

Demonstrating the impact and value of vision rehabilitation

A report to RNIB

August 2017

OPM Group	Demonstrating the impact and value of vision rehabilitation
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Glossary of terms used in this report

Vision rehabilitation: Vision rehabilitation is a social care service offered by local authorities in England to blind and partially sighted people to assist them to remain independent. Vision rehabilitation is carried out by trained rehabilitation workers who work directly with individuals to assess their needs and, subsequently, develop and deliver a bespoke programme of training in skills and coping strategies; the rehabilitation is usually carried out in the blind or partially sighted person's own home.

Rehabilitation worker: Rehabilitation workers who work in vision rehabilitation are specialists in enabling people who are blind or partially sighted to be as independent as possible in their day to day lives. They are trained to respond to a person's unique and complex situation and to find solutions that will work well for them. The role usually requires a foundation degree in Rehabilitation Work (Visual Impairment) which may also be referred to as a Diploma of Higher Education in Rehabilitation Studies.

Initial assessment: Vision rehabilitation services receive client referrals through a number of pathways. Once a client has been referred into the service, rehabilitation workers generally conduct an initial assessment of a client's individual circumstances and needs to ensure that vision rehabilitation is right for them; book in a time to visit the client for a more extensive assessment of their circumstances and needs; and signpost or refer them to other relevant services as soon as possible.

Specialist assessment: In general, vision rehabilitation services will also conduct a more extensive assessment of a client's needs after the initial assessment; this is usually conducted face-to-face. Different vision rehabilitation services however conduct initial and more extensive assessments in different ways dependent on their operating model and

¹ https://rnib.org.uk/

² https://www.sightforsurrey.org.uk

context and some use the more extensive assessment as an opportunity to begin providing immediate advice and support to the client rather than using the time purely to assess needs to be addressed at a later stage.

For the purposes of this study, the term 'specialist assessment' refers to the more extensive assessment that a rehabilitation worker conducts with a client face-to-face after the initial assessment. In this usage of the term, the purpose of a specialist assessment is to understand the client's individual learning and support needs in detail; begin to introduce and discuss solutions that will be part of the client's rehabilitation plan; and, where applicable, provide immediate advice or equipment to assist with daily living tasks. This understanding of a specialist assessment comes from our work with the Sight for Surrey vision rehabilitation service, which was chosen as the case study site.

Rehabilitation plan: At every stage of the vision rehabilitation journey, the client should know what will happen, what is happening next, when and why. The rehabilitation worker will discuss this plan for their rehabilitation with the client at each stage. The rehabilitation plan may be written or verbal.

In-depth rehabilitation: For the purposes of this study the term 'in-depth rehabilitation' is used to refer to a programme of rehabilitation offered to the client after their specialist assessment has been completed. In-depth rehabilitation may include mobility, daily living skills, or communication training among other things, and could involve one or multiple visits over a period of time dependent on the individual client's needs.

Outcome: Outcomes are the changes, benefits, learning or other effects that happen as a result of a project or organisation's work.³

Impact: Impacts are the broader or longer-term effects of a project or organisation's work. This can include effects on people who are direct users, effects on those who are not direct users, or effects on a wider field such as government policy or budgets.⁴

³ https://knowhownonprofit.org/organisation/impact/about-impact-and-evaluation/understanding-the-language

⁴ https://knowhownonprofit.org/organisation/impact/about-impact-and-evaluation/understanding-the-language

Executive Summary

Introduction

This is the executive summary of the Office for Public Management (OPM) study to assess the impact and value of vision rehabilitation services in England. RNIB commissioned the research in 2016-17 to begin to address a significant gap in evidence around the effectiveness and financial costs and benefits of vision rehabilitation services which fall under the statutory responsibility of local authorities.

Vision rehabilitation services support independent living for people who have experienced sight loss or deterioration, or who have been blind or partially sighted since birth or childhood. These services are currently experiencing significant pressure including reductions in health and social care budgets and the increasing needs of an ageing population.

Our study is an economic assessment performed using a methodology informed by HM Treasury guidelines for economic assessment and evaluation. We took a cost-avoidance analysis approach using primary evidence from a case study vision rehabilitation service in England – run by Sight for Surrey, a charitable organisation that delivers specialist services to people who have vision impairment, are deaf or hard of hearing, or have combined sight and hearing loss. The approach also drew on secondary literature searches in order to ensure substantial depth and rigour in addressing the gaps in the existing evidence about the impact of vision rehabilitation.

Our investigation systematically focussed on the following four areas:

- Mapping the vision rehabilitation process
- Calculating the costs of the vision rehabilitation model
- Identifying the outcomes of vision rehabilitation for Sight for Surrey service users, their families and informal carers
- Calculating the costs avoided, reduced or deferred as a result of the vision rehabilitation service, both for the health and social care system and for individual service users (and their families and informal carers)

Key Findings

Our findings suggest that vision rehabilitation services not only contribute to meeting a set of needs experienced by people with a vision impairment but that the financial value resulting from these services (in the form of costs avoided, reduced or deferred) may significantly outweigh the financial costs of delivering the services for the health and social care sector.

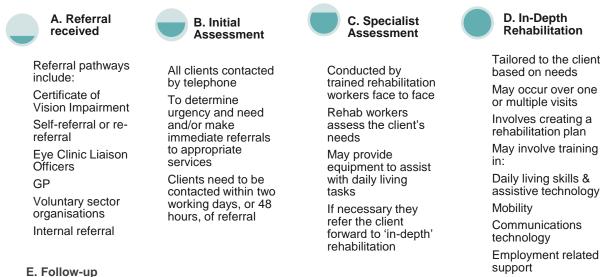
Mapping the vision rehabilitation process

Whether provided by a team within a local authority or contracted to a community sector service provider, vision rehabilitation services are typically staffed by a mix of management staff, rehabilitation workers and administrators who work together to provide the different elements of vision rehabilitation.

Our research identified five stages that are characteristic of vision rehabilitation service models. These are:

- **A. Referral stage:** The service receives a referral for a new service user from an external agency or provider, the client themselves, or staff within the service itself.
- **B.** Initial assessment: Service staff conduct an initial assessment of the service user to determine their needs. The service user needs to be contacted within two working days of CVI or self-referral.
- **C. Specialist assessment:** A trained rehabilitation worker conducts a face-to-face assessment of the service user's needs, usually in his or her own home and begins to create and deliver a bespoke rehabilitation plan to assist them with living independently. This may include the provision of equipment to make daily tasks simpler and safer as well as making onward referrals to external services.
- **D. In-depth rehabilitation**: If a service user has needs not met in the specialist assessment their tailored rehabilitation plan may involve a longer programme of rehabilitation or training sessions, normally conducted in their own homes. This may involve guidance in daily living skills, assistive technology, mobility or communication.
- **E.** Follow-up: Once a service user has completed their rehabilitation plan with the service, staff may get back in touch after a set period of time to confirm their progress.

The diagram below lays out the five key stages of the vision rehabilitation process.



Some services contact people a set period of time after they have left the vision rehabilitation service to ensure their needs have been met

Not all vision rehabilitation service users will necessarily experience all the key stages during their vision rehabilitation experience; it will depend upon their individual needs and the appropriateness of the service for them. Vision rehabilitation teams make referrals to other relevant services during any of the stages of the vision rehabilitation process therefore, clients may leave the service after any of the stages, once their needs are met.

Service users may also leave the service because they do not feel ready to engage, for example if their sight loss was recent and they have not yet come to terms with it; or they disengage for reasons unknown to the service.

Calculating costs of vision rehabilitation

The total cost of the Sight for Surrey vision rehabilitation service in 2015/16 was £918,034*; which is a cost of £1,300 per referral

*The methodology used to calculate the costs associated with Sight for Surrey's vision rehabilitation service generated a minimum to maximum range of the cost to deliver the service in 2015/16. This figure is the midpoint of that range: £739,364 to £1,096,703.

Staff-related costs outweigh non-staff costs in the Sight for Surrey service model. The breakdown of costs shown in the table below (and in more detail in Section 4 of the main report), demonstrate that the most significant amount of resource is being channelled into the in-depth rehabilitation stage of vision rehabilitation i.e. 63% of all staff-related costs or 49.2% of total calculated costs for the service.

In 2015/16 a total of 702 clients received a specialist assessment. Fewer clients went on to the in-depth rehabilitation stage. Data was not available on the number of clients that go on

to receive in-depth rehabilitation⁵ however it is known that a total of 284 in-depth rehabilitation referrals were made into in-depth rehabilitation in 2015/16. This figure of 284 represents a referral into a specific type of rehabilitation (e.g. daily living skills; mobility training; braille) and not the number of individuals referred. The same individual could be referred to more than one type of rehabilitation. Therefore, the number of individuals receiving in-depth rehabilitation visits was less than or equal to 284.

At just under 20%, overheads are also a significant proportion of the costs associated with the case study service model.

Staff related expenses	Percentage of staff costs	Percentage of total cost
A. Referrals handling	0.7%	0.5%
B. Initial assessment	1.9%	1.5%
C. Pre-assessment	1.2%	0.9%
D. Specialist assessment	24.4%	19.0%
E. In-depth rehabilitation	63.0%	49.2%
F. Follow up	0.8%	0.6%
Management tasks: Including complex case supervision; service strategy, policy, process guidance; and all staff team meetings	7.0%	5.5%
Issuing equipment	1.1%	0.8%
SUB-TOTAL - Staff costs ⁶	100%	78%
Non-staff expenses	Percentage of non-staff costs	Percentage of total cost
Cost of equipment ⁷	11.9%	2.6%
Travel expenses	8.5%	1.9%
Overheads Including rent, HR, IT hardware and support, etc.	79.6%	17.4%
SUB-TOTAL - Non-staff costs	100%	22%

Identifying outcomes of vision rehabilitation

We identified four key areas of impact for vision rehabilitation clients and one area of impact for the family and informal carers of service users. These encompass improvements in relation to:

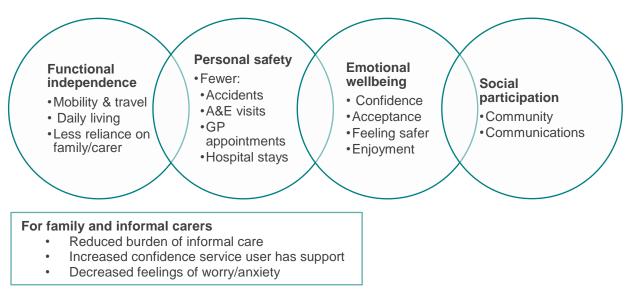
⁵ Sight for Surrey's record keeping system counts referrals from specialist assessment to different strands of indepth rehabilitation, not the number of individuals that are referred. Refer to Section 4.1 for more detail on Sight for Surrey's approach to in-depth rehabilitation and therefore how these calculations were made.

⁶ Totals are rounded to the nearest percentage and therefore contain some rounding error.

⁷ This includes only costs borne by Sight for Surrey and not those paid by service users.

- 1. Functional independence
- 2. Personal safety
- 3. Emotional wellbeing
- 4. Social participation
- 5. Outcomes for families and informal carers related to reduced anxiety and burden of informal care

Together, these five areas of impact encompass 16 specific direct outcomes that occur as a result of vision rehabilitation interventions. The impact areas and 16 specific outcomes are summarised in the diagram below and laid out in full in Section 4 of the main report.



The above impact areas were uncovered through primary research with Sight for Surrey professionals and service users. However, wider evidence suggests that these types of outcomes are likely to be common for vision rehabilitation services more generally. In particular, Rabiee et al⁸ collated evidence from a number of US-based studies to find that the two most prominent areas in which vision rehabilitation services are effective are: helping clients to accomplish daily tasks and to adjust emotionally to vision loss.

Taking research on reablement services as a proxy for vision rehabilitation, we can also be assured that the functional independence and personal safety outcomes we heard about in interviews are accepted outcomes of reablement services that aim to 'reduce the number of care hours required to support a person at home or develop their independence so that they can remain in their own home instead of being admitted to residential or nursing care¹⁹.

⁸ Rabiee, et al. 2015.

⁹ Francis, Fisher & Rutter. 2014.

Costs avoided, reduced or deferred due to vision rehabilitation services

If the outcomes identified for the Sight for Surrey vision rehabilitation model hold true for just 10% of people who are likely to experience those outcomes, the total value of costs avoided, reduced or deferred is **£3,423,844** in the year 2015/16.

These avoided costs are split by impact area in the table below and explored in detail in Section 4 of the main report.

Impact area	Potential financial benefit based on a conservative percentile approach (2015/16 year) ¹⁰ Rounded to nearest £
Increased functional independence	£2,860,860
Increased personal safety	£153,237
Improved emotional wellbeing	£85,330
Improved social participation	£73,839
Outcomes for family/carers	£250,579
TOTAL ¹¹	£3,423,844

The total figure for costs avoided, reduced or deferred is high-level and multi-layered; we have therefore further broken it down into avoided costs (or positive value generated) for:

- The health and social care systems
- Service users, their families and carers.

Most of the potential value resulting from the Sight for Surrey outcomes that we have identified pertains to costs avoided, reduced or deferred in the health and social care systems, with some 'softer' outcomes having value generated or costs saved primarily by the service user.

¹⁰ The figures in Table 6 are drawn from conservative calculations of the value of costs avoided in each impact area generated using a percentile approach with the assumption that just 10% of service users likely to experience an outcome actually experience it. The technical appendix to this report includes scenarios based on less conservative calculations where, for example, 25%, 50%, 75% and 100% of service users likely to experience an outcome actually experience it.

¹¹ Figures have been rounded to the nearest whole number, therefore totals may have rounding errors.

The avoided, reduced or deferred costs that may be experienced in the health and social care systems as a result of the Sight for Surrey vision rehabilitation service total: £3,168,022 (in the year 2015/16).

The avoided, reduced or deferred costs (and value generated) that may be experienced by service users, their families and carers as a result of the Sight for Surrey vision rehabilitation service total: £255,823 (in the year 2015/16).

Recommendations for further research

This research makes an early contribution to an evidence base that is currently sparse in the specific field of vision rehabilitation. The methodology was chosen due to the need for a robust yet pragmatic approach in the context of the paucity of existing robust evidence. Our approach means that we can be confident that the findings can be plausibly applicable to vision rehabilitation services more widely than the case study site that was the basis for the research.

However, further research is necessary to continue to address the current gap in evidence. For example, further studies that look at a range of different types of vision rehabilitation service providers and models of delivery could strengthen and build upon the evidence presented here.

Vision rehabilitation services might also be encouraged and supported to develop more robust monitoring data collection mechanisms so that research can be more easily carried out across this specialist service area.

1. Introduction

Losing some or all your sight can be overwhelming and difficult, whether it happens suddenly or gradually. Everyday tasks like making a cup of tea, using a microwave, reading the mail, or crossing a road can seem daunting and people might worry about their ability to continue living independently, maintain a social life, or retain or find new employment. People who have been blind or partially sighted from birth or childhood also experience difficulties with living independently which may evolve as they move through life stages and may include issues with accessing employment or keeping up with advances in vision impairment aids and technology.^{12,13}

Councils in England commission and/or provide vision rehabilitation services to people who have experienced sight loss or deterioration, or who have been blind or partially sighted since birth or childhood, to help address some of these difficulties. Vision rehabilitation aims to help people adapt to their vision impairment through providing training in daily living skills, mobility, and communications, and supporting them to feel more confident and independent. However, vision rehabilitation services are under significant pressure due to increasing demands on health and social care budgets. RNIB research found that between 2009/10 and 2014/15 over half of all local authorities in England reduced their budgets for services for blind and partially sighted people and that the average reduction was 15% over the five-year period.¹⁴

There is little robust evidence around the effectiveness and the financial costs and benefits of vision rehabilitation. To begin to address this significant gap in the research and to inform future provision, RNIB commissioned OPM to carry out an assessment of the costs and benefits of vision rehabilitation services. Our approach is based on an economic assessment technique called cost-avoidance analysis (which is outlined in the methodology section) using evidence from a case study of a vision rehabilitation service in England – run by Sight for Surrey – and, where necessary, published studies on the impact of vision rehabilitation and other comparable services such as reablement.

1.1 Reading this report

This report presents the methodology and findings from our research. The report is organised into the following sections:

Section 1: Introduction – Introducing the background and context.

¹² RNIB (2015) My Voice: The views and experiences of blind and partially sighted people in the UK: John Slade and Rose Edwards: RNIB.

¹³ RNIB (2016) 10 Principles of Good Practice in Vision Rehabilitation

¹⁴ From RNIB Freedom of Information research

Section 2: Methodology – This section lays out the principles underpinning our approach, the process of carrying out the research, and the data collection methods used to do so.

Section 3: Understanding vision rehabilitation – This section lays out the key components of a vision rehabilitation service including the activities involved at each stage. It also introduces the case study site that was used as the basis for this piece of work.

Section 4: Findings – This section discusses the findings of the work, separated into three key areas: the cost of vision rehabilitation; the impact of vision rehabilitation; and valuing outcomes in monetary terms.

Section 5: Conclusions – This section summarises the key findings and lays out recommendations for further research.

2. Methodology

2.1 Principles underpinning our approach

Economic assessments are fundamentally about telling the story of economic cost and impact. A coherent economic impact story needs to combine not only monetised evidence, but also quantitative (non-monetised) and qualitative (descriptive and theoretical) evidence. Our methodology follows the principles set out in the *Magenta Book*¹⁵ and the *Green Book*¹⁶, both published by HM Treasury. The former sets out standards for conducting evaluations, while the latter sets out the procedures and standards around economic appraisals.

HM Treasury guidance sets out the following prompts to be considered for an economic assessment:

- What are the direct and indirect resources¹⁷ involved in implementing an intervention i.e. what is the 'true economic cost' of the intervention?
- Where do these fall i.e. who incurs what costs?

¹⁵ HM Treasury (2011) The Magenta Book: Guidance for Evaluation, London: HM Treasury. (This used to be published by the Cabinet Office). Available from: <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/179379/magenta_book_combined_pdf.pdf</u>

¹⁶ HM Treasury (2003) *The Green Book: Appraisal and Evaluation in Central Government.* London: HM Treasury.

¹⁷ An indirect cost is one which is incurred by an individual or an organisation unrelated to an intervention as a result of the activities/outputs produced by those delivering an intervention. For example, a successful information and advice service can lead to increased contacts made by those using the information service to other agencies. This increases the workload of other agencies who have to resource this; thereby contributing to the success of the information and advice service. These inputs are usually 'in-kind' and not enacted as direct financial transactions.

• Can benefits be attributed to the intervention, or what proportion of the benefit can be explained by the intervention? – i.e. was it the intervention and not some other factor that directly brought about the benefits?

• What benefits are brought about by the intervention, both tangible and intangible, and where do these accrue? – i.e. who benefits from what?

- Has the principle of 'additionality' been applied to both costs and benefits¹⁸?
- Has there been adequate accounting for potential optimism bias¹⁹ and sensitivity analysis²⁰?

The following approaches underpinned the design of this work:

- A bottom-up approach to understanding the costs and benefits of vision rehabilitation to begin to address gaps in the available literature.
- A case-study based design to ensure the research is based on a real-life scenario.

• An assessment of similarities and differences between the case study site and generic approaches to vision rehabilitation to ensure we can draw meaningful and relevant conclusions.

• A systematic approach to identifying both the costs and benefits.

• A robust and auditable approach to assigning financial value to outcomes, including identifying appropriate financial proxies where direct market values for outcomes are not available.

- A transparent approach to calculations and underlying assumptions.
- Interview techniques that aim to uncover the extent to which outcomes can be attributed to the vision rehabilitation service (as opposed to other things).

In choosing a bottom-up case study approach, we ensured that we were able to drill down at depth into some of the gaps in existing evidence using both primary and secondary research, and quantitative and qualitative data.

¹⁸ The principle of 'additionality' is fundamental to economic assessments. This means that we need to be sure that we are calculating costs in relation to the cost that would have been incurred in the absence of the intervention. A number of assumptions need to be made (and subsequently tested through primary research), including (a) that there has not been any re-allocation of non-intervention resources away from other forms of related (but non-intervention) activities; (b) that all identified intervention resources are in fact allocated to the intervention specifically; and (c) that in instances where intervention resources have been used on non-intervention activities, there has not been any reallocation of other non-intervention resources away from such activities.

¹⁹ This encourages us to be aware of the risk of over-claiming benefits.

²⁰ This means exploring or testing whether a finding holds true when the underpinning assumptions or financial values used are modified within a reported range.

2.2 The economic assessment technique

All economic assessments require the establishment of costs and benefits, however there are a number of different ways of doing this and different techniques are used for different purposes in different contexts.

Our approach to identifying the impacts and value of vision rehabilitation services drew on a technique called cost-avoidance analysis. Unlike most other economic assessment approaches, cost-avoidance analysis does not require analysis of the specific positive outcomes achieved by a service or intervention in a way that other approaches do. Instead, cost-avoidance analysis involves looking at the positive benefits of a service from the perspective of the negative outcomes that are avoided when those positive benefits are achieved. For example, if a service or intervention results in improved wellbeing for service users, some economic analysis approaches would require the measurement of wellbeing. A cost-avoidance approach on the other hand poses the question of what would not achieving positive wellbeing look like, especially in relation to the costs involved in managing and treating the effects that arise from the absence of positive wellbeing. It therefore makes the argument that by achieving positive wellbeing, we have helped to avoid the costs involved in having to deal with its absence.

This approach is well-suited to preventative interventions or those that generate abstract, high-level outcomes that may be difficult to measure. It is important to note however that there is a difference between cost avoidance and cost savings, and the two should not be confused. Cost avoidance does not change current spending, but is about making the case that, had the intervention not been in place, the level of spending would have been higher. Cost avoidance analysis seeks to demonstrate that an intervention can help to contain and control cost increase, thereby potentially creating cost savings over time.

2.3 The process

The stages of our methodology are outlined below and in Figure 1.

Mapping the vision rehabilitation process

We started by mapping the vision rehabilitation process to understand what such a service typically entails, then we documented the Sight for Surrey model of vision rehabilitation to understand the extent to which the service matches the generic vision rehabilitation map we had developed. See Chapter 3 for further detail about this stage.

Calculating costs

Next, we calculated the costs involved in delivering the Sight for Surrey vision rehabilitation service through a combination of reviewing data available from the case study site and

interviews with professionals to better understand the time they spend on each aspect of the service. See section 4.1 for further detail about this stage.

Identifying outcomes

Alongside the identification of costs of service delivery, we also identified the outcomes experienced by service users as a result of the vision rehabilitation service. This included interviews with service users and professionals, followed by qualitative analysis to draw out the key themes in types of outcomes. Based on this primary research we then assigned measurable indicators to each of these outcomes.

We reviewed the available published literature to identify secondary evidence that might support or challenge the outcomes we had identified through primary research. This ensured greater confidence that these outcomes are plausibly generated by vision rehabilitation services more generally, rather than only in the case study site. The literature review also enabled us to sense-check whether we had defined specific outcomes appropriately under the broader categories we identified.

See section 4.2 for further detail.

Assigning financial values to outcomes

Using the available robust and authoritative literature we then assigned financial values to the identified outcomes. Where direct market values do not exist, we relied on published proxies from authoritative sources to ensure that, as far as possible, the evidence used in this research and the conclusions we have arrived at are robust within the constraints of available evidence. This technique is known as 'benefit transfer' and is common in economic assessments where primary monetisation, particularly of outcomes, may be unfeasible.

As part of this process we also looked to the published evidence for any indication of likely 'effect size' (i.e. what proportion of a service beneficiary population is likely to experience that specific outcome). This then allowed us to estimate the size of that outcome in terms of financial value, as applied to the Sight for Surrey cohort. See section 4.3 for further detail about this stage.



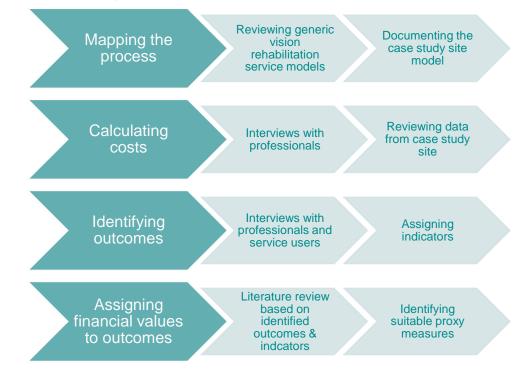


Figure 1: OPM methodology for economic analysis of vision rehabilitation services.

2.4 Data collection methods

The case study was supported by the following data collection methods.

Data review based on a sample of Sight for Surrey service users

Two sub-samples of Sight for Surrey service users were identified through stratified random sampling, based on a set of agreed criteria. Sight for Surrey provided quantitative and qualitative data for each individual in the sub-samples including information about the support they had received and demographic information about themselves and their eye condition.

This information was used to a) develop the process map of vision rehabilitation services, b) provide indicative quantitative data about the time, equipment and other resources involved in providing such a service and c) inform the topic guides for interviews with both service users and professionals. The two sub-samples are described below:

Group 1: Service users of different age ranges receiving in-depth rehabilitation

• A sub-sample of 20 was drawn from the approximately 100 individuals receiving in-depth rehabilitation services from Sight for Surrey following the specialist assessment. The sub-sample was selected to ensure there were service users aged both 65 and older and service users aged below 65. These age categories were chosen to enable us to identify whether different outcomes were experienced by those within the older cohort and those of working age whose life contexts, responsibilities and support networks may differ considerably.

Group 2: Service users having received equipment

• A second sub-sample of 25 consisted of service users who received equipment as a result of the specialist assessment (but were not referred on to further in-depth rehabilitation) drawn from a pool of approximately 330 individuals²¹. This sub-sample allowed an exploration of how outcomes may be different for service users who received equipment without more in-depth rehabilitation support; how different forms of equipment contributed to outcomes; and how the costs of different equipment were met, for example, in what circumstances the service user contributed to the cost.

In practice, most service users in the Group 1 sample also received equipment, and those in the Group 2 would also have received some training and emotional support during their specialist assessment in addition to equipment. Although the distinction between the two groups is not clear-cut, the sub-sampling approach allowed for a more nuanced understanding of service user outcomes by age and type of rehabilitation support received.

Interviews – Sight for Surrey service users

In-depth interviews with 14 Sight for Surrey vision rehabilitation service users (eight from Group 1 and six from Group 2) were carried out. The purpose of these interviews was to develop a deeper understanding of outcomes from the service user perspective and to understand whether outcomes achieved may be plausibly attributed to the vision rehabilitation service (and not other factors).

Interviews – Sight for Surrey professionals

Interviews with ten Sight for Surrey professionals were carried out. The purpose of these interviews was to identify any non-recorded or indirect costs involved in delivering the vision rehabilitation service; gather evidence of outcomes from the perspective of professionals; obtain further estimates of activity volume and/or duration; and understand the proportionality of various activities and outcomes where possible.

Review of service data

Sight for Surrey service data, including figures on client volume, client characteristics (e.g. age, gender), volume of specific activities (e.g. specialist assessment and in-depth rehabilitation sessions) and information on intended outcomes were reviewed.

²¹ This figure is an approximation of the amount of Sight for Surrey 2015/16 service users who received only equipment and did not progress to further in-depth rehabilitation sessions; no actual figures are available. It is based on combining information from interviews with Sight for Surrey professional staff with Sight for Surrey data on their 2015/16 service usage numbers.

Rapid evidence review

A rapid search of authoritative and robust published evidence complemented the primary research and was used to support the attribution of specific outcomes to vision rehabilitation services beyond the case study example. Where there is an absence of direct evidence on vision rehabilitation, we relied on evidence from similar fields (e.g. reablement, independent living, occupational therapy) as proxies for vision rehabilitation services.

The evidence review was also used to check that our categorisation of overarching and specific outcomes was legitimate and relevant to vision rehabilitation services beyond the Sight for Surrey case study. The literature was also searched for evidence to enable us to identify or corroborate likely effect sizes of different outcomes, as well as the types of outcomes experienced by different sub-groups of service users.

This stage also included searching authoritative data repositories of accepted and evidenced financial values of health and social care services. ²² This enabled us to ensure accuracy of cost (and outcome value) calculations, where direct market values were not available for specific activities, services and/or outcomes.

3. Understanding vision rehabilitation

3.1 Components of a vision rehabilitation service

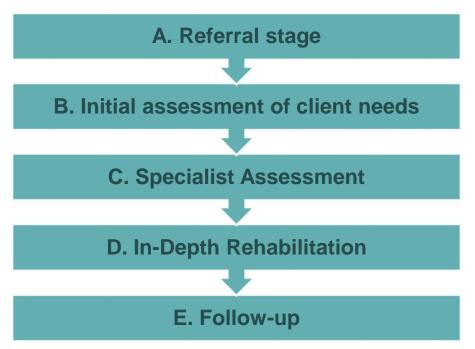
Vision rehabilitation services – whether provided by a team within a local authority or contracted to a community sector service provider – typically involve five key stages which are shown as a diagram in Figure 2 and outlined below.

Not all clients referred into a vision rehabilitation service experience all the key stages; this depends upon the specific needs of each individual. Vision rehabilitation teams make referrals to other relevant services during any of the stages of the vision rehabilitation process when it is appropriate to the client's need. Therefore, clients may leave the service after any of the stages, once their needs are met. Clients may also leave the service because they do not feel ready to engage, for example if their sight loss was recent and they have not yet come to terms with it; or they disengage for reasons unknown to the service.

Typical vision rehabilitation services involve management staff, rehabilitation workers and administrative staff working together to provide the different elements of vision rehabilitation.

²² Such as the Personal Social Services Research Unit that operates as a partnership between the London School of Economics and Political Science, the University of Kent and the University of Manchester.

Figure 2: Key stages of a vision rehabilitation service



A. Referral stage

• Clients are referred into the vision rehabilitation service through several possible pathways, including:

- Certificate of Vision Impairment (CVI) this is the primary referral route
- Self-referral or re-referral (for example, because their condition or situation has changed)
- Eye Clinic Liaison Officers (ECLOs)
- General Practitioners
- Through voluntary or community sector organisations
- Internally, via a related service in the same organisation.

B. Initial assessment of client needs

• After referral, both CVI and non-CVI clients are contacted for an initial assessment to establish and prioritise their need.

• Often there is a waiting list for specialist assessments, so a service will initially assess the urgency of a client's need as well as the type of need. This enables them to respond proportionately, taking into consideration elements such as a client's living arrangements, support networks, and the speed at which they experienced sight loss.

• Initial assessments are usually conducted by telephone and, where possible and appropriate, may include immediate referrals to appropriate external services.

• A record of the client's case or file should contain documentation of the 'rehabilitation plan' discussed with the client. The rehabilitation plan ensures the client knows what has happened, what will happen next, and why.

• CVI clients need to be contacted within two working days of referral and best practice dictates that all referrals are handled in this timeframe.

• At this stage, all clients with a CVI should be offered registration on their local authority's local register of people with vision impairment, if they are not already registered.

C. Specialist assessment

• All appropriate referrals will be offered a specialist assessment following the initial assessment. However, some will not go on to receive one – this may be because the service is not able to get in touch with the client, or because the client changes their mind.

• Specialist assessments are conducted by specially trained rehabilitation workers, face to face, usually in the client's home.

- Rehabilitation workers further assess a client's needs with regards to their:
 - Mobility in and outside the home

– Ability to communicate – reading and writing, and keeping in touch with family, friends and service providers

- Social participation
- Ability to complete daily living tasks independently (e.g. cooking, shopping)
- Emotional state and acceptance of their condition.

• Rehabilitation workers discuss a client's needs and work with them to agree a rehabilitation plan.

• The rehabilitation plan may include some or all of the following:

 Issuing basic equipment such as bump-ons (raised stickers to help navigate the microwave or the TV remote control, for example) or liquid level indicators

Issuing more specialist equipment such as a Penfriend (a talking labeller device) or special lighting

- Signposting or referring to other services
- Referring for in-depth vision rehabilitation (stage D below).

D. In-depth rehabilitation

• Following a specialist assessment, some clients will be referred to receive further in-depth rehabilitation.

• In-depth vision rehabilitation is tailored to each client based on their needs and may occur over one or multiple visits, usually in the client's home.

• A rehabilitation worker creates a rehabilitation plan for each client that may involve some or all of the following:

- Training in daily living skills and assistive technology
- Mobility training
- Training in communication and associated technology
- Employment-related support
- Emotional support.

• Daily living skills training and mobility skills training seem to be delivered most frequently.

• Clients may be at different stages of a process of coming to terms with their vision impairment conditions, and this can vary significantly from individual to individual, so rehabilitation support is bespoke to each person's physical and emotional needs.

• The rehabilitation support is also based on an assessment of what is safe for each individual. For example, while a liquid level indicator may be useful to help someone with sight loss to pour hot drinks without spilling them and scalding themselves, if that service user has other conditions, such as dementia, that make it difficult for them to remember how to use it safely, then that equipment is not safe for them. The specialist rehabilitation worker makes these assessments of what is beneficial, safe and appropriate for each individual in order to meet their needs appropriately.

E. Follow-up

Some services contact clients after they have left the vision rehabilitation service to ensure their needs have been met.

3.2 The Case Study: Sight for Surrey

The case study site – Sight for Surrey – is a charitable organisation that delivers specialist services to people who have vision impairment, are deaf or hard of hearing, or have combined sight and hearing loss.

For the purposes of this study we have focused specifically on the vision rehabilitation service. Sight for Surrey is contracted by Surrey County Council to provide vision

rehabilitation services in Surrey and maintain Surrey County Council's local voluntary register of people with vision impairment.

Sight for Surrey's vision rehabilitation service broadly aligns with the five key stages outlined in the previous section, making it a useful case study to help understand the costs and benefits of vision rehabilitation services more widely. There are a few specific elements relating to the way Sight for Surrey organises their vision rehabilitation service that are worth highlighting, as follows:

• Pre-assessment: A pre-assessment visit is conducted where either the initial telephone assessment is unable to achieve clarity about the client's needs or when it is clear that their immediate needs are simple to meet (for example, with a piece of basic equipment) before a specialist assessment is completed. Between 17% and 30% Sight for Surrey vision rehabilitation clients receive such a visit²³, most of whom go on to receive a full specialist assessment.

• A specialist assessment in two visits: Sight for Surrey generally conducts a specialist assessment in two home visits which allows for needs based equipment distribution to clients²⁴.

• Rehabilitation Support Workers: The service employs specialist qualified Rehabilitation Workers and specialist trained Rehabilitation Support Workers spreading the rehabilitation workload appropriately across the two roles to ensure a proportionate and client appropriate response.

Delivery volume: referrals and clients

In 2015/16 Sight for Surrey received **706 referrals** to their vision rehabilitation service team of whom **702 progressed to a specialist assessment**. The majority of Sight for Surrey's referrals are received through the CVI route with the number of referrals from other channels (i.e. self- and re-referrals, Eye Clinic Liaison Officer, etc.) estimated at 15-20% of total referrals²⁵

The exact number of clients receiving in-depth rehabilitation from the Sight for Surrey team is not known²⁶. However, a total of **284 referrals** were made into in-depth rehabilitation in

²³ Based on 2015/16 figures.

²⁴ Sight for Surrey are in the process of streamlining the specialist assessment process, changing to one visit in most cases, by issuing rehabilitation workers with a standard set of equipment that can be provided as part of a single visit. A second specialist assessment visit will then only be needed if more specialist equipment if required.

²⁵ The estimate comes from interviews with Service Managers and administrative staff. In 2015/16 Sight for Surrey were not required to monitor number of re-referrals to their vision rehabilitation service.

²⁶ This is due to Sight for Surrey measuring activity per month, not per service user. The record-keeping system counts referrals (from any of the vision rehabilitation stages) into the different types of in-depth rehabilitation, not the number of individuals that are referred to the in-depth rehabilitation stage.

2015/16²⁷. This figure of 284 represents a referral into a specific type of rehabilitation (e.g. daily living skills; mobility training; braille) and not the number of individuals referred. The same individual could be referred to more than one type of rehabilitation. Therefore, the number of individuals receiving in-depth rehabilitation visits was less than or equal to 284. Indepth rehabilitation may involve between one and 30 sessions per client per type of rehabilitation.

All clients who use the Sight for Surrey vision rehabilitation service receive a follow-up call six months after exiting the service.

Sight for Surrey were not required to monitor the number of **re-referrals**, but anecdotal evidence from interviews with staff suggest that many self-referrals may in fact be individuals re-referring themselves to the service when they need a different type of support because of a change in their condition or circumstances.

Equipment distribution

Sight for Surrey provide a range of equipment under contract to service users who meet Care Act eligibility to receive specific items on long-term loan. Other equipment, such as UV filters and magnifiers are considered medical devices and are dispensed at Low Vision Clinics attached to Eye Clinics in hospitals.

Rehabilitation workers may also recommend equipment not available on loan or free of charge, that the service user can choose to buy or access for themselves. An example of this is where rehabilitation workers demonstrate a talking labelling device to show the service user how to use it, and then they have the option of ordering this for themselves to assist with their day-to-day tasks. In addition, some service users may prefer to purchase equipment privately from Sight for Surrey, such as magnifiers, rather than using them on loan.

Staffing

The Sight for Surrey vision rehabilitation service is staffed by the following roles.

- Service Manager 1 employed Full Time Equivalent (FTE)
- Rehabilitation Worker 8.4 FTE
- Rehabilitation Support Worker 2.6 FTE
- Helpdesk Advisor 2 FTE

²⁷ This figure does not capture how many visits it takes to deliver an in-depth rehabilitation referral, with any one in-depth rehabilitation referral taking between one and 30 face-to-face contacts with the client to complete. Using estimates of the number of hours taken for staff to complete the most time intensive, the least time intensive and the 'average' cases, Sight for Surrey estimate that a total of 24,112 hours of staff time are spent on in-depth rehabilitation.

- Specialist Administrator 1.6 FTE
- Equipment Advisor 0.6 FTE

In cases where certain staff/roles have responsibilities across other Sight for Surrey services (such as hearing loss, equipment management, etc.), the FTE loads above include only hours dedicated to vision rehabilitation. One Rehabilitation Worker who is qualified with a Diploma in Deafblind studies works specifically with deafblind clients.

The services of an Equipment Manager (who is a dispensing optician and manages the work of the Equipment Advisor) underpins the vision rehabilitation service. However, their time has not been included in the calculations of the costs of Sight for Surrey's vision rehabilitation service as their role within the rehabilitation service is not 'frontline'. The role includes the management of equipment stocks for the whole Sight for Surrey including for their other services and programmes. The costings do however take into account their attendance at regular vision rehabilitation team meetings. Sight for Surrey also employs 2.2 FTE Eye Clinic Liaison Officers who, whilst not directly involved in the vision rehabilitation service, are complementary to it.

4. Findings

4.1 The cost of vision rehabilitation²⁸

What is included in the cost calculations

The cost of the entire Sight for Surrey vision rehabilitation service, from handling referrals through to follow-up post-exit phone calls, as well as regular team meetings, complex case management, policy review and equipment distribution, includes:

- Staff salaries and on-costs (i.e. National Insurance Contributions and employer pension contributions);
- Equipment purchases both for demonstration and to distribute to clients;
- Assessment-related travel expenses (i.e. to clients' homes); and,
- Administrative overheads²⁹.

These costs are direct costs, and full costs, reported as net present values (i.e. 'in today's money') based on the year 2015/16. Our primary research with professionals did not uncover any indirect costs (such as resources provided by another agency in-kind, etc.).

²⁸ All financial values reported are 2015/16 market values.

²⁹ We have calculated overheads for the service as a proportion of the total salary costs following on from the findings of a recent University of York Social Policy Research Unit survey of vision rehabilitation services across the UK (Rabiee et al, 2015) which showed that, on average, overheads for vision rehabilitation services equate to about 30% of total salary costs.

We acknowledge that this may not always be the case in other vision rehabilitation services, and would therefore recommend probing for indirect costs in each instance, rather than to simply assume that these do not exist in every case.

The costings take into consideration Sight for Surrey's service model that involves a specialist assessment being conducted in two home visits; the first visit takes place to assess the needs of the client and the second visit normally occurs to bring equipment to the service user as described above.

To capture an accurate picture of the cost of the components of the Sight for Surrey vision rehabilitation service and separate the vision rehabilitation service out from the other services and functions that Sight for Surrey deliver (such as hearing loss services, eye clinic liaison, etc.), cost calculations were stage-based. That is, for each stage conducted as a part of the vision rehabilitation service (i.e. referrals handling, specialist assessment, and so on) we identified minimum, maximum – and then midpoint – figures for:

- The staff members involved in delivering the stage and their salary range (in pounds, including NIC and pension on-costs);
- The range of time taken to complete all tasks in the stage (in hours), including preparation time, travel time, delivery time, and follow-up tasks such as note-taking;
- The number of times the stage was completed (or likely completed) in the 2015/16 year (i.e. for how many clients, etc.).

These figures were then used to gauge the minimum, maximum and midpoint costings for the service as a whole; this takes into account possible variations in delivery times, the seniority of staff members working at each stage and service user volumes and allows for a per service user cost to be established.

Below is an overview of the cost of providing the Sight for Surrey vision rehabilitation service based on their service usage patterns and volumes from 2015/16. The figures presented in this section take the mid-point of the range.

Costs in context of vision rehabilitation stages

The total cost of the Sight for Surrey vision rehabilitation service in 2015/16 was calculated as being between a minimum of £739,364 and a maximum £1,096,703.

The midpoint of this range is \pounds **918,034**³⁰. Taking the midpoint figure as the total cost of the service, this is a cost of \pounds **1,300 per referral**³¹.

The two tables below (Table 1 and Table 2) show the total cost of each component of the staff and non-staff expenses that were calculated in costing the service.

³⁰ The midpoint of the minimum to maximum calculated cost range will be used throughout the report as the total cost of the Sight for Surrey vision rehabilitation service.

 $^{^{31}}$ The minimum cost per referral is £1,047 and the maximum cost per referral is £1,553

Table 1: Calculations of Sight for Surrey staff-related expenses, based on the midpoint of the range of calculations made using client throughput data for 2015/16, full staff costs and estimates of the time taken to deliver each stage of the vision rehabilitation service.

Staff related expenses	Cost (to nearest £)	Percentage of staff costs	Percentage of total cost
A1. Referrals: CVI referrals handling Delivered by a Specialist Rehabilitation Administrator	£4,048	0.6%	0.4%
A2. Referrals: Non-CVI referrals handling Delivered by a <i>Helpdesk Advisor</i>	£596	0.1%	0.1%
B. Initial Telephone Assessment Delivered by a <i>Specialist Rehabilitation Administrator</i>	£13,703	1.9%	1.5%
C. Pre-Assessment Delivered by a Rehabilitation Support Worker	£8,604	1.2%	0.9%
D. Specialist Assessment Delivered by a <i>Rehabilitation Worker</i>	£174,713	24.4%	19.0%
E. In-depth rehabilitation Delivered by a <i>Rehabilitation Worker</i> ; supported by a <i>Rehabilitation Support Worker</i>	£451,859	63.0%	49.2%
F. Follow up call Delivered by a <i>Rehabilitation Support Worker</i>	£5,551	0.8%	0.6%
Management tasks: Complex case supervision Delivered by the Service Manager	£11,420	1.6%	1.2%
Management tasks: Service strategy, policy, process guidance Delivered by the Service Manager	£25,884	3.6%	2.8%
Regular team meetings Team meetings involve all staff	£12,904	1.8%	1.4%
Issuing equipment Delivered by a <i>Rehabilitation Worker</i> ; supported by an Equipment Advisor	£7,763	1.1%	0.8%
SUB-TOTAL - Staff costs	£717,046	100%	78.1%

Table 2: Sight for Surrey non-staff expenses, based on actual spending information shared by Sight for Surrey and a calculation of overheads for a service of its size.

Non-staff expenses	Cost (to nearest £)	Percentage of non-staff costs	Percentage of total cost
Cost of equipment	£24,000	11.9%	2.6%
(Average annual cost borne by Sight for Surrey ³²)			

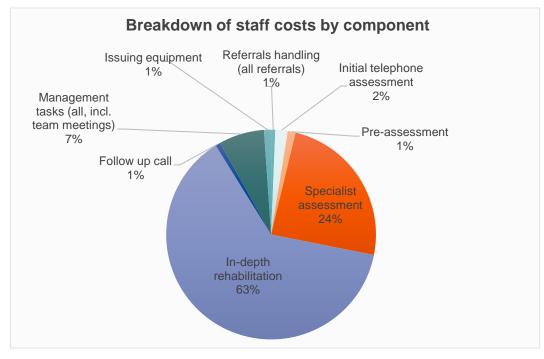
 $^{^{32}}$ This does not include any equipment related costs borne by clients.

OPM Group	Demonstrating the impact and value of vision rehabilitation
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Travel expenses	£17,000	8.5%	1.9%
Overheads	£159,988	79.6%	17.4%
(Including rent, HR, IT hardware and support, etc.)			
SUB-TOTAL - Non-staff costs	£200,988	100%	21.9%

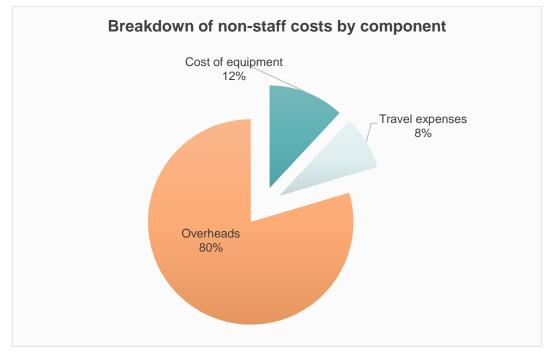
Tables 1 and 2 above show that Sight for Surrey's staff related costs account for 78.1% of their expenses; non-staff costs make up 21.9%. The Sight for Surrey vision rehabilitation service costs for staff and non-staff categories are further broken down in Figures 3 and 4 below³³.

Figure 3: Staff costs by component



 $^{^{\}rm 33}$ Note: In Figure 3, some items have been combined, i.e. team meetings and management tasks.

Figure 4: Non-staff costs by component



The breakdown of costs shown in Tables 1 and 2, and Figures 3 and 4 above, demonstrate that the most significant amount of resource is being channelled into the in-depth rehabilitation stage of vision rehabilitation i.e. 63% of all staff related costs or just under 50% of the total calculated costs for the service.

In 2015/16 a total of 702 clients received a specialist assessment. Data was not available on the number of clients that go on to receive in-depth rehabilitation but we do know that a total of 284 referrals were made to in-depth rehabilitation in 2015/16 (see section 3.2 for further detail). Therefore, the number of individuals receiving in-depth rehabilitation visits is less than or equal to 284.

4.2 The impact of vision rehabilitation

Service user needs

Through the initial assessment of client needs and the specialist assessment, the Sight for Surrey team identify the needs for each individual referred in to the service. The needs most commonly identified for clients of the vision rehabilitation service include:

- Not able (or confidently able) to get out of the house e.g. not able to travel independently or lack of confidence;
- Not able to access the information they need e.g. reading mail, prescriptions and medicine labels, hospital appointment letters, etc.;

- Difficulty communicating with friends and family or services e.g. by telephone or email;
- Not able to cook or prepare drinks safely;
- Facing loneliness and social isolation.

Outcomes for service users

Immediate outcomes

Interviews with Sight for Surrey service users and professional staff reveal a clear set of outcomes experienced by service users as well as a perspective on the impact for their family members and informal carers.

There were four key areas of impact for vision rehabilitation clients (below and shown in Figure 5) encompassing improvements in relation to:

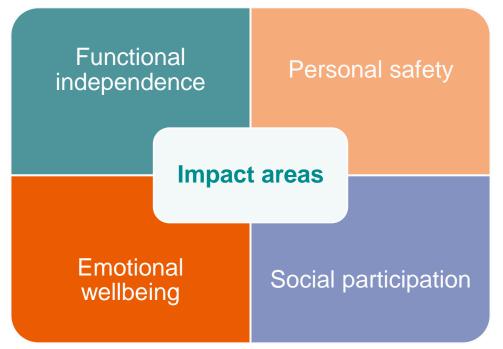
- 1. Functional independence
- 2. Personal safety
- 3. Emotional wellbeing
- 4. Social participation

While the above impact areas were uncovered through primary research with Sight for Surrey professionals and service users, wider evidence suggests that these types of outcomes are likely to be common for vision rehabilitation services more generally. In particular, Rabiee et al³⁴ collated evidence from a number of US-based studies to find that the two most prominent areas in which vision rehabilitation services are effective are: helping clients to accomplish daily tasks and to adjust emotionally to vision loss. Taking research on reablement services as a proxy for vision rehabilitation, we can also be more confident that the functional independence and personal safety outcomes we heard about in interviews are accepted outcomes of reablement services that aim to 'reduce the number of care hours required to support a person at home or develop their independence so that they can remain in their own home instead of being admitted to residential or nursing care¹³⁵.

³⁴ Rabiee, et al. 2015.

³⁵ Francis, Fisher & Rutter. 2014.

Figure 5: The four key impact areas arising for clients of Sight for Surrey's vision rehabilitation service.



These four overarching impact areas can be split down further into outcomes – the changes, benefits or other effects experienced by service users. These are outlined in more detail in Table 3 below.

Table 3: Outcomes for vision rehabilitation clients

Area of impact	Outcomes
1. Functional independence	a. Improved ability to travel (alone) outside of the house in local area
	b. Improved ability to travel (alone) on public transport
	c. Increased ability to complete daily living tasks in the home independently - does not require outside assistance
	d. Increased ability to complete daily living tasks in the home independently - stays in own home longer
	e. Increased ability to complete daily living tasks in the home independently - relies less on family members/carer
2. Increased personal safety	a. Less likely to be injured from accidents in and outside the home and require ambulance
	b. Less likely to be injured from accidents in and outside the home and require A & E visit
	c. Less likely to be injured from accidents in and outside the home and require hospital admission
	d. Less likely to be injured from accidents in and outside the home and require follow-up care for injury i.e. by GP

3. Improved emotional wellbeing	a. Increased level of acceptance of vision impairment condition
	b. Increased confidence completing daily living tasks independently
	c. Increased feelings of dignity (esp. regarding eating)
	d. Increased levels of enjoyment in leisure time
	e. Increased sense or feeling of safety
4. Decreased social isolation	a. Service user has increased contact with people in the community, networks and friends
	b. Service user has improved ability to use communications technology i.e. telephone, computer

The outcomes have been categorised in this way to enable us to assign financial values to the benefits experienced as a result of vision rehabilitation, however an outcome is often interrelated with another. For example, gaining functional independence such as being able to walk to the local shop using a long cane often has knock-on impacts such as improved emotional wellbeing (feeling happier and more confident), social participation (being able to meet and interact with people outside the home), and personal safety (travelling with the knowledge needed to avoid accidents and dangers such as busy roads).

"I stop and talk to people now, lots of people want to help when they see the stick and I don't feel embarrassed to talk to them. My case worker was invaluable, she broke down my embarrassment." – Service user

On the other hand, for some service users, the impacts are very tangible and specific in nature, such as being able to see the food they are eating for dinner using special lighting, being able to read their mail using a magnifier, or being able to operate the kettle and pour a drink safely.

"I have a lamp. I have a job eating my dinner because I can't see what I'm eating so I put my lamp on and that does help me. I use it for lots of other things too. I use it to change the batteries in my hearing aid. I have terrible trouble with that otherwise. I use it for all sorts of things." – Service user

Some of the professionals we interviewed described their role in providing service users with skills to enable greater independence as being a key factor in enabling outcomes:

"What makes these outcomes possible is that it's about delivering a skill rather than just knowledge. It's about training rather than telling. And it's done in a way that means the person has to own it for themselves. There are some things where it could be tempting to do things for them, but that's not the principle of the service. The principle is giving them skills to enable them to do things." - Professional

Perhaps this is why some of the service users we interviewed felt that their own determination and strength of character made a significant contribution to the outcomes they experienced, in addition to the specific training and support they receive from the vision rehabilitation service – because the service actively encourages and supports people to own the change themselves.

Outcomes by service user group

There was overlap in the types of outcomes experienced by the two groups of service users interviewed, largely because most service users in Group 1 (who had experienced in-depth rehabilitation) also received equipment of some kind from Sight for Surrey during their vision rehabilitation, while some individuals from Group 2 (who received equipment following a specialist assessment) had received in-depth rehabilitation at an earlier date. Furthermore, because the support provided is bespoke according to each individual's needs, two individuals may experience the same outcome as a result of different types of support.

As a result, there was little difference in the types of outcomes experienced by the service users in the Group 1 and 2 sub-samples. There did however appear to be a difference in the outcomes and benefits experienced by service users of *different ages*.

We heard from interviews (both with professionals and service users themselves) that service users in the over 65 age range, especially at the older end of the range, found most benefit from daily living skills sessions and equipment that gave them some independence in tasks around their homes. Service users under 65, were more likely to emphasise the role of mobility and communication training in the improvements they experience as a result of the vision rehabilitation. This information from our primary research was used to make assumptions and estimations about the proportion of service users who experience different outcomes.

Non-immediate, indirect impacts

We have focused mainly on immediately attributable impacts, but it is important to note the potential for further follow-on impacts to arise partly as a result of vision rehabilitation. For example, some of the outcomes are task-orientated so they can be clearly attributed to the vision rehabilitation support e.g. ability to operate a microwave safely to cook a hot meal. However, in the long-term it is feasible that this same individual would be better able to manage their nutrition as a result of this skill, and is less likely to be malnourished or fall ill. These potential outcomes are harder to measure and the strength of attribution is limited and questionable, therefore we have not included them when assigning financial values to outcomes.

Outcomes for family members and carers of service users

In addition to impacts on the service users themselves, there are wider impacts for family members and carers. The main direct outcomes for the family and carers of clients are shown in Table 4 and include:

- A reduction in the burden associated with providing informal care, such as the need to reduce hours in employment or spend additional money on care-related expenses such as travel.
- A reduction in the anxiety felt about their family member.

Table 4: Outcomes for the family and carers of vision rehabilitation clients

Area of impact	Outcomes
Reduced anxiety about service user	a. Increased confidence that service user has an additional source of support for vision impairment and decreased feelings of worry/anxiety about service user
	b. Reduced burden of informal care

The secondary sources of evidence that supplement the outcomes found via our primary research with Sight for Surrey service users and professional staff can be found in the appendix to this report.

Verifying outcomes and impact areas

The tables presented above show the specific outcomes identified under each impact area. These impact areas and specific outcomes were arrived at by taking what we heard through primary research with Sight for Surrey service users and professionals then consulting the published evidence to establish the plausibility that an area of impact does manifest itself in terms of these specifc outcomes.

4.3 Valuing outcomes in monetary terms³⁶

The outcomes we have identified are for service users and their family members and carers, however it is clear that the benefits are felt beyond them. The outcomes arising for both vision rehabilitation clients and their families and carers have the potential to generate financial benefits for both the individual and more broadly, where the outcome leads to a reduced reliance on other services. It is important to note that most of these are 'avoided costs' and are not, therefore, necessarily about 'cost savings'. Nonetheless, they have a

³⁶ All financial values reported here being 2015/16 values.

value that needs to be acknowledged, for example in reducing pressure on other services even where these do not generate 'cash-releasing savings'.

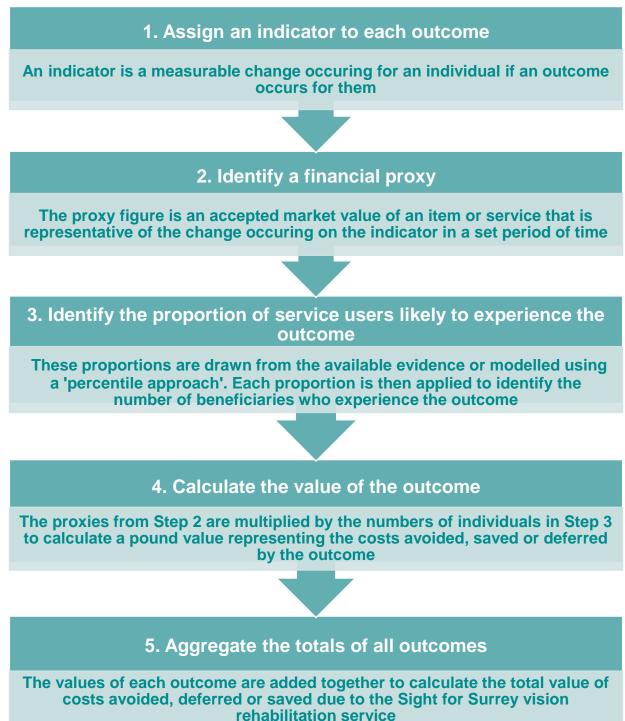
Some of these benefits are more indirect than others, especially those that impact on the wider system, and we are not claiming that all reported benefits are always and wholly because of the vision rehabilitation service.

Calculating the financial value of Sight for Surrey outcomes

The process of attributing monetary values for Sight for Surrey outcomes involved several logical steps to link each outcome to a financial value (called a 'proxy') via an indicator and then to calculate a value based on the likely proportion of service users who would experience the outcome (e.g. some outcomes will be more likely for those in a certain age bracket, or under certain conditions).

The process is outlined in Figure 6, explained below, and demonstrated with an example in Table 5 before we move on to summarise our final calculations.

Figure 5: The process of calculating financial values for the Sight for Surrey vision rehabilitation service outcomes



The process of calculating financial values for the Sight for Surrey vision rehabilitation service outcomes includes the following steps for each outcome within each impact area (i.e. functional independence, personal safety, and so on).

1. Assigning the outcome with an indicator and assumed change

• An indicator is a specific, measurable thing that will occur if an outcome holds true for an individual. The indicator can therefore be tracked to verify if an outcome is being achieved.

• When selecting indicators for outcomes there is not only one option. It is likely there will be several changes in service users' lives that may indicate that an outcome has occurred for them.

• We looked to a variety of relevant published sources to support the selection of indicators for each outcome (and the changes in them that would be true if the outcome held true) – these sources appear in the reference list in the appendix.

• For example: for the outcome 'increased ability to complete daily living tasks in the home independently and does not require outside assistance', the chosen indicator is 'a reduction in the use of conventional home care services'.

• Using the literature, we also identified the assumed change in an indicator across a one year period (which would indicate the outcome occurring), for each outcome.

2. Identifying a financial proxy for the indicator

- A financial proxy allows a financial value to be identified for outcomes that, in and of themselves, don't have a market value.
- Proxies are financial figures which represent the cost of a known item or service that can logically 'stand in for' the unknown quantity.
- In the case of this research, proxies have been selected based on being linked by secondary evidence to the indicator for each outcome.
- For example: the proxy for the outcome and indicator in Step 1 above (and shown in Table 6) is: the cost of homecare services.
- Any change in an indicator (i.e. a decrease in the amount of homecare used by an individual) can be quantified in financial values using the proxy figure.

• All proxy values identified in this research come from repositories of the unit costs of services (or items) in the health and social care sectors³⁷ are as up-to-date as possible to 2015/16, and are laid out in full in the technical appendix available from RNIB on request.

³⁷ Such as the Personal Social Services Research Unit's 'Unit Costs of Health and Social Care 2015' compiled by Curtis & Burns (2015).

3. Identifying the proportion of service users who experience the outcome

• The proportion of service users (or their family members/carers) for whom an outcome is likely to occur as a result of the Sight for Surrey vision rehabilitation service will be determined by factors such as their age and personal circumstances (such as condition, social support networks, living arrangements, etc.)³⁸.

• As this type of information for individuals is unknown and difficult to aggregate, assumptions about the likelihood of experiencing each outcome were made by drawing from our primary research and the available secondary evidence, such as studies showing proportions of service users experiencing certain outcomes and patterns identified in the primary interview data.

• Where it was not clear from primary or secondary sources what proportion of service users (or their families or carers) are likely to experience a specific outcome, we modelled possible scenarios based on a percentile approach; that is, by attributing a proportion of 10%, 25% or 50% to that outcome that represents a scenario in which, respectively, 10%, 25% or 50% of service users experienced the outcome.

• The entire cohort of service users who are likely to experience an outcome may not, in fact, all experience it. We therefore took a conservative percentile approach to estimating the proportion of the cohort who are likely to experience each outcome. We took 10% as the proportion³⁹, however, other proportion figures may also be chosen in order to demonstrate scenarios in which higher or lower proportions of service users experience Sight for Surrey outcomes⁴⁰.

• These two figures (the cohort of service users who are likely to experience an outcome and the proportion of this cohort estimated to actually experience the outcome) were then multiplied by the total number of Sight for Surrey service users who received a specialist assessment in 2015/16 (702 individuals) in order to calculate the number of individuals each outcome pertains to.

- We have taken a conservative stance with identifying proportions (whether based on evidence or the percentile approach) so as not to overestimate the incidence of each outcome occurring nor the final calculation of associated financial value.
- Our assumptions and supporting evidence can be found in the technical appendix available from the RNIB on request.

³⁸ As exact figures for the number of individual service users who receive in-depth rehabilitation are not available, these proportions are not differentiated by those who received in-depth rehabilitation and those who exited the service at an earlier stage.

³⁹ A proportion of 10% was used for our calculations in order to take a conservative approach to the modelling, to avoid any risk of over-claiming the financial value of outcomes.

⁴⁰ A number of different scenario calculations are presented in a separate technical appendix – which is available on request from RNIB.

4. Multiplying the proxy figures with the number of service users experiencing the outcome

• Once identified, the proxy values were adjusted to be representative of the assumed change occurring on an indicator in a one year period and then multiplied by the number of service users experiencing the outcome (from Step 3 above) – itself a figure derived from multiplying the percentage of those likely to experience the outcome by the total number of service users⁴¹.

• This multiplication results in a financial value for each of the outcomes that represents the potential costs reduced, avoided or deferred if the outcomes are true for the proportion of service users in the calculations.

5. Aggregating the financial values for all outcomes

• The final step was to add the financial values generated for each outcome together (having completed Steps 1 through 4 for each) to get a total figure for all outcomes.

• We have also produced a sub-total for each of the impact areas (i.e. functional independence, personal safety and so on.)

Table 5: An example of the logical flow from outcome through to the attribution of a financial value to
each Sight for Surrey outcomes showcasing how this is done for one outcome. This example is taken
from the full tables of outcomes provided in the appendix to this report.

Impact area:	1. Increased functional independence
Outcome:	c. Increased ability to complete daily living tasks in the home independently and does not require outside assistance
Selected indicator:	Reduced use of conventional home care services
Supporting evidence for the indicator:	Few studies have explored the direct and indirect impacts of vision rehabilitation services, however vision rehabilitation is a form of reablement service, for which many studies have identified impacts.
	A recent review of the reablement literature by the Social Care Institute of Excellence (SCIE) found that 'research evidence demonstrates that reablement improves independenceand removes or reduces the need

⁴¹ We have used the figure of 702 as the total number of service users in our case study; 702 is the number of Sight for Surrey service users who received a specialist assessment in 2015/16 as the base figure for all outcome valuation calculations. This excludes the four Sight for Surrey referrals that did not proceed to a specialist assessment.

	for commissioned care hours (in comparison with standard home care)' ⁴² .
	Among this evidence are several studies that have shown between 58 and 78 per cent of reablement service users require no further home care after a reablement episode ⁴³ , with one study showing the effect lasting up to 12 months after the reablement episode ⁴⁴ .
Selected proxy:	Home care costs
Proxy value	£178 / week (£9,256 / year)
and source:	According to a study of homecare provision documented in the PSSRU Unit Costs of Health and Social Care 2015, the average cost of home care (across people with a disability with moderate, substantial and critical care needs) was £178 (at average of 9 hours per week).
Cohort of Sight	68% (0.68)
for Surrey service users likely to	As above, studies have shown that 58 to 78% of reablement service users require no home care after a reablement service – with the effect lasting up to a year.
experience outcome:	We've used the midpoint of this range as the basis of the assumption around the proportion of Sight for Surrey service users for whom this outcome may hold true for.
Proportion of the likely cohort who experience	We recognise that our case study is not a large enough sample to be able to identify the proportion of the likely cohort who actually experience the outcome.
the outcome	We have taken a conservative percentile approach to make this calculation – and have chosen the figure 10% (0.1).
Calculation:	£9,256 x 0.68 x 0.1 x 702 = £441,844 ⁴⁵
	This calculation suggests that the outcome holds true for 48 of Sight for Surrey's 702 service users who received a Specialist assessment.

⁴² Francis, Fisher & Rutter. 2014.

⁴³ Glendinning, et al. 2010; Kent, et al. 2000; and, Lewin & Vandermeulen. 2010.

⁴⁴ Lewin & Vandermeulen. 2010.

 $^{^{45}}$ Figures have been rounded to the nearest whole number, therefore totals may have rounding errors.

The overall value of Sight for Surrey vision rehabilitation outcomes

Using the approach outlined above, we calculated the potential financial benefits that Sight for Surrey's vision rehabilitation service contributes in the space of a year within the overarching impact areas (see Table 6 below). These values represent a combination of:

- Costs to the health and social care systems that are reduced, avoided or deferred;
- Reduced or avoided costs that would normally be borne by service users or their families/carers;
- The financial values associated with positive benefits generated for service users, their families and carers that would otherwise not have occurred.

Table 6: The potential financial benefits of/costs avoided by the Sight for Surrey vision rehabilitation service by impact area.

Impact area	Potential financial benefit based on a conservative percentile approach (2015/16 year) ⁴⁶ Rounded to nearest £
Increased functional independence	£2,860,860
Increased personal safety	£153,237
Improved emotional wellbeing	£85,330
Improved social participation	£73,839
Outcomes for family/carers	£250,579
TOTAL ⁴⁷	£3,423,844

The figures in Table 6 are high level and multi-layered; they are therefore further broken down into two components in the proceeding sections of the report. These are:

A. Avoided costs for the health and social care systems;

• B. Avoided costs or positive value generated for service users, their families and carers.

⁴⁶ The figures in Table 6 are drawn from conservative calculations of the value of costs avoided in each impact area generated using a percentile approach with the assumption that just 10% of service users likely to experience an outcome actually experience it. The technical appendix to this report includes scenarios based on less conservative calculations where, for example, 25%, 50%, 75% and 100% of service users likely to experience an outcome actually experience it.

⁴⁷ Figures have been rounded to the nearest whole number, therefore totals may have rounding errors.

Most of the potential value resulting from the Sight for Surrey outcomes that we have identified pertains to costs avoided or deferred in the health and social care systems, with some 'softer' outcomes having value generated or costs saved primarily by the service user.

A. Costs reduced, avoided or deferred in health and social care

The reduced, avoided or deferred costs that may be experienced *in the health and social care systems* as a result of the Sight for Surrey vision rehabilitation service total: **£3,168,022**. They are summarised in the first table in the appendix of this report (Appendix Table 1)⁴⁸.

The table shows the four impact areas that relate to service users (i.e. functional independence; personal safety; emotional wellbeing; social participation) and the outcomes identified for carers (i.e. reduced anxiety about the service user and reduced burden of informal care provision), where costs avoided would accrue to health and social care providers. The table goes through each of the outcomes in the impact areas and, for each outcome, includes:

- The selected indicator;
- The selected financial proxy, its value and source;

• The assumed change on the indicator (if the outcome holds true for one service user)

• The value of the change on the proxy;

• The proportion of Sight for Surrey service users likely to experience the outcome – based on our primary and secondary research (or alternative percentile approach where uncertainty is high);

- Evidence to support the proportion; and,
- A calculation of the value generated.

A worked example

The details of how the calculations were made for one outcome are laid out below to demonstrate how to interpret the information in the table in the appendix.

The first outcome highlighted in Appendix Table 1 (also shown in Table 7 below) pertains to the transport component of functional independence. The outcome is: 'Improved ability to travel (alone) outside of the house in local area' which was heard to be an outcome for Sight for Surrey clients through the interview process, particularly for those in the younger age bracket (65 years or younger).

⁴⁸ Please note: all details used to attribute value to these outcomes, including calculations, supporting evidence and references are available in a separate technical appendix available on request from RNIB.

Substantial published evidence supports this finding, suggesting that transport is an important factor for disabled people to live independently. Research on disabled people's experiences of choice and control in their lives noted that transport was one of the issues most frequently mentioned (Office for Disability Issues, 2010); the Life Opportunities Survey (2009-11) reported that 17% of unemployed disabled people experienced transport barriers⁴⁹; and The Papworth Trust found working-age adults with an impairment to be more likely to experience transport barriers than other ages⁵⁰.

The indicator chosen for this outcome is: Reduced reliance on family members/carers for transport. This is supported by research indicating that disabled people in England and Wales travel a third less often than the general public, and that cars are key to their mobility, with the most common mode of transport being a car driven by someone else (such as a family member or friend)⁵¹; disabled people also use buses, taxis and minicabs more often than the general public.

As the indicator has no clear market value, a proxy was selected to represent the costs that would be avoided if reliance on driving trips by friends and family were reduced. We chose to use the cost of community transport trips as the proxy as, while diverse user groups access community transport, the key beneficiaries of these services include people with restricted mobility, with 85% of community transport providers reporting working with people with restricted mobility in 2014⁵².

Our assumption that a change on the indicator would mean two fewer community transport trips per week is a conservative assumption based on 78% of community transport journeys being carried out to take people to social outings; 73% for health-related trips, 68% for shopping, 65% for accessing community activities and 64 per cent to take people to day care centres⁵³ – all activities that could feasibly be necessary to travel for two or more times in a week.

Age Scotland found the fare charged to a service user for an average community transport trip was £3.20. However, community transport providers only pass on 10-20% of the true cost of the service to the service user, with the provider or commissioning authority subsidising the rest⁵⁴. We have therefore used the proxy figure of £19.80 per trip (85% of the true cost of a trip because this is what is charged to the commissioning authority) which translates to a change of £2,059 per year when accounting for two fewer trips per week.

⁴⁹ Morris. 2014.

⁵⁰ Papworth Trust. 2014.

⁵¹ Papworth Trust. 2014.

⁵² Community Transport Association. 2014.

⁵³ Community Transport Association. 2014.

⁵⁴ Age Scotland. 2014. Driving Change: The case for investing in community transport

Our primary and secondary research suggests that this outcome pertains more so to people in the younger age bracket, therefore we assume that this outcome is more likely to hold true for 16% of Sight for Surrey service users - the proportion who were 65 years of age or under. This is 112 of the 702 clients seen by Sight for Surrey in 2015/16.

It is not realistic to assume that the entire younger cohort who received the Sight for Surrey vision rehabilitation service would experience this outcome, so we have taken a conservative 'percentile approach' to demonstrate the value of this outcome, making the financial calculation based on 10% of the younger cohort experiencing it. Therefore, the figure 112 (16% of 702) was multiplied by 0.1 and then by £2,059 for a financial value for this outcome of £23,129.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
Impact Area	a 1: Functiona	l impendence						
a. Improved ability to travel (alone) outside of the house in local area	Reduced reliance on family members / carers for transport	Community transport costs £19.80 per trip Age Scotland. 2013.	The majority of community transport trips are for social outings, shopping and health appointments. Increased mobility in the local area is assumed to reduce the need for two trips on community transport per week.	£2,059	16%	Interviews with Sight for Surrey (SfS) service users showed increased mobility outcomes to be more evident among younger service users (those 65 and under). The proportion is therefore based on the proportion of SfS service users under 65 (drawn from 2015/16 reports to Surrey County Council).	10% (Quartile approach)	£23,129

Table 7: Demonstrating how value is calculated for an outcome where costs are avoided by the health and social care sector.

B. Costs avoided and positive value generated for service users, their families and carers

The avoided costs (and value generated⁵⁵) that may be experienced *by service users, their families and carers* as a result of the Sight for Surrey vision rehabilitation service are summarised in Appendix Table 2 ⁵⁶. They total: **£255,823**.

A worked example

The detail of how the calculations were made for one of the outcomes is laid out below (and in Table 8) to show how to interpret the information in the table in the appendix. This outcome was costed using a 'percentile approach'.

The second outcome highlighted in Appendix Table 2 pertains to the increased enjoyment of leisure time by a service user due to sight rehabilitation. The outcome is: 'Increased levels of enjoyment in leisure time' which was heard to be an outcome of Sight for Surrey clients through the interview process. Sight for Surrey clients spoke of now being able to read again, watch TV or films or do crosswords in their leisure time. The chosen indicator therefore is 'Increased time spent reading or watching films for enjoyment' for which the proxy is the cost of a book/DVD.

Neither primary nor secondary evidence pointed to this outcome being more or less true for vision rehabilitation clients with certain characteristics or circumstances and therefore, to identify a proportion of service users the outcome may hold true for, we used a percentile approach, costing the value of this outcome based on if it were true for 50% of service users.

It is not reasonable to assume that the entire 50% of service users described in the paragraph above would experience this outcome, so we have taken a conservative 'percentile approach' to demonstrate the value of this outcome, making the financial calculation based on 10% of half of all Sight for Surrey service users. Therefore, the figure 351 (50% of 702) was multiplied by 0.1 and then by £10 to calculate a financial value for this outcome of £4,212.

⁵⁵ Attaching a financial value to the largely intangible outcomes 3c. and 3.d (respectively, increased feelings of dignity; and increased levels of enjoyment of leisure time) steps away from the cost-avoidance approach used to place value on the other outcomes. This use of proxies to place a value on a positive outcome is an accepted practice in economic analysis and represent a value generated for the service user as a result of the service.

⁵⁶ Please note: all details used to attribute value to these outcomes, including calculations, supporting evidence and references are available in a separate technical appendix available on request from RNIB.

Table 8: The value of costs avoided & positive value generated for service users, their families and carers.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of chang e (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
d. Increased levels of enjoyment in leisure time	Increased time spent reading or watching films for enjoyment	Cost of a book/DVD Assumed average cost of book or DVD is £10 Primary research with service users found the outcome increased enjoyment of leisure time to be often linked by service users to watching TV, doing crosswords or being able to read again and therefore we have selected increased time spent reading or watching films as an indicator for the outcome and the purchase of books and DVDs as a financial proxy for this.	Assumes one additional purchase per month for one year		50%	Using a quartile approach to estimate this proportion - a proportion of 50% shows what the value of this outcome would be if 50% of service users experience this outcome.	10% (Quartile approach)	£4,212

5. Conclusions

This research into the costs and financial value of delivering vision rehabilitation services contributes to the emerging evidence base in this area. Through taking a bottom-up case study approach supported by available secondary evidence and a broader understanding of vision rehabilitation services we have been able to articulate: a) the costs of delivering a vision rehabilitation service; b) the impacts and outcomes experienced by service users and their families and carers; and c) plausible financial values that can be placed on those outcomes in terms of costs reduced, avoided or deferred in the health and social care sector.

Our findings suggest that providing vision rehabilitation services not only contributes to meeting a set of needs experienced by people with a vision impairment but that the financial value resulting from these services (in the form of costs avoided, reduced or deferred) may significantly outweigh the financial costs of delivering them for the health and social care sector.

The cost of vision rehabilitation

The total calculated cost of the Sight for Surrey vision rehabilitation service in 2015/16 was **£918,034**, which is a cost of **£1,300 per referral**.

The most significant amount of resource is being channelled into the in-depth rehabilitation stage of vision rehabilitation, reflecting the thorough, specialist and bespoke nature of this stage of the support. Although the number of individual Sight for Surrey clients accessing this in-depth rehabilitation stage of vision rehabilitation is not known, it represents less than 40% of all service users.

Approximately 60% of all Sight for Surrey vision rehabilitation clients receive only a specialist assessment. For many, their needs are met at this stage and they exit the service rather than being referred to a course of in-depth rehabilitation. In this sense, the term 'specialist assessment' does not capture the fact that it incorporates bespoke support, training and/or equipment in addition to assessing the need for further in-depth rehabilitation. Our research suggests that such timely and appropriate support at an early stage is an effective way of preventing avoidable escalation of service user needs and of ensuring service users know they can access further support should their condition or situation change in the future.

It is important to note that the cost of providing a vision rehabilitation service may look different elsewhere where services have a different staffing mix, client volume, or client composition.

The impact of vision rehabilitation

Five overarching impact areas were identified through the primary research. The first four impact areas relate to the service users themselves, and the fifth relates to their families or carers:

- 1. Functional independence
- 2. Personal safety
- 3. Emotional wellbeing
- 4. Social participation
- 5. Outcomes for families and informal carers related to reduced anxiety and burden of informal care

Through combining the primary research findings with a review of robust and authoritative evidence we have been able to demonstrate several specific outcomes that can plausibly be attributed to vision rehabilitation and these have been used to determine the financial value of the outcomes experienced by service users and their families and carers.

No clear differences were found in the outcomes experienced by service users who had received in-depth vision rehabilitation and those who had received equipment following a specialist assessment. This is not because equipment and a specialist assessment will necessarily produce the same outcomes as in-depth vision rehabilitation, but rather is because the support is bespoke to each individual and therefore individuals may experience the same outcome as a result of different types of support.

There did, however, appear to be a difference in the outcomes and benefits experienced by service users of different ages, and these differences were incorporated into the approach to assigning financial values to vision rehabilitation outcomes.

The financial value of vision rehabilitation outcomes

The reduced, avoided or deferred costs that may be experienced in the health and social care systems as a result of the Sight for Surrey vision rehabilitation service in 2015/16 total **£3,168,022**. This equates to an average of **£4,487 per referral**. The costs reduced, avoided or deferred are likely to be experienced by the NHS and Local Authorities.

The avoided costs (and value generated) that may be experienced by service users as a result of the Sight for Surrey vision rehabilitation service in 2015/16 total **£255,823**. This equates to an average of **£362 per referral**.

When these costs are examined across the five impact areas the majority (95%) of the avoided costs lie in three of the five impact areas, namely, increased functional independence; increased personal safety; and outcomes for families and carers. It could be the case that the other two impact areas (improved emotional wellbeing and social participation) account for such a small amount of the costs avoided because outcomes in these areas are more likely to be indirect outcomes. The main aims of vision rehabilitation services relate to increasing people's independence and safety; they are not replacements for mental health and wellbeing services but nonetheless may improve people's wellbeing and social participation as a 'knock-on effect' of increases in independence and safety, and a reduced reliance on family and carers.

These financial values are conservatively calculated and based on the most robust evidence available. Using this evidence, we have made several informed assumptions, clearly stated throughout this report. These financial values are very significant, especially in comparison to the costs of delivering a vision rehabilitation service, suggesting that the financial value of delivering a vision rehabilitation service may significantly outweigh the financial costs of doing so.

It is important to note that, while the available authoritative evidence was mined to verify and support this area of the research, the lack of robust evidence on vision rehabilitation specifically meant that we needed to draw on related areas such as reablement, independent living and occupational therapy services where there is more evidence available. This is an accepted approach, yet if there were more evidence available on vision rehabilitation specifically this would add to the robustness of the findings and conclusions.

Recommendations for further research

This research makes an early contribution to an evidence base that is currently sparse in the specific field of vision rehabilitation. The methodology was chosen due to the need for a robust yet pragmatic approach in the context of the paucity of existing robust evidence. Our approach means that we can be confident that the findings can be plausibly applicable to vision rehabilitation services more widely than the case study site that was the basis for the research.

However, further research is necessary to continue to address the current gap in evidence. For example, further studies that look at a range of different types of vision rehabilitation service providers and models of delivery could strengthen and build upon the evidence presented here.

Vision rehabilitation services might also be encouraged and supported to develop more robust monitoring data collection mechanisms so that research can be more easily carried out across this specialist service area.

Appendix

A separate technical appendix is available on request from RNIB.

A1. Tables showing costs avoided as a result of vision rehabilitation⁵⁷

Appendix Table 1: Costs avoided that accrue to providers and commissioners of health and social care services.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
Impact Area 1: F	unctional ind	ependence						
a. Improved ability to travel (alone) outside of the house in local area	Reduced reliance on family members/c	Community transport costs £19.80 per trip	The majority of community transport trips are for social outings, shopping	£2,059	16% of 702	Interviews with Sight for Surrey (SfS) service users showed increased mobility outcomes to be more	10% (Quartile approach)	£23,129

⁵⁷ Figures have been rounded to the nearest whole number, therefore totals may have rounding errors.

⁵⁸ Based on OPM Group's primary research with the Sight for Surrey case study and supported by secondary literature review as evidenced in the column entitled 'Evidence to support proposal'.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
	arers for transport	Age Scotland. 2013.	and health appointments. Increased mobility in the local area is assumed to reduce the need for two trips on community transport per week.			evident among younger service users (those 65 and under). The proportion is therefore based on the proportion of SfS service users under 65 (drawn from 2015/16 reports to Surrey County Council).		
b. Improved ability to travel (alone) on public transport	Reduced need for home healthcare visits	Home visit by GP £121.50 / visit New Economy. 2015.	One less home visit per quarter. This is a conservative assumption based on evidence that shows the average	£486	16% of 702	Interviews with SfS service users showed increased mobility outcomes to be more evident among younger service	10% (Quartile approach)	£5,459

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			member of the public in the UK			users (those 65 and under).		
			visits a GP 6 times per year ⁵⁹ .			The proportion is therefore based on the proportion of SfS service users under 65.		
c. Increased ability to complete daily living tasks in the home independently - does not require	Reduced use of convention al home care services	Home care costs £178 / week (based on 9 hours of care – average for adult with	Home care no longer required for at least one year beyond the vision rehabilitation service. This assumption is based on the effect	£9,256	68% of 702	According to studies on the outcomes of reablement services ⁶⁰ on conventional homecare usage 58% to 78% of reablement service	10% (Quartile approach)	£441,844

⁵⁹ The British Medical Association. 2014.

 60 Including: Glendinning et al. 2010; Kent et al. 2000; and Lewin & Vandermeulen. 2010.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
outside assistance		physical disability) Curtis & Burns. 2015.	of vision rehabilitation lasting for 12 months beyond the service – see discussion above about reablement as a proxy for vision rehabilitation.			users need no further home care on discharge from a reablement service episode. The proportion is taken as the midpoint of this range (68%).		
d. Increased ability to complete daily living tasks in the home independently - stays in own home longer	Delay in accessing residential care	Residential care costs £877 / week This is an average of the cost of residential care (incl. establishment costs and	The need for residential care is deferred into the non-immediate future (at least one year beyond the vision rehabilitation service).	£45,604	68% of 702	As above.	10% (Quartile approach)	£2,176,953

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
		personal living expenses allowance) in the private and public sector. Curtis & Burns. 2015.						
e. Increased ability to complete daily living tasks in the home independently - relies less on family members/carer	Reduced use of day or respite care	Day care costs £65 / session £86 / week (1.3 sessions) The proxy figure is the midpoint of the average cost of day care through public and private	Number of days of day/respite care attended is halved – from an average of 2.6 times a week (the average for people with physical disabilities), to 1.3 times per week. This is a conservative assumption based	£4,472	68% of 702	As above.	10% (Quartile approach)	£213,475

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
		providers for people with physical disabilities Curtis & Burns. 2015.	on the reduction in the need for care in the home from the reablement literature – which we assume to also suggest a reduction in the need for respite or day care facilities.					
						FUNCTIONAL IND TOTAL ⁶¹	EPENDENCE	£2,860,860
Impact Area	Two: Persona	al safety						

⁶¹ Rounding errors may be present in totals

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
a. Less likely to be injured from accidents in and outside the home and require ambulance	Reduced no. of ambulance calls/trips	Ambulance costs £212 per call out New Economy. 2015.	No use of ambulance in year after service. Reablement services were used as a proxy for vision rehabilitation. Studies have shown that reablement service users are 30% less likely to attend A&E in the 2 years after receiving the service (compared to those receiving standard	£212	67% of 702	In interviews, older SfS service users spoke about the importance of the equipment provided by the service to help them complete daily living tasks safely, including those that are potentially dangerous (i.e. making a cup of tea, chopping vegetables, etc.) to making them more confident completing these tasks safely. This proportion is based on the proportion of people	10% (Quartile approach)	£9,971

Outcome I	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			home care services). ⁶² From the research, we deduce that improvements in functional independence lead to fewer accidents in and out of the home (including falls – the single largest reason for A&E attendance) and a reduced need to access emergency services and services related to			at SfS who received daily living aid equipment who are in the older age group (above 65).		

⁶² Lewin & Vandermeulen. 2010.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			follow-up treatment of injuries sustained in accidents.					
b. Less likely to be injured from accidents in and outside the home and require A & E visit	Reduced no. of emergency visits to A&E	A&E visit costs £143 per visit New Economy. 2015.	No visit to A& E in year following service. Evidence as above.	£143	67% of 702	As above.	10% (Quartile approach)	£6,726
c. Less likely to be injured from accidents in and outside the home and require hospital admission	Reduced no. of hospital admissions	Cost of a hospital admissions (non- elective) £2,825 per admission New Economy. 2015.	No hospital (non- elective) admission in the year following service Lewin and Vandermeulen also found that reablement clients	£2,825	67% of 702	As above. In 2002, 2.7 million people attended an A&E department in the UK following a home accident. Over- 65s accounted for 19% of the total	10% (Quartile approach)	£132,871

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			were 31 per cent less likely than the comparison group to have an unplanned hospital admission in that same period.			number of A&E home accident attendances ⁶³ .		
d. Less likely to be injured from accidents in and outside the home and require follow- up care for injury i.e. by GP	Reduced no. of appointmen ts for treatment of injuries	Cost of GP appointment £39 per visit New Economy. 2015.	Two fewer GP visits per year for injuries sustained in the home. Evidence as above.	£78	67% of 702	As above.	10% (Quartile approach)	£3,669
						PERSONAL SAFET	Y TOTAL	£153,237

⁶³ The British Medical Association. 2014.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
Impact Area T	hree: Emotio	onal wellbeing						
a. Increased level of acceptance of vision impairment condition	Reduced use of mental health services/ counsellors for stress, anxiety or depression	Mental health service costs ⁶⁴ £899 per year New Economy. 2015.	No use of mental health service in year following service The period of one year has been chosen to reflect the findings of reablement literature that shows the effects of reablement services	£899	47% of 702	Glendinning et al's reablement study ⁶⁵ showed that 47% of reablement service users rated their quality of life as good or better compared to 36% in the comparison group after receiving the service.	10% (Quartile approach)	£29,662

⁶⁵ Glendinning et al. 2010.

⁶⁴ It is accepted practice in economic analysis to use the same proxy for multiple outcome indicators where there is a lack of suitable alternatives. This is not viewed as double counting because the proportions of service users likely to experience the outcomes have been taken into account.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			lasting for up to 12 months.					
b. Increased confidence completing daily living tasks independently	Reduced use of mental health services/ counsellors for help with coping strategies for daily living	Mental health mindfulness and CBT treatment (i.e. for confidence) £336 per course Curtis & Burns. 2015.	No use of mental health service in year following service	£336	47% of 702	As above.	10% (Quartile approach)	£18,870
						EMOTIONAL WELL	BEING TOTAL	£48,531
Impact Area Fo	our: Improve	d Social Particip	ation					
a. Service user has increased	Increased no. of	Mental health service costs	No use of mental health service in	£899	50% of 702	Using a quartile approach to estimate	10%	£31,555

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
contact with people in the community, networks and friends	contacts with family, friends, networks and community members	£899 per year New Economy. 2015.	year following service			this proportion - this 50% figure shows what the value would be if 50% of service users experience this outcome.	(Quartile approach)	
b. Service user has improved ability to use communicatio ns technology i.e. telephone, computer	Increased no. of contacts with family, friends, networks and community members	Mental health service costs £899 per year New Economy. 2015.	No use of mental health service in year following service	£899	67% of 702	This outcome was spoken about more by older service users especially in relation to use of telephone with large buttons provided to them by SfS. The proportion is therefore based on the percentage of older people (over 65	10% (Quartile approach)	£42,284

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
						years) in the Sight for Surrey sample.		
							ATION TOTAL	£73,839
Outcomes for	family/carers	a: Reduced anxie	ety about service us	ers				
a. Increased confidence that service user has an additional source of support for vision impairment and decreased feelings of worry/anxiety	Reduced need for accessing mental health services due to stress, anxiety or depression	Mental health service costs £899 per year New Economy. 2015	No use of mental health service in year following service Informal care arrangements have been shown to impact the physical and mental health	£899	50% of 702	Professional staff at SfS who were interviewed spoke about this outcome for family and carers of service users at length. Using a quartile approach to estimate this proportion - this 50% figure shows what the value would be if 50% of service	10% (Quartile approach)	£31,555

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome ⁵⁸	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
about service			outcomes of			users' family		
use			carers ⁶⁶ .			members and carers		
						experience this		
						outcome.		
						OUTCOMES FOR C	ARERS TOTAL	£31,555
						TOTAL		£3,168,022

⁶⁶ Hurstfield, Parashar & Schofield. 2007; Rand, Malley & Nette. 2012.

Appendix Table 2: Costs avoided that accrue to the service user, their family or carer.

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
Impact Area T	hree: Emotiona	Wellbeing						
c. Increased feelings of dignity (esp. re eating)	Increased incidence of eating outside of the home	Cost of a meal out £15 per meal Assumed on London prices i.e. pub/restaurant Primary research with service users found the outcome of dignity to be often linked by service users to mealtimes and eating and therefore we have selected increased incidence of eating	One additional meal out per fortnight This is a conservative estimate of the frequency with which a person may go out to eat.	£390	83% of 702	Service users who spoke about this outcome were more likely to be in the older age group i.e. over 65.	10% (Quartile approach)	£22,724

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
		outside the home as an indicator for this outcome and the cost of a meal out as the proxy.						
d. Increased levels of enjoyment in leisure time	Increased time spent reading or watching films for enjoyment	Cost of a book/DVD Assumed average cost of book or DVD is £10 Primary research with service users found the outcome increased enjoyment of leisure time to be often linked by service users to watching TV, doing crosswords or	Assumes one additional purchase per month for one year		50% of 702	Using a quartile approach to estimate this proportion - a proportion of 50% shows what the value of this outcome would be if 50% of service users experience this outcome.	10% (Quartile approach)	£4,212

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
		being able to read again and therefore we have selected increased time spent reading or watching films as an indicator for the outcome and the purchase of books and DVDs as a financial proxy for this.						
e. Increased sense or feeling of safety	Cost of personal alarm Primary research with service users found increased	Personal alarm installation and weekly charge £281 per year Age UK. 2015	No purchase of personal alarm in the year after vision rehabilitation	£281	50% of 702	Using a quartile approach to estimate this proportion - this 50% figure shows what the value would be if 50% of	10% (Quartile approach)	£9,863

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
	feelings of					service users		
	safety in the					experience this		
	home, linked					outcome.		
	to the ability to							
	complete tasks							
	independently							
	in the home.							
	We've							
	therefore							
	selected							
	reduced							
	purchase of a							
	personal							
	safety alarm							
	(such as							
	Linkline) for							
	use to alert							
	emergency							
	services of a							
	fall or accident							

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
	as the indicator for this outcome. The financial proxy is based on the cost of accessing such services.							
						EMOTIONAL WEL TOTAL	LBEING	£36,799
Outcomes f	or family/carers	: Reduced anxiety	about service us	ers				
b. Reduced burden of informal care	Reduction in loss of income/ pension contributions; costs involved	Home care worker costs £240 per week Curtis & Burns. 2015.	Homecare costs deferred for one year. The burden of providing informal care is	£12,480	25% of 702	Using a quartile approach to estimate this proportion - this 25% figure shows what the value would be if 25% of	10% (Quartile approach)	£219,024

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
	with providing care	(Chosen as a proxy for the care given by informal carers/family)	 well-studied and impacts include: Loss of income. Additional expenditure. Disutility. (Including costs such as social exclusion, erosion of personal relationships and adverse effects on health.) Detriment to pension. 			service users' family members and carers experience this outcome. We've used a more conservative estimate in this case because we did not hear directly from family and carers.		

Outcome	Indicator	Proxy; proxy value; source	Assumed change on indicator	Value of change (per year)	Proportion of service users likely to experience outcome	Evidence to support proportion	Assumed proportion of cohort who experience outcome	£ value (to nearest £)
			• Benefit issues ⁶⁷ .					
						OUTCOMES FOR CARERS TOTAL		£219,024
						TOTAL		£255,823

67 Wanless. 2006.

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