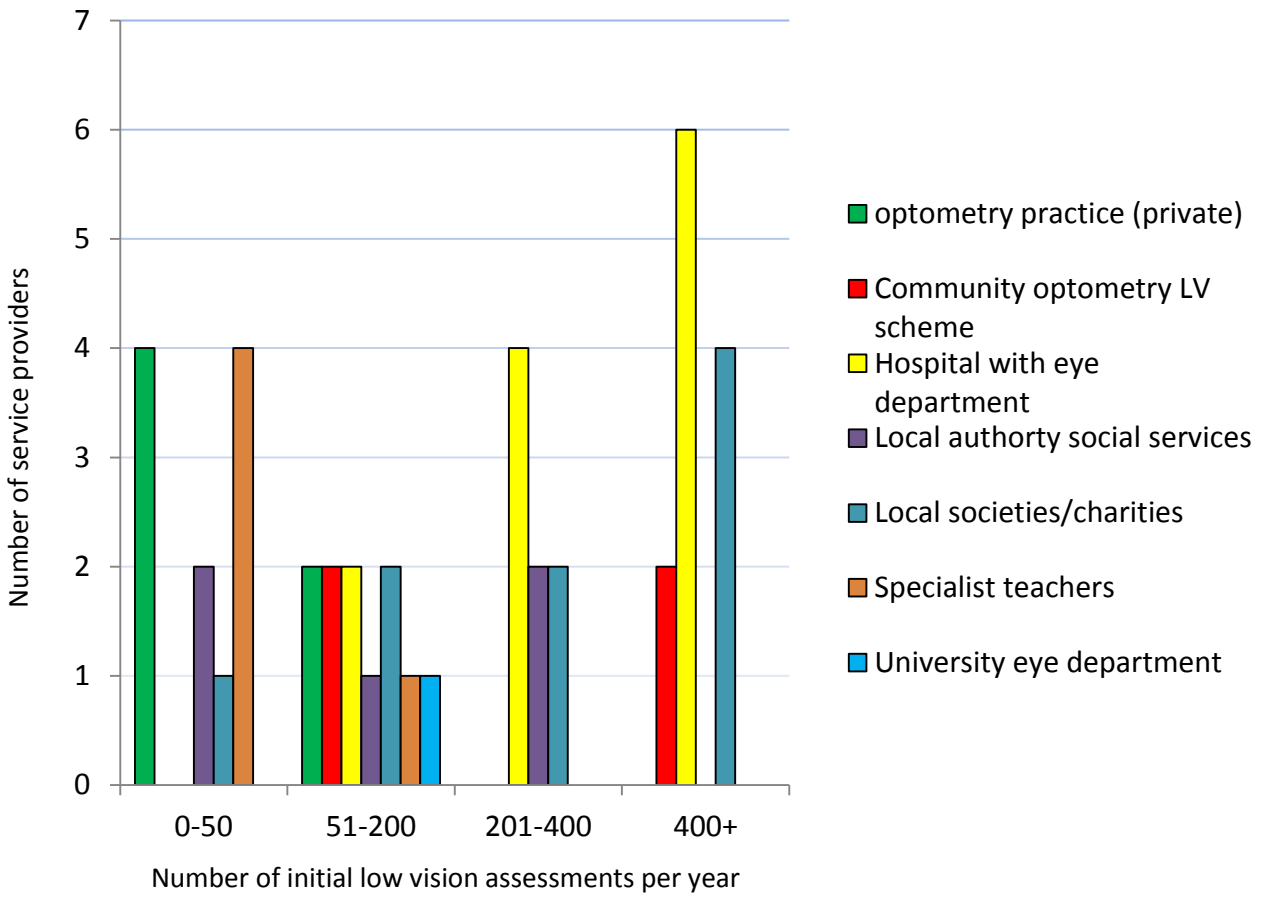

Figure 5: Number of low vision assessments (including initial and review assessments) per year across low vision service providers in Scotland

3.6 Waiting times

Figure 6 identifies the waiting times to access the service for an initial low vision assessment. All optometric services (private and community based schemes) had a waiting time of less than 2 weeks. Of the seven services with waiting times of 2 months – 6 months, five were hospitals with eye departments and two were local authority social services. One provider (specialist teacher) reported a waiting time of 6 months – 1 year.

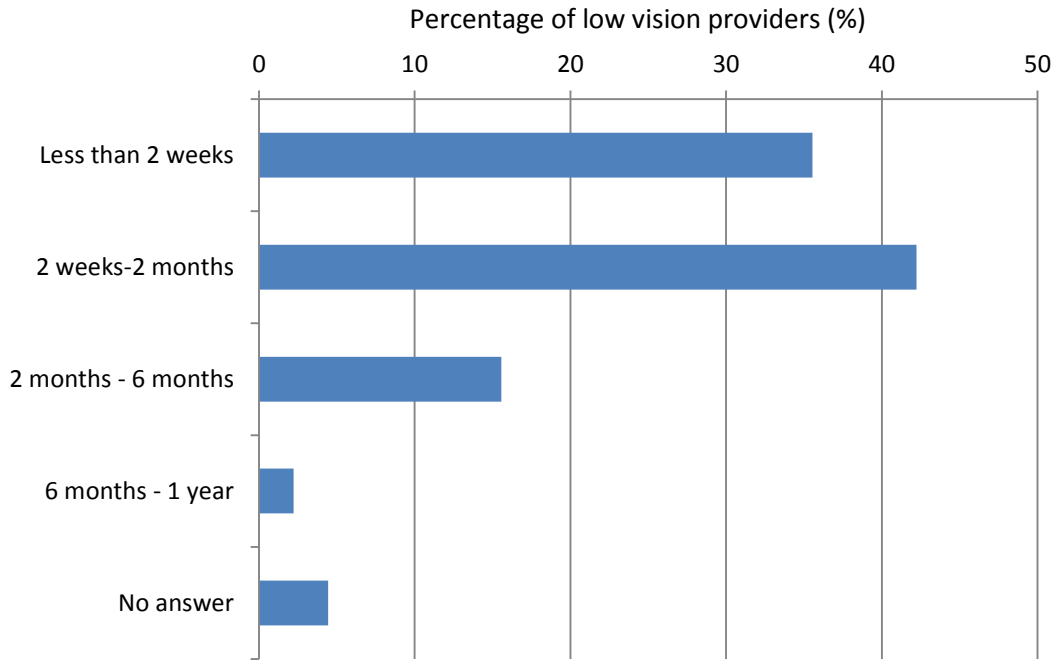

Figure 6: Waiting times to access low vision service

3.7 Services provided to patients

Figure 7 identifies the variability of services provided by the 45 low vision providers. All but two of the providers (local societies/charities) supply low vision aids.

Eye examinations are a feature of all optometry low vision providers and the majority of hospital services. Two hospital services reported not providing an ophthalmic or optometric eye examination, but these were both orthoptist led, and therefore it is possible that the orthoptist will check vision as part of the assessment. Eye examinations are reported in a small percentage of local societies/charities (n=3, 27%) and specialist teacher services (n=1, 20%), however they are not a feature of local authority social service provision.

Provision of counselling is mainly within the domain of local authority social services (n=4, 80%) and local societies/charities (n=6, 55%). This was reported as a feature in 50% of the hospital services and within one community based low vision scheme.

Provision of specialised low vision/rehabilitation training is provided by all local authority social services providers and the majority (91%) of local societies/charities.

It was reported as a feature of 5 (42%) hospital services. However, it is not reported within any optometry practice based services.

Social support is also a feature of all local authority social services and the majority of local societies/charities (n=9, 82%). It is almost absent from all other service providers. This is similar to home visits, which are a feature of all local authority social services and the majority of local societies/charities (n=10, 91%). Home visits are also reported to be a feature of two of the community based optometry low vision schemes and two of the private optometric providers. Home visits are largely absent from hospital services.

Transport and employment opportunities were reported in less than 25% of service providers. Neither of these services were provided by optometric services.

Large print is mainly provided by local societies/charities, local authority social services and specialist teachers. Again, this service is not provided by optometric services.

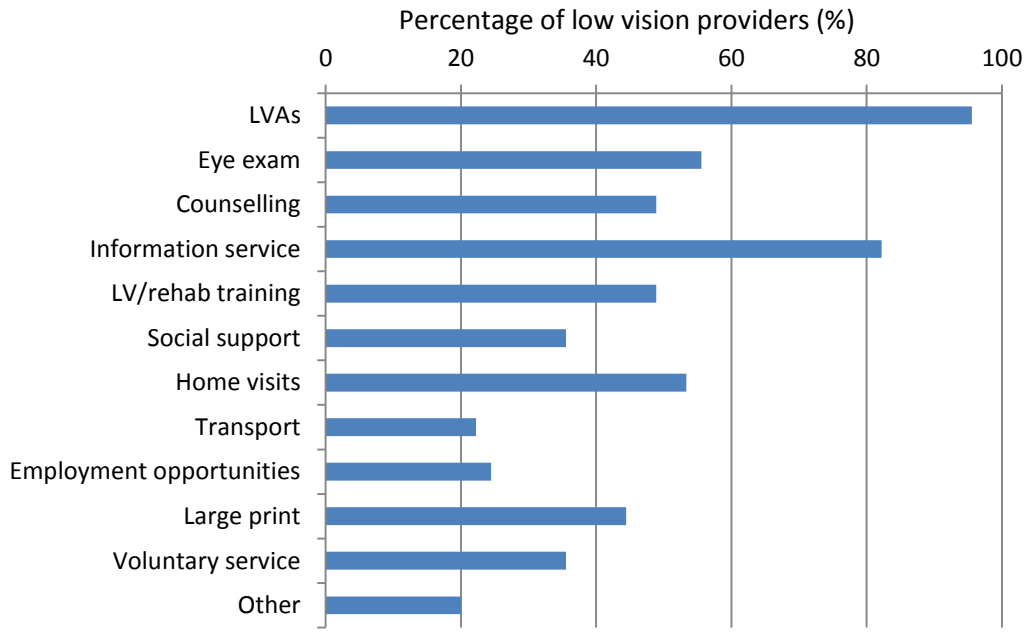

Figure 7: Services provided to people with low vision

3.8 Low vision aid provision

3.8.1 Cost of low vision aids to patient

As previously identified, the majority of services supply low vision aids (96%) to the patient. Of these, two thirds of the providers supply the aids free-of-charge (on a loan basis) to the patient. Low vision aids are provided free-of-charge by all hospital providers, local authority social services and community based optometry low vision schemes. About half of the local societies/charities (45%) provide aids free of charge and the majority of specialist teacher providers (80%). However, both the private optometry practices and the university eye department do not supply aids free-of-charge.

Of those providers who supply low vision aids free-of-charge, 20% (n=6) have a maximum policy on the number of aids provided to the patient. This included one local authority social services, two local societies/charities, one specialist teacher and two community based optometry low vision schemes.

3.8.2 Types of low vision aids

Figure 8 identifies the variety of the low vision aids provided across the services (n=43). Hand held magnifiers are common to all providers, and all other *optical* low vision aids available in over 70% of all the services.

High reading addition spectacles were available from all community optometry LV schemes, private optometrists and university eye clinic services – which are all optometrist led services. The hospitals also reported providing these in 75% of services. However, they were less frequently provided from the other services, maybe due to the lack of a prescribing optometrist.

Less than 50% of the providers reported offering lamps and electronic aids. Lamps are least likely to be provided by hospital (n=0) and community optometry LV schemes (n=1, 25%), and are more commonly provided by local societies/charities (n=7, 64%). Similarly, electronic aids are less likely to be provided by hospital services (n=2, 17%) and community optometry LV schemes (n=1, 25%), and more common within local authority/social services (n=3, 60%), specialist teachers (n=3, 60%) and local societies/charities (n=6, 55%).

Local authority social services and local societies/charities also provide a large proportion of non-optical devices, 100% and 91% respectively. These are not reported as provided in any of the hospital services.

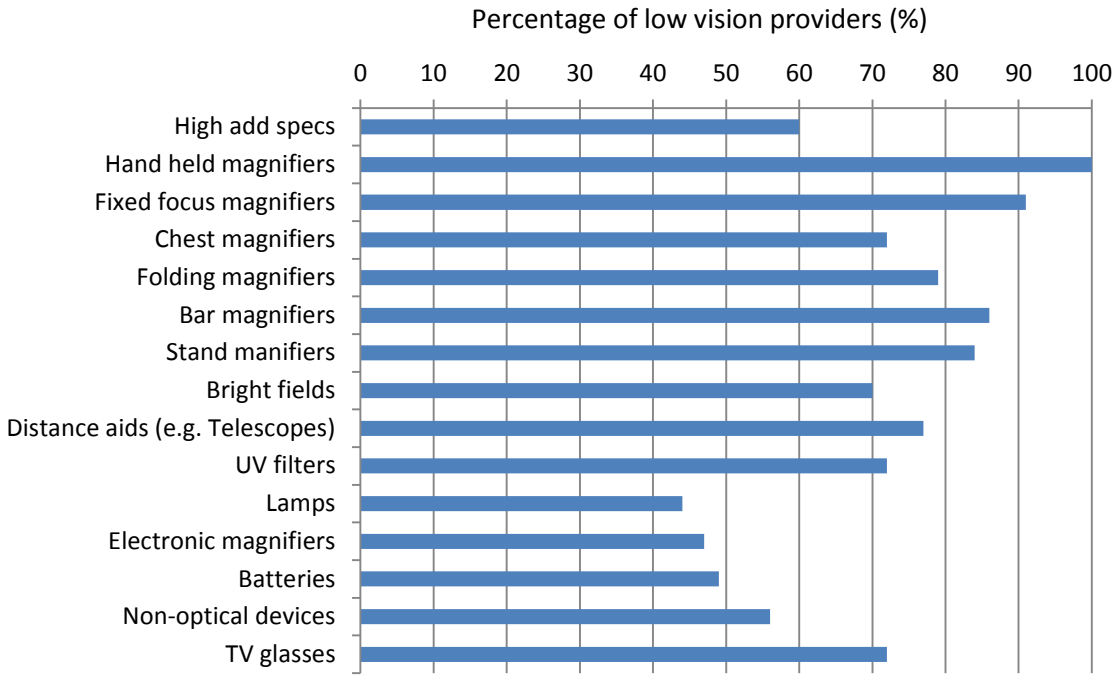

Figure 8: Percentage of different types of aids provided across all low vision providers in Scotland

3.9 Referral pathways

3.9.1 Referral routes into low vision service provision

Figure 9 identifies that there are a range of referral routes into low vision services. Self-referral is a common route for referral into a service, with only a proportion of hospital services (42%) and specialist teachers (40%) not reporting this as an option. Apart from the university eye clinic, which identified optometrist and self-referral as the only referral routes, all other referral routes were identified for a proportion of all other providers.

Percentage of low vision providers (%)

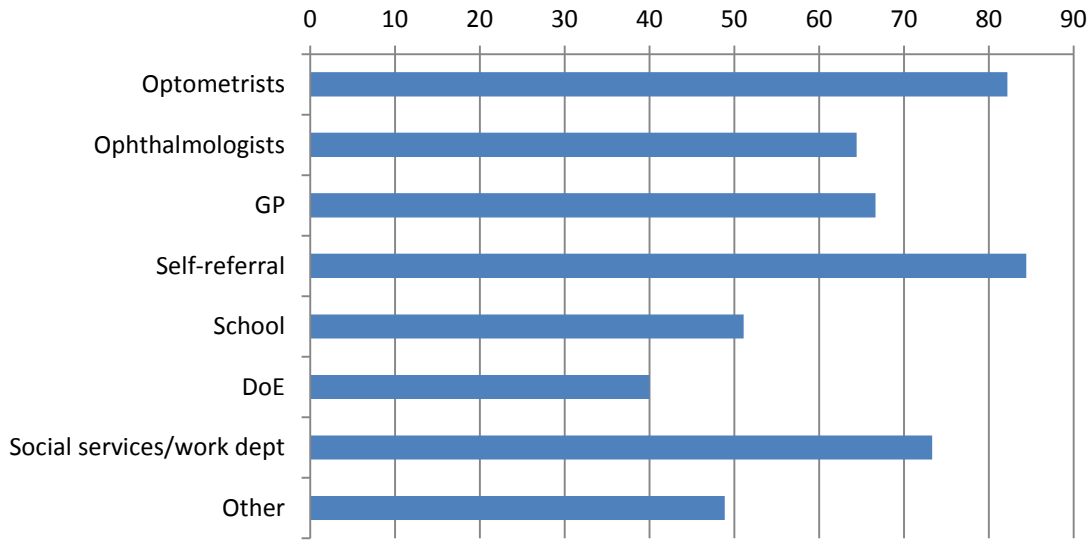

Figure 9: Referral routes for people with low vision into a service

3.9.2 Referral routes beyond the low vision assessment

Following a low vision assessment, figure 10 identifies that there are a range of possible referral routes.

Referral to low vision clinics was reported in the majority of local authority social services (80%), local societies/charities (82%) and specialist teachers (80%). Both local authority social services and local societies/charities also reported referral to the optometrist as a possible referral route in the majority of services, 80% and 82% respectively.

A proportion of all service providers reported referral to social services and local organisations as an option.

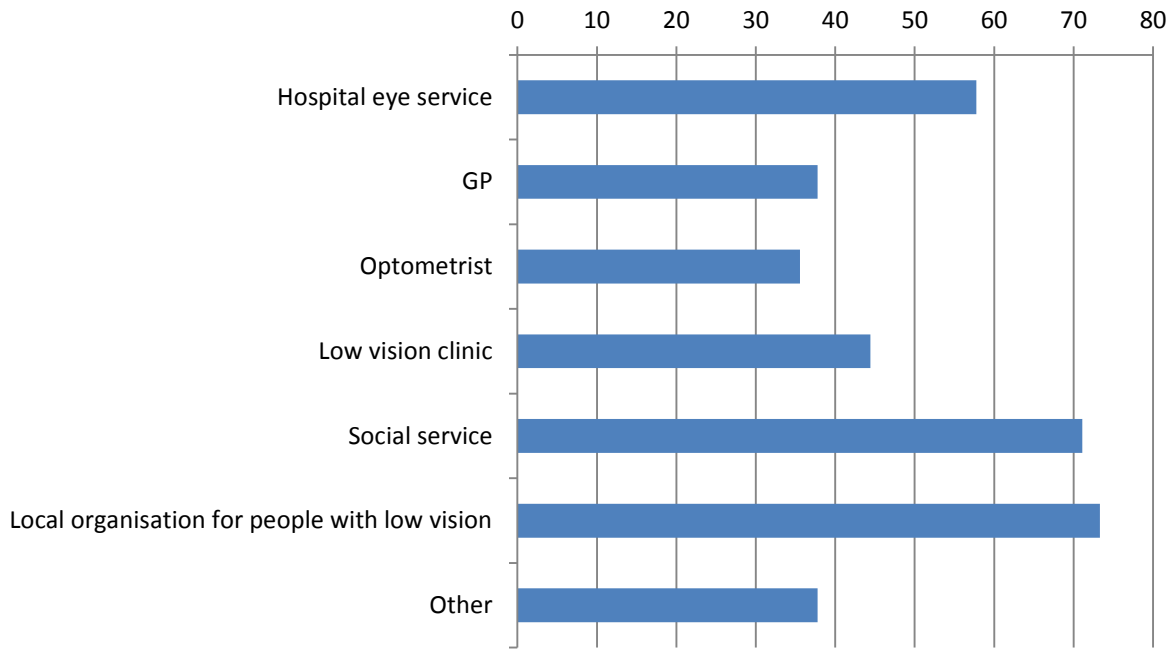

Figure 10: Referral routes following low vision assessment

3.10 Screening for depression

Five service providers (11%) screen for depression (hospital eye department n=1, private optometry practice n=1, local authority social services n=1, local society/charity n=1, community optometry low vision scheme n=1). Of these five services, only one screened for depression using a screening tool (local society/charity), however the provider was unable to identify the tool used.

Discussion

This is the most comprehensive review of low vision service provision across Scotland ever conducted. The study has identified a range of service types, however, there is little consistency in terms of distribution, content of service and coordination. Indeed, there appears to be a scarcity and under provision of services in many areas.

Given the high response rate it is likely that our data provides an accurate reflection of low vision services available across Scotland. As previously mentioned, specialist teacher information was difficult to identify, and as such this group are likely to be underestimated in this report. However, the number of children with low vision is small compared to the older population, and whilst children may benefit from the services identified in this review, they will also have a range of services available to them from birth. The growing demand for low vision services will arise mainly from the elderly population and future planning of services will need to primarily respond to this need.

This study has identified that within Scotland the majority of low vision services are provided by NHS funded hospital based clinics and community-based LV schemes, local societies/charities and local authority funded services.

4.1 Key message 1: Access to low vision services are inequitable across Scotland

Based upon the evidence collated in this review, future planning of services should consider patient access, in terms of both geographical location, waiting times and aids.

a. Geographical location of services

The mapping of services (figure. 3) indicates a scarcity of services in rural areas. There is a higher prevalence of older individuals in the rural areas, suggesting a higher proportion of people with low vision needs compared to the urban areas. Unfortunately, we know that older people are also significantly more likely to have additional physical and mental co-morbidities, compared to younger individuals. This can create significant barriers in terms of access to services if those services are far from a person's home. Many of the services do not provide transportation, and as such this may lead to patients unable to access services.

Local access to services has been identified as a core principle in the Primary Care Vision in the Modern Outpatient Programme (Scottish Government, 2016) and is further supported by recommendations in the See Hear Strategy (Scottish Government, 2014). This type of service design will reduce geographical barriers to timely patient care. Therefore, future planning must ensure that there is fair and equitable access for these people to low vision services.

b. Waiting times

The review has also identified that there is a variability of waiting times (for an initial appointment). Early provision of services is important to enable these individuals to retain the maximum amount of independence possible. The majority of individuals accessing these services are older, and are experiencing restriction in their everyday life, whether that be preparing food, reading bills or recognising people's faces. This can lead to deterioration in physical health and increase feelings of isolation. Encouragingly, all community optometry services reported providing appointments within 2 weeks, but waiting times in some of the other services were up to 6 months. For an elderly patient with other co-morbidities, 6 months is a considerably long time to wait.

Future planning needs to consider the importance of providing timely access for patients to services. This reaffirms the priority actions of the Scottish Vision Strategy to "ensure habilitation/rehabilitation are available as soon as necessary and reflect the needs of the individual (RNIB, 2013). Although relating to a different health condition, a good example of the impact of timely care upon patient outcomes can be seen in cases of Motor Neurone Disease. Timely care has been legislated for in cases of Motor Neurone Disease where services were often so slow in a very rapidly progressing condition that the patient was often dead before the aid was forthcoming. Although low vision may not be overtly so critical, the impact of delayed intervention for the patient can severely impede their ability to maintain independence and may compound the effects of other comorbidities. Consequently, this can lead to increased burden upon social care and other areas of the health service.

c. Low vision aids

The review identified that there is a lack of uniformity across (and within) service types concerning low vision aid provision. Of note, one third of services reported charging for aids.

4.2 Key message 2: The capacity of services is variable

In terms of future planning, consideration needs to be given to demand and current provision of services. There may well be workforce issues that need to be addressed.

The review identified a total of 45 services. However, three quarters of the current providers deliver 400 or less appointments per year, and over half (55%) provide less than 200. Of the 12 services which self-reported providing over 400+ appointments per year, the highest estimate of delivery was 1100 appointments per year (which was delivered by a community based LV scheme).

Although accurate estimates of people with low vision are unknown, we know that demand will continue to increase with an ageing population. Therefore, it is essential to consider how delivery capacity can be increased to meet patient need.

4.3 Key message 3: There is variability in service types/models

The review has identified that low vision services are being delivered via a variety of service types in Scotland. However, it is clear from the data that these services often integrate with each other and do not exist in isolation (3.9.2). Indeed, to provide a service which meets patient need, integration and patient pathways are required. It was beyond the scope of this review to analyse current integration, however it was surprising how many individuals were unaware of other service providers within their health board.

The See Hear document (Scottish Government, 2014) has identified the need to develop clear care pathways, which requires an integrated approach between service providers. This enables resources to be optimised and provides a more positive patient journey. Realistic Medicine (Scottish Government, 2017) encourages a reduction in unnecessary variation in practice and outcomes; patients should be able to access high quality low vision services across Scotland. Future planning needs to consider how services can be effectively integrated to allow the patient easy access to all the help they require.

4.4 Conclusions/future work

This review has identified that there is lack of uniformity of low vision services across Scotland. There is a scarcity in rural areas and inequality in terms of both waiting times and access to aids. To meet the needs of an ageing population, and to align with the See Hear strategy, future planning must consider how to provide equitable access to patients so that help is received in a timely manner.

Failure to respond to the current inequalities in service provision will potentially store up problems in other areas of the health service. This is largely an older population with a range of physical and mental comorbidities (Court et al., 2014). If a person is unable to manage their health condition due to low vision (e.g. unable to see medications, unable to take exercise or prepare healthy meals), their condition may deteriorate which may increase the burden on other primary, community or secondary care services.

The review has identified that there is a need to provide increased accessibility to services in rural areas. The results show that there are many different service types in Scotland, and consideration should be given to which of these can help meet this need. The review has identified specifically that the community based LV schemes have the ability to deliver high capacity over a wide geographical area, and also provide short waiting times.

It would be pertinent to consider the option of increasing the provision of such schemes across Scotland. Scotland has an extremely capable and highly trained

optometry workforce, who is well placed to provide services at a community level. Furthermore, there is strong evidence from Wales that a national community based LV scheme is an effective method of service delivery which delivers positive patient outcomes (Court et al., 2009, Court et al., 2010, Ryan et al., 2013, Ryan et al., 2010). This scheme embeds training for the eye care professionals and integrates patient-centred outcome measures to ensure a safe and quality service for patients. Importantly, such a service provides an easy access point for patients to low vision support, and a clear pathway and signposting to other service providers e.g. hospitals, social services and local societies/charities.

In conclusion, future planning requires policy makers to consider the current status of provision, and seek an evidenced-based solution which will improve the access and equality of low vision services to people in Scotland.

Acknowledgements

The authors wish to thank the following people:

Angela Bonomy (SG See Hear) for commissioning this review. Ms Joyce Luk for her assistance with geographical mapping and software. All members of the advisory board for their feedback at all stages of the design process. A special thank you to Dr Barbara Ryan for her direction and advice concerning methodology. Dr Janet Pooley, all OAs and See Hear colleagues who assisted in compiling a list of potential providers, and the Senior Postgraduate Tutors (NES) who provided feedback during the design stage. Finally, a big thank you to all the low vision providers who completed the questionnaire.

References

ABDELHAFIZ, A. H. & AUSTIN, C. A. 2003. Visual factors should be assessed in older people presenting with falls or hip fracture. Age Ageing, 32, 26-30.

BARNETT, K., MERCER, S. W., NORBURY, M., WATT, G., WYKE, S. & GUTHRIE, B. 2012. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. Lancet, 380, 37-43.

BIER, N. 1960. Correction of Subnormal Vision, London, Butterworths.

BLACK, A. & WOOD, J. 2005. Vision and falls. Clinical and experimental optometry: journal of the Australian Optometrical Association 88, 212-222.

COURT, H., MCCLEAN, G., GUTHRIE, B., MERCER, S. W. & SMITH, D. J. 2014. Visual impairment is associated with physical and mental comorbidities in older adults: a cross-sectional study. BMC Medicine, 12.

COURT, H., RYAN, B., BUNCE, C. & MARGRAIN, T. H. 2009. How effective is the new community based Welsh Low Vision Service? Cardiff University: WORD report.

COURT, H., RYAN, B., BUNCE, C. & MARGRAIN, T. H. 2010. How effective is the new community based Welsh Low Vision Service? British Journal of Ophthalmology, 95, 178-184.

CULHAM, L. E., RYAN, B., JACKSON, A. J., HILL, A. R., JONES, B., MILES, C., YOUNG, J. A., BUNCE, C. & BIRD, A. C. 2002. Low vision services for vision rehabilitation in the United Kingdom. British Journal of Ophthalmology, 86, 743-747.

HAYMES, S. A., JOHNSTON, A. W. & HEYES, A. D. 2002. Relationship between vision impairment and ability to perform activities of daily living Ophthalmic and Physiological Optics, 22, 79-91.

HMSO. 1948. London.

IVERS, R. Q., CUMMING, R. G., MITCHELL, P., SIMPSON, J. M. & PEDUTO, A. J. 2003. Visual risk factors for hip fracture in older people. Journal of the American Geriatrics Society, 51, 356-363.

LOW VISION CONCENSUS GROUP. 1999. London: RNIB.

MARENGONI, A., ANGLEMAN, S., MELIS, R., MANGIALASCHE, F., KARP, A., GARMAN, A., MEINOW, B. & FRATIGLIONI, L. 2011. Aging with multimorbidity: a systematic review of the literature. Ageing Research Reviews 10, 430-439.

NATIONAL RECORDS OF SCOTLAND. 2015. Projected Population of Scotland (2014-based) National population projections by sex and age, with UK comparisons.

RAHI, J. S. & CABLE, N. 2003. Severe visual impairment and blindness in children in the UK. The Lancet 362, 1359-1365.

REEVES, B., HARPER, R. A. & RUSSELL, W. B. 2004. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology, 88, 1443-1449.

RNIB. 2013. Scottish Vision Strategy (2013-2018).

RYAN, B., KHADKA, J., BUNCE, C. & COURT, H. 2013. Effectiveness of the community-based Low Vision Service Wales: a long-term outcome study. Br J Ophthalmol, 97, 487-91.

RYAN, B., WHITE, S., WILD, J. M., COURT, H. & MARGRAIN, T. H. 2010. The newly established primary based Welsh Low Vision Service is effective and has improved assess to low vision services in Wales. Ophthalmic and Physiological Optics, 30, 358-364.

SCHWARTZ, S., SEGAL, O., BARKANA, Y., SCHWESIG, R., AVNI, I. & MORAD, Y. 2005. The effect of cataract surgery on postural control. Investigative ophthalmology & visual science, 46, 920-924.

SCOTTISH GOVERNMENT. 2014. SEE HEAR: A strategic framework for meeting the needs of people with a sensory impairment in Scotland.

SCOTTISH GOVERNMENT. 2016. The Modern Outpatient:A Collaborative Approach 2017-2020.

SCOTTISH GOVERNMENT. 2017. Chief Medical Officer for Scotland Annual Report 2015/16 Realising Realistic Medicine.

SILVER, J. & THOMSITT, J. 1977. Low-vision services in the United Kingdom. Health Trends, 9, 73-75.

STUCK, A., WALTHERT, J., NIKOLAS, T., BULA, C. J., HOHMANN, C. & BECK, J. C. 1999. Risk factors for functional status decline in community-living elderly people: a systematic literature review Social Science & Medicine, 48, 445-469.

THE COLLEGE OF OPTOMETRISTS. 2013. Commissioning better eye care: Clinical commissioning guidance from The College of Optometrists and The Royal College of Ophthalmologists.

VU, H. T. V., KEEFFE, J. E., MCCARTY, C. A. & TAYLOR, H. R. 2005. Impact of unilateral and bilateral vision loss on quality of life British Journal of Ophthalmology, 89, 360-363.

Appendix

Telephone survey scoping current provision of low vision care in Scotland

Survey code:

Date of telephone interview:

Organisation name:

Organisation type:

1. Hospitals with eye departments
2. Optometry practices
3. Local authority social services
4. Local societies/charities for people with VI
5. Specialist teachers
6. Glasgow Caledonian University Optometry department

Contact name:

Address:

Telephone number:

Email address:

Questions:

1. **Do you provide a low vision service in your area?**

1. YES	2. NO

If the answer is no, there is no need to continue with survey

2. **What kind of service do you provide?**

1. Sell only	
2. Other	

3. **How many people do you see each year for:**

a. Initial assessment	
1. 0-10	
2. 11-25	
3. 25-50	
4. 51-100	
5. 101-200	
6. 200+	
7. Don't know	
8. No answer	

If 200 + probe for number seen----------

b. Follow up assessment	
1. 0-10	
2. 11-25	
3. 26-50	
4. 51- 100	
5. 101-200	
6. 200+	
7. Don't know	
8. No answer	

If 200+ probe for number seen----------

4. **What was your annual spend last year on low vision aids?**

5. Who provides the low vision service in your organisation?

Options		Answers
1.	Optometrist(s)	
2.	Ophthalmologist(s)	
3.	Counsellor(s)	
4.	Nurse(s)	
5.	Medical social worker(s)	
6.	Orthoptist(s)	
7.	Rehabilitation worker(s)	
8.	Social worker(s)	
9.	Specialist Teacher(s)	
10.	Other	

6. After you receive the initial enquiry, how long do people wait for their first low vision assessment?

1. Less than 2 weeks	
2. 2 weeks – 2 months	
3. 2 months – 6 months	
4. 6 months – 1 year	
5. 1 year plus	
6. Don’t know	
7. No answer	

7. Which authority or agency is the main funder of your low vision service?

_____

1. NHS Hospital contract	
2. NHS separate contract	
3. NHS GOC	
4. NHS GOS	
5. NHS- other	
6. NHS- Don't know	
7. Social services/work department	
8. Voluntary sector	
9. Private	
10. School	
11. Department of education	
12. Department of employment	
13. Other	
14. Don't know	
15. No answer	

8. Please indicate which of the following services you provide to people with low vision?

Options	**Answers**
1. Optical low vision aids	
2. Non- optical low vision aids	
3. Ophthalmological eye examination	
4. Optometric eye examination	
5. Counselling	
6. Information service	
7. Specialised low vision training	
8. Rehabilitation training	
9. Social support	
10. Home visits	
11. Transportation service	
12. Employment opportunities	
13. Large print	
14. Volunteer service	
15. Other	

9. What types of aids are provided by the service?

Options	**Answers**
1. High add specs	
2. Hand held non illuminated magnifiers	
3. Hand held illuminated magnifiers	
4. Fixed focus magnifiers	

5. Chest magnifiers	
6. Folding magnifiers	
7. Bar magnifiers	
8. Stand magnifiers	
9. Illuminated stand magnifiers	
10. Bright fields	
11. Distance aids (e.g. Telescopes)	
12. UV Filters	
13. Lamps	
14. Electronic magnifiers	
15. Batteries	
16. Non–optical devices(e.g. clip boards, coloured overlays, typoscopes, reading stands)	
17. TV distance glasses	

10. Does the service provide aids free of charge to the patient/client?

1. Yes	2. No

11. Do you have a policy on the maximum number of aids supplied per person?

1. Yes	2. No

12. Who refers people with low vision into your service?

Options	Answers
1. Optometrists	
2. Ophthalmologists	
3. GP	
4. Self- referral	
5. School	
6. Department of education	
7. Social services / Work department	
8. Other	

13. Where do you refer people to, once they have been seen at your low vision service?

Options	Answers
1. Referral to HES	
2. Referral to GP	
3. Optometrist	
4. Low vision clinics	
5. Social services	

6. Local organisations for people with low vision	
7. Other	

14. Do you provide services to people with low vision outside your establishment?

Options	Answers
1. Home	
2. School	
3. Place of work	
4. Other	

15. A. Do you screen for depression?

Options	Answers
1. Yes	
2. No	

B. If yes, do you use a screening tool?

Options	Answers
1. Yes	
2. No	

C. If yes, what is the name of the screening tool?

Thank you for taking the time to answer this survey

This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at
The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-78652-921-3 (web only)

Published by The Scottish Government, April 2017

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS264394 (04/17)