On everybody's lips

A Scottish Lipreading Strategy Group project to improve access to lipreading classes for adults with hearing loss in Scotland

Acknowledgements

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ACTION ON HEARING LOSS Scotland

atla Association of Teachers of Lipreading to Adults

Hearing Link

SCOTTISH COURSE
TO TRAIN TUTORS OF LIPREADING

The Scottish Council on Deafness (SCoD)

Look Listen Think

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Executive Summary

Background

Hearing loss creates communication difficulties. The main impact of hearing loss derives from the effect it can have on everyday inter-personal conversations – at work and at home, face-to-face and by telephone, one-to-one and in groups. The Scottish Government provided £200,000 to the Scottish Lipreading Strategy Group ('the strategy group') (2012-2015) to improve access to lipreading classes for adults with hearing loss in Scotland, in recognition of the role that lipreading classes play in adult hearing rehabilitation and the limited availability of classes across the country. In lipreading classes, adults with hearing loss learn lip shapes and patterns and how to use context to fill in the gaps to help understand what others are saying. Advice, information, communication strategies and peer support are also aspects of lipreading classes.

The strategy group included representatives from a range of stakeholder organisations: Action on Hearing Loss Scotland; Association of Teachers of Lipreading to Adults (ATLA); Hearing Link; Scottish Council on Deafness; Scottish Course to Train Tutors of Lipreading (SCTTL); Scottish Government.

'On everybody's lips' was a 13-month project that ran from December 2013 to December 2014 and was funded by the strategy group as part of its work. It was carried out in Scotland, focused by the Scottish strategic context (eg Gaun Yersel', See Hear). However its findings and outputs will have much wider applicability.

Aim, objectives and methods

The aim of 'On everybody's lips' was to contribute to the strategy group's aim of improving access to lipreading classes for adults with hearing loss in Scotland. It had three objectives:

- Collate and interpret background information and research literature – understand the evidence-base
- Define a pathway for people with hearing loss to access lipreading classes
- Develop a tool to promote access to lipreading classes/education and lipreading class marketing materials.

The project was underpinned by the Social Research Association's ethical guidance and by a multistrategy approach. Basic quantitative and qualitative research methods were used in nine parallel work-strands. Methods included a literature scoping study, written questionnaire, focus groups, word café, Survey Monkey and user reference groups.

Project outcomes and outputs

An exploratory scoping study illuminated a very limited research evidence-base on factors affecting access to lipreading classes. Research from related fields (especially self management of long term conditions and adult education) contributed to the synthesis of (inferred) knowledge in this area.

The importance of the individual's readiness to access rehabilitation as well as service-level features were suggested as noteworthy factors.

A significant gap was identified between the current supply of and potential demand for lipreading classes for adults with hearing loss, based on a conservative guesstimate. The current number of classes (about 50) reflects about 30% of the guesstimated need, even if only 10% of people diagnosed annually with hearing loss took up lipreading classes. This gap will expand as the population of Scotland continues to age, unless the supply of lipreading tutors and classes continue to increase.

New evidence on the timing and triggers to access classes was derived from both a written, postal questionnaire and focus groups for current lipreading class members. While early intervention is often advocated, people who attend lipreading classes generally access them long after the onset of their hearing loss. They find out about them from a wide variety of sources, contrary to received wisdom that this knowledge transmission is the responsibility of GPs and audiologists.

People of working age were under-represented by 2:1 compared to people of retired age among the lipreading class members who completed the questionnaire. Contrary to received wisdom, class members reported that generally they found it easy to find lipreading classes. Generally they began attending soon after finding out about the class. Hearing loss and associated communication problems were reasons given for accessing lipreading classes. For a few, other reasons such as convenience or curiosity were given.

The focus groups produced long lists of people who should know about local lipreading classes and of ways of encouraging more people to attend. Lipreading ambassadors to spread the word may be a way forward. That some people in Scotland have to pay for hearing rehabilitation was noted to be inequitable. Lipreading classes are enabling, empowering and contribute to self management support of adult hearing loss. Class members derive significant benefits from classes, especially in terms of their impact on confidence re-building and social re-inclusion.

Two online surveys of younger adults (16-25 year olds and people of working age) aimed to start the process of understanding why there is low uptake of lipreading classes by this age-group. The first produced too few responses on which to base any generalisations about young adults with hearing loss when they are in transition from school to college or employment. The second set of data was drawn from a much larger Action on Hearing Loss UK-wide survey on managing hearing loss when in work or seeking employment. The Scottish responses generally mirrored responses from across the UK. It was very clear that lipreading classes were a priority for the survey participants in what should be included in a package of support. Those respondents who had attended rated lipreading classes fairly useful or very useful.

Two pathways were developed, one to lipreading classes and the other through lipreading classes. A four-step model very briefly describes the ideal pathway that adults with hearing loss should have the option of working through. The basic requirements for each of the steps are defined.

A study was carried out about the feasibility of delivering lipreading classes in the remote and rural areas of Scotland, where there are currently very few or none. Two possible ways forward are

described – different models of service to reflect local circumstances and, potentially, videoconferencing.

Shared decision-making tools (a decision aid and a quiz) were developed during the project and these may be effective in improving the uptake of lipreading classes. These and other resources developed during the project (via a world café with lipreading tutors and user reference groups with a range of stakeholders) are available to prospective lipreading class members and those who signpost people to lipreading classes at www.scotlipreading.org.uk. A list of known lipreading classes across Scotland is also now available on that website.

Recommendations

For lipreading service development**:**

- Increase general public awareness of lipreading classes
- Focus activity to improve access on people of working age with hearing loss
- Those who signpost adults with hearing loss to lipreading classes should share the decision-making process with the prospective lipreading class member
- Local lipreading service pathways should be developed across Scotland
- Lipreading pathways should be funded and supported by statutory bodies
- Service providers should pilot alternative models of delivery especially in the remote and rural areas of Scotland.

For further research:

- Cost-benefit analysis of lipreading classes
- Evaluation of the effectiveness of the lipreading class decision aid
- The optimal frequency and length of attendance at lipreading classes should be determined
- Could early attendance at lipreading classes reduce the need for hearing aids and/or increase motivation to use hearing aids effectively?

1. Background

1.1 Hearing loss and lipreading classes

Hearing loss is very often a long-term condition. Most adults with hearing loss in Scotland will have experienced a gradual change in their hearing as they age, although some are suddenly deafened. (For a glossary of terms associated with hearing loss, see http://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/glossary/a-to-c.aspx.) Estimates on the prevalence of adult hearing loss in Scotland vary, because of the use of different definitions, populations studied and methods of calculation (eg Action on Hearing Loss, 2011; Akeroyd et al., 2014; Dawes et al., 2014; Hannaford et al., 2005). Action on Hearing Loss (2011) estimates that 1 in 6 adults in the UK have a hearing loss, so for Scotland this means 867,500 people (326,000 of working age and 541,500 who are retired). The See Hear Strategy (The Scottish Government, 2014b) acknowledges that reliable incidence data on hearing loss is not available. Information from waiting times (Information Services Division, 2014) and NHS Audiology Heads of Service suggests that about 50,000 adults in Scotland are diagnosed with hearing loss annually.

Adult-acquired hearing loss can have a significant negative impact on quality of life in many ways if not managed successfully. Hearing loss creates communication difficulties. The main impact of hearing loss derives from the effect it can have on everyday inter-personal conversations – at work and at home, face-to-face and by telephone, one-to-one and in groups. Many of those adults who seek diagnosis and management of their hearing loss are provided with hearing aid(s), either through the NHS or privately. While hearing aid technology has significantly improved, people still often require further hearing/aural rehabilitation to maximise their communication abilities. Lipreading classes provide this opportunity for adults with hearing loss, whether or not they are fitted with a conventional hearing aid or implantable device.

> 'Hearing loss acquired in adult life can have a serious impact on quality of life. This impact results primarily from deficits in the activities of speech perception and communication and the limitations imposed by these deficits on participation in social interactions, in employment, in leisure pursuits, and in the enjoyment of sound. The goal of rehabilitation is to restore quality of life by eliminating, reducing, or circumventing these deficits and limitations.'
>
> 'Adult aural rehabilitation is here defined holistically as the reduction of hearing-loss-induced deficits of function, activity, participation, and quality of life through a combination of sensory management, instruction, perceptual training, and counseling.'
>
> (Boothroyd, 2007, p. 63)

'Lipreading is the ability to recognise lip shapes and patterns and to use context to fill gaps in conversation in order to maximise communication. For many people with hearing loss, lipreading is a vital communication skill. Most people learn to lipread by attending classes taught by a qualified lipreading teacher. Lipreading classes develop the ability to recognise different lip shapes and

patterns and to use context to fill gaps in conversation. Classes also include information about other strategies to encourage attendees to manage their hearing loss and enhance communication, such as knowing how to manage a communication environment (e.g. knowing the best place to sit in a group setting). Many classes will also provide useful information about services and equipment for people with hearing loss. In addition, classes provide an important source of peer support, as people meet others with hearing loss and have an opportunity to share experiences and coping strategies. Therefore, while often referred to as 'lipreading' classes, it is standard practice for courses to provide a package of support for people with hearing loss' (Action on Hearing Loss, 2014).

See Appendix 1 for a diagram that shows the essence of lipreading classes. Lipreading and lipreading classes for adults are far from a new phenomenon, the latter dating back about a century in Scotland. Appendix 2 outlines a brief historical time-line of lipreading and lipreading learning in general and in Scotland. The label 'lipreading class' does not describe all that is offered by this intervention, but does describe the main activity, ie lipreading learning. This label is discussed further in section 3.2.2.

1.2 Scottish Lipreading Strategy Group

The Scottish Government provided £200,000 to the Scottish Lipreading Strategy Group ('the strategy group') (2012-2015) to improve access to lipreading classes for adults with hearing loss in Scotland, in recognition of the role that lipreading classes play in adult hearing rehabilitation and the limited availability of classes across the country.

The strategy group included representatives from these stakeholder organisations:

- Action on Hearing Loss Scotland
- Association of Teachers of Lipreading to Adults (ATLA)
- Hearing Link
- NHS National Audiology Manager (until March 2014)
- Scottish Council on Deafness
- Scottish Course to Train Tutors of Lipreading (SCTTL)
- Scottish Government

They recognised that several components were essential to achieve the aim of improving access to lipreading classes in Scotland, including:

- the need for more trained tutors, so that more lipreading classes could be offered
- defining the lipreading classes pathway and where barriers exist
- understanding the uptake of lipreading classes by adults with hearing loss.

To understand the latter two components better, the strategy group used some of its funding on the project reported here, called 'On everybody's lips', which ran from December 2013 to December 2014

The quotes below come from questionnaire responses from current lipreading class members in Scotland (see section 3.2.1) and reflect the inconsistency of access to lipreading classes experienced

currently by adults with hearing loss in Scotland - people are dependent on classes being available locally to them, being able to find out about classes when they are ready for them and signposters may not be consistently giving out information on local classes.

'Lipreading classes … should be available and free to all who need help in coping with deafness. If I had got this help when I was young then my life would certainly have been different. … A hearing aid is not just the answer to the problem. It needs more than that and a lipreading class helps to make my life as normal as possible and makes me confident in all that I do now.'

'I believe lipreading classes should be more easily available to people with a hearing loss as I know there are a real shortage of classes in certain areas.'

'Although it is primarily a class to learn, it also acts as a social function which is excellent as it can be a lonely existence when you are hard of hearing. In our area we are really lucky to have available classes but would like to see everyone being offered the same service.'

'I feel they should be available to everyone who has a hearing impairment and locally in their area, this is important. Financially not everyone can afford to travel huge distances to attend.'

1.3 'On everybody's lips' - the Scottish strategic context

Improvement in access to lipreading classes is clearly and fundamentally linked to at least two of the Scottish Government's strategic documents: *Gaun yersel!* and *See Hear*. There are also connections with the social inclusion agenda and digital accessibility.

Self management is now a core concept for how people live with long term conditions in Scotland following the publication and implementation of 'Gaun Yersel!' (Long-term Conditions Alliance Scotland & The Scottish Government, 2008). Lipreading classes contribute to successful self management support for adults with hearing loss. Appendix 3 summarises this relationship.

The See Hear Strategy (The Scottish Government, 2014b) was published during the project – it is a strategic framework for meeting the needs of people with a sensory impairment. Appendix 4 illustrates how access to lipreading classes will contribute to successful implementation of this strategy and actions required to make this happen.

Participation in lipreading classes has the potential to contribute to:

- increased social inclusion via increased confidence and independence
- reduced use of mental health services and medication (eg related to depression and anxiety)
- improved self management (and so reduce visits to GPs, audiology and other NHS and social care services)
- decreased dependence on social services
- employment opportunities - reduced job loss, improved ability of adults with hearing loss to do their job or to seek a new one.

1.4 'On everybody's lips'

The aim of the project was to contribute to the strategy group's aim of improving access to lipreading classes for adults with hearing loss in Scotland. This was achieved through basic social research and evidence-based development of resources for prospective lipreading class members and signposters (the range of people who provide adults with hearing loss with information about lipreading classes – see section 3.2.2 and Appendix 10). Both were designed to underpin improved access to lipreading classes in Scotland in the long term.

One of the recommendations arising from previous research by the Long Term Conditions Unit (The Scottish Government, 2009, p. 19) was that 'the act of 'joining in' deserves further examination (approaches which can be used to engage and encourage people to access support)'. 'On everybody's lips' has given attention to this recommendation, specifically for access to lipreading classes.

Sections 2 and 3 of this report describe the project's objectives and work-strands, their outcomes and outputs respectively. The project outcomes and outputs are summarised in section 4. This report finishes with an outline of recommendations that have arisen from the project for service development and for further research (section 5).

2. Objectives and work-strands

'On everybody's lips' was underpinned by the Social Research Association's ethical guidance (Social Research Association, 2003) and by a multistrategy approach (Bryman, 2014). Basic quantitative and qualitative research methods were used in parallel to elucidate the project's objectives. Methods included a literature scoping study, written questionnaire, focus groups, word café, Survey Monkey and user reference groups. The project had three objectives and nine inter-related work-strands of uneven size. These are listed below.

Collate and interpret background information and research literature – understand the evidence-base

- Literature search, review, summary and synthesis as evidence-base for guesstimate of the need in Scotland for lipreading classes and development of resources

Define a pathway for people with hearing loss to access lipreading classes

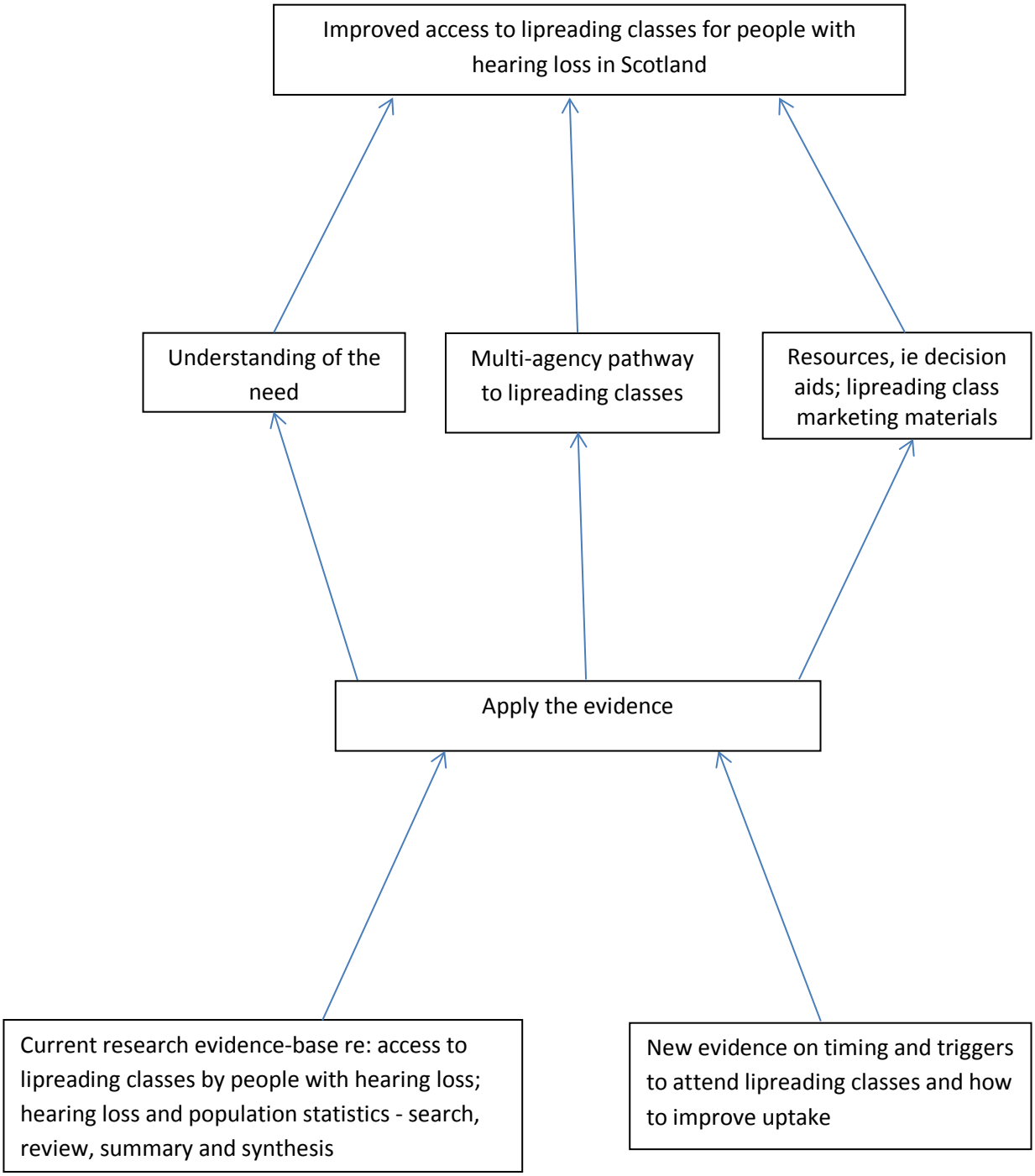
- Lipreading tutors' and current lipreading class members' views and experiences
- Surveys of young adults with hearing loss (16-25 year olds; people of working age)
- Development of definition of the pathway via stakeholder focus groups
- Remote and rural access to lipreading classes: feasibility

Develop a tool to promote access to lipreading classes/education and lipreading class marketing materials

- Development of a decision aid
- Online database of lipreading classes in Scotland
- Collation and development of publicity and marketing materials
- Development of a lipreading learning resources list for use across Scotland

The diagram overleaf illustrates how the objectives and work-strands inter-related and combined to contribute to the strategy group's aim of improving access to lipreading classes for adults with hearing loss in Scotland. The work-strands, alone or in conjunction with others, achieved the project results, outcomes and outputs which are detailed next in section 3.

Project plan flow-chart



3. Project outcomes and outputs

In this section, the project's knowledge outcomes and its physical outputs are presented.

- **Collate and interpret the background information and research literature – understand the evidence-base**

3.1 Understanding of the implications of available (research) evidence

3.1.1 Scoping study - factors affecting access to lipreading classes

A research literature exploratory scoping study was carried out in December 2013 and January 2014 via the Knowledge Network (www.knowledge.scot.nhs.uk) and (Scholar) Google (http://scholar.google.co.uk/). Contact was made with authors of related research in Scotland, other parts of the UK, Denmark, Australia, Canada and the USA to ensure as full a search as possible. The literature synthesis summarised in Appendix 5 is mainly based on qualitative research on factors that influence access to lipreading classes by adults with hearing loss:

- challenges to attending lipreading classes (individual and service-level)
- the best time to attend lipreading classes
- suitability.

Some of the evidence cited came from non-analytic studies, eg case reports, case series, from expert opinion and observational studies without controls (Robey, 2004). Evidence has therefore additionally been widely implicated from associated fields, eg adult hearing rehabilitation/hearing aids, adult education, change theory and long term conditions.

In summary, this literature synthesis, although very preliminary, suggests individual and service-level factors that may influence access to lipreading classes by adults with hearing loss and certainly indicates those worthy of (further) research investigation:

- individual: readiness, ie 'stage of change' (Laplante et al., 2013); suitability; take-up and adherence
- service provision: class availability; physical accessibility; shared decision-making; signposting/referral.

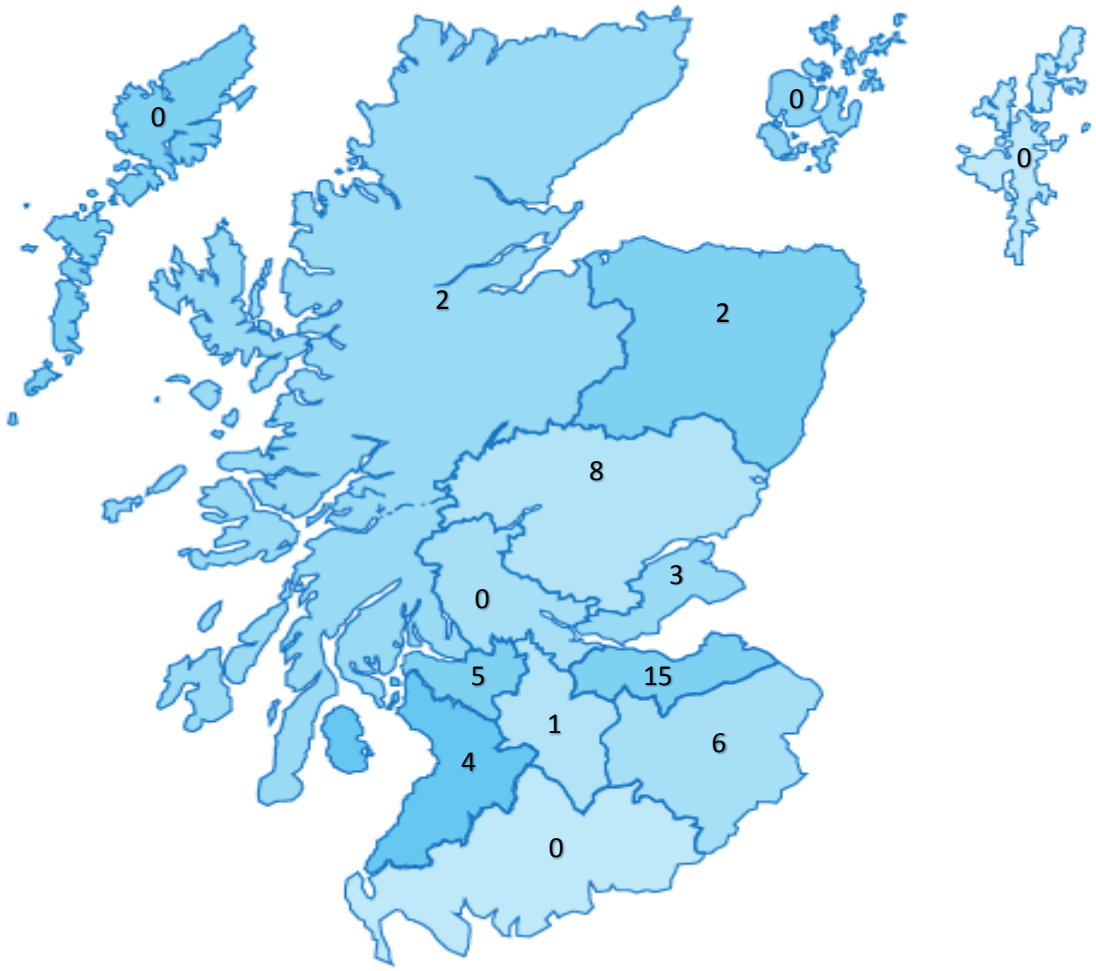
There is some evidence to suggest that 'self-reported hearing disability and stages of change are the two most robust predictors of intervention uptake and successful outcomes' (Laplante-Lévesque et al., 2012, p. 79). 'Good quality intervention is effective if it is applied at the appropriate time, if it takes account of other problems that people have and the context in which they present' (Davis and Davis, 2009, p. 24).

3.1.2 Lipreading classes - supply and potential demand

Lipreading classes are currently a very scarce resource in Scotland. Information on classes from the 2013 SCTTL survey lipreading tutors in Scotland was provided to the strategy group in February

2014. The map below shows the number of lipreading classes known to be running at that time. (Although divided by health board area, this is for convenience – most lipreading classes in Scotland are not currently funded by the NHS.)

Geographical distribution of lipreading classes across Scotland, February 2014



The map above therefore shows the distribution of the 46 lipreading classes known to be running in February 2014 by health board areas in Scotland. This service has not been centrally planned and so the pattern of provision reflects the successful efforts of individual tutors to obtain funding to run classes locally to them. The pie charts and the table in Appendix 6 show the current mismatch between overall population size, population and number of lipreading classes by Scottish health board area. NB This number of classes is fluid as funding is often not permanent and so, in any year, they may or may not run.

Based on 2011 census figures (National Records of Scotland, 2013), Borders and Dumfries & Galloway have the same population density, Borders has 25% less population but had six classes to

none in Dumfries & Galloway. Ayrshire & Arran and Forth Valley have the same population density. Ayrshire & Arran has a slightly larger population and four lipreading classes to none at the time in Forth Valley. Greater Glasgow & Clyde (with 25% of the total population of Scotland) has nearly twice the population and is twice as densely populated as Lothian and had five classes (compared to 16 in Lothian). There is also disparity between Tayside and Grampian – they have similar populations but Tayside has eight to Grampian's two known classes. There was one lipreading class in Lanarkshire, compared to three in Fife which has similar population density but nearly half the population of Lanarkshire. Overall, lipreading class distribution across Scotland is very inequitable.

Of the 21 tutors known to be providing classes in February 2014, 70% had one or two classes and none did more than four classes a week. All the classes were running between Monday and Friday. Approximately half were run in the morning, a quarter in the afternoon and a quarter in the evening. Appendix 6 also shows the range of premises in which lipreading classes were being delivered – mainly in local community locations rather than clinical settings. This reflects the range of current funding sources.

The need for lipreading classes increases with age since incidence/prevalence of hearing loss increases with age (eg Akeroyd et al., 2014). Thus the need for lipreading classes in Scotland will continue to increase over time as people live longer - 'by 2037 the Scottish population aged 75 and over is projected to increase by 86 per cent' (National Records for Scotland, 2014, p. 23). Increases for the 25 year period from 2012-2037 are projected for those of retired age in all health board areas (whereas for children and adults of working age, projections include increases in some areas and decreases in others).

The population in general is projected to grow by 9% over that period. As people age, multi-morbidity increases, ie the presence of two or more medical disorders (Barnett et al., 2012). Davis and Davis (2009, p. 23) note that 'co-pathology is a major phenomenon with hearing problems'. Co- or multi-morbidities may have a negative influence on the ability of adults with hearing loss to access lipreading classes as currently delivered in face-to-face groups.

No research evidence directly related to the uptake of lipreading classes by people with hearing loss was found. Figures re: hearing aid uptake will have some relevance here but this is limited by the very different nature of these two hearing rehabilitation interventions. While both require learning, their uptake requires other quite disparate attitudes, behaviours and cognitive skills. Reports on hearing aid uptake vary, eg 41.1% (Adshead, 2012), 43% at six months follow-up (Laplante-Lévesque et al., 2012), 11% at two years after screening (Thodi et al., 2013). Uptake of group communication programmes (eg Hickson et al., 2007) may provide a better comparator to lipreading classes. Laplante-Lévesque's (2010) 153 participants were offered rehabilitation options shortly after diagnosis of hearing loss. These included a hearing aid, a group communication programme (the contents delivered either in a group or one-to-one) and no intervention. 27% opted for a group communication programme (delivered either in a group or one-to-one). Of those, 24% chose the group communication programme (ie 10/153 or 6.5% overall) (NB These participants had to opt either for a hearing aid, communication programme or no intervention.)

Estimates of potential uptake of lipreading classes can also be inferred from research in related fields, eg 11% of 50-69 year olds take part in informal learning (in England) (Jenkins and Mostafa,

2012). Research from other long term conditions suggests that the uptake of self management classes is generally relatively low, eg hip or knee osteoarthritis – Ackerman et al. (2013); diabetes - Cauch-Dudek et al. (2013); cardiovascular disease – Laws et al. (2013). Their uptake figures ranged from 10 to 30% of possible participants.

The guesstimated gap between current supply of and potential demand for lipreading classes for adults in Scotland: 325-50 = 275 classes.

This number is based on the following calculation using rounded figures -

- Estimate of adults newly diagnosed by NHS audiology in Scotland with hearing loss = 50,000 per annum approximately. This has been taken as the indicator for new potential lipreading class members per annum.

Approximately 46,000 NHS hearing aids are issued/waited for per annum in Scotland following initial adult audiology assessment (Information Services Division, 2014) plus an estimated 4,000 adults are diagnosed with hearing loss but not fitted with a hearing aid (estimate from NHS Audiology Heads of Service – they estimate that 85-95% of those adults diagnosed with hearing loss are fitted with a hearing aid).

- So a conservative guesstimate of potential demand per annum for lipreading classes in Scotland based on Laplante-Lévesque's (2010) finding for a group communication program is 6.5% of 50,000 adults = 3,250 people per annum, ie 325 classes of 10 people. (If based on uptake of self management classes for other long-term conditions then 11% - 550 classes, 25% - 1250 classes, 50% - 2500 classes.)

- Estimate of current lipreading class capacity – 50 classes x 10 people per annum = 500, ie 1% of 50,000. (This presumes that people attend lipreading classes for a year, whereas two years reflects current expert opinion on the optimal length of attendance.)

This guesstimate presumes an even geographical distribution of population – classes in remote and rural areas are unlikely to be logistically viable as currently delivered. It presumes that the people who go to NHS Audiology for hearing assessment are the same as the population of people who would benefit from lipreading classes. In fact, people with a mild hearing loss can also benefit from lipreading classes as can people with hearing loss for whom hearing aids are not suitable. The guesstimate does not include those people fitted with hearing aid(s) by non-NHS providers. People will not generally be ready for attending lipreading classes within the first year post-diagnosis of hearing loss (see section 3.1.1 and Appendix 5).

The guesstimate also does not overtly take account of the relative percentages of people whose personal characteristics would make lipreading classes (un)suitable for them, ie individuals' characteristics that meet 'optimal candidacy criteria' or not (see section 3.1.1 and Appendix 5). This may have covertly influenced the relative uptake rates in Laplante-Lévesque (2010). The impact of relevant co-morbidities and multi-morbidities are also not factored in as those data are not available. This guesstimate is based on incidence not prevalence, ie new class members per annum rather than on Action on Hearing Loss' (2011) prevalence estimate of 867,500 adults in Scotland

with hearing loss. How many more tutors are needed to meet this guesstimated potential demand would depend in part on the (extra) capacity of current tutors.

In summary, the gap between the current supply of lipreading classes in Scotland and a guesstimate of need is significant and will continue to increase without the development of a sustainable pathway through lipreading classes (see section 3.4).

- **Define a pathway for people with hearing loss to access lipreading classes**

3.2 New evidence on timing and triggers to access classes

Little previous research was found on when, how and why adults with hearing loss accessed lipreading classes (see section 3.1.1). This information is central to how classes should be marketed to maximise uptake. To improve our understanding of these factors, a written postal questionnaire for current lipreading class members was developed and piloted with the help of the Forth Valley Lipreading Self-help Group. Focus groups held at lipreading classes enabled discussion of questions relating to access to lipreading classes.

3.2.1 Lipreading class member questionnaire

This written postal questionnaire was issued between February and May 2014 by agreement of lipreading class tutors, via the tutor and/or during class visits by the Research Officer. A copy of the questionnaire is available on request, by emailing scotland@hearingloss.org.uk. A total of 21 of the 46 classes known to be running in February 2014 received questionnaires (ie 46%). Of the 211 class members this involved, 63 were men (30%) and 148 women (70%). The proportion of male and female potential questionnaire respondents approximately parallels the estimated one-third to two-thirds male to female adult education participants in Scotland (Rob Mark, Scottish Parliament Cross-Party Group - Adult Learning, March 2014), rather than defining a gender difference in the prevalence of hearing loss. Akeroyd et al's (2014) estimates show that the proportion of men and women with hearing loss in Scotland aged between 18 and 80 varies by decade of life. Overall however, their figures show an almost even split between the genders (ie men – 53%, women – 47%).

A total of 147 completed questionnaires were returned, ie 70% - an excellent return rate for a written postal questionnaire. This number represents about a third of people who were known to be attending lipreading classes in Scotland at the time. There was a similar return rate by men and women (male return rate = 65%, female return rate = 69%, 2% did not answer the question re: their gender).

Respondent demographics are shown graphically in Appendix 7 and summarised below. Lipreading tutors confirmed that these demographics are representative of current lipreading class members generally in Scotland. Responses to the question relating to the timing post-onset of hearing loss of when information about lipreading classes are also shown graphically in Appendix 7, as are responses re: waiting time, length of attendance at lipreading classes and travelling distance.

- *Current lipreading class member demographics*

Three-quarters of respondents had experienced gradual hearing loss and about a fifth had sudden onset of hearing loss. Five did not answer this question. Of the three 'other' responses, one reported no hearing loss and the other two reported hearing impairment from childhood. A few respondents reported gradual hearing loss after an initial sudden hearing loss.

The largest number of lipreading class members by age was in the 66-75 year old age-bracket, followed by 76-85 and 56-65 years. There were very small numbers of respondents (10 or fewer) in the 16-25, 26-35, 46-55 and 85+ age-brackets. Approximately 85% of respondents were retired. Table 1 shows a breakdown by working/retired age of questionnaire respondents and Action on Hearing Loss (2011) prevalence figures on hearing loss in Scotland for those age-groups. Based on the age-brackets of lipreading class members who completed questionnaires, people of working age are currently under-represented in lipreading classes in Scotland ($X^2 = 9.4$, df = 1, $p < 0.005$), by a ratio of approximately 1:2 compared to people of retired age (taken as 65 years old +). So, half as many people of working age attend lipreading classes than would be expected from the prevalence statistics.

Table 1 Working age and retired age figures

	Questionnaire respondents	**Action on Hearing Loss (2011) (thousands)**
Working age	37	326
Retired age	110	541

To maintain respondents' anonymity, an approximation of their geographical location was taken as the health board area in which their lipreading class was located. Questionnaires were returned from all the geographical areas in which they were distributed. None were issued in Grampian, Lanarkshire, Highland or Greater Glasgow & Clyde. There were no known classes at the time in Orkney, Forth Valley, Shetland, Western Isles or Dumfries & Galloway (see section 3.1.2).

Approximately 70% who stated how long post-onset of hearing loss they sought information about lipreading classes chose 'years later' and about a quarter between 'after a few months' and 'after about a year'. About 3% chose 'immediately'. Ringham's (2013) study suggests that earlier access to lipreading classes may however be more beneficial than later access – 'Participants who had experienced hearing loss most recently, reported the greatest benefit. Information imparted through the course was more likely to be unfamiliar to participants with a more recent hearing loss. Participants who had lived with hearing loss for a considerable time had, during that period, managed to acquire some of the information and knowledge delivered through the course' (p. 30).

All but two of the respondents who gave a time-span started their class within a few months of finding out about it (cf the national NHS waiting times directive), with about three-quarters starting within a month. The two outliers' responses were: 'over a year as my work wouldn't permit it and I had just missed the start of a block' and 'within a year'. There were 14 respondents who did not give a time-span answer. The range in this sample of how long respondents had been attending lipreading classes was from less than one to 20-25 years. Approximately 60% of the respondents

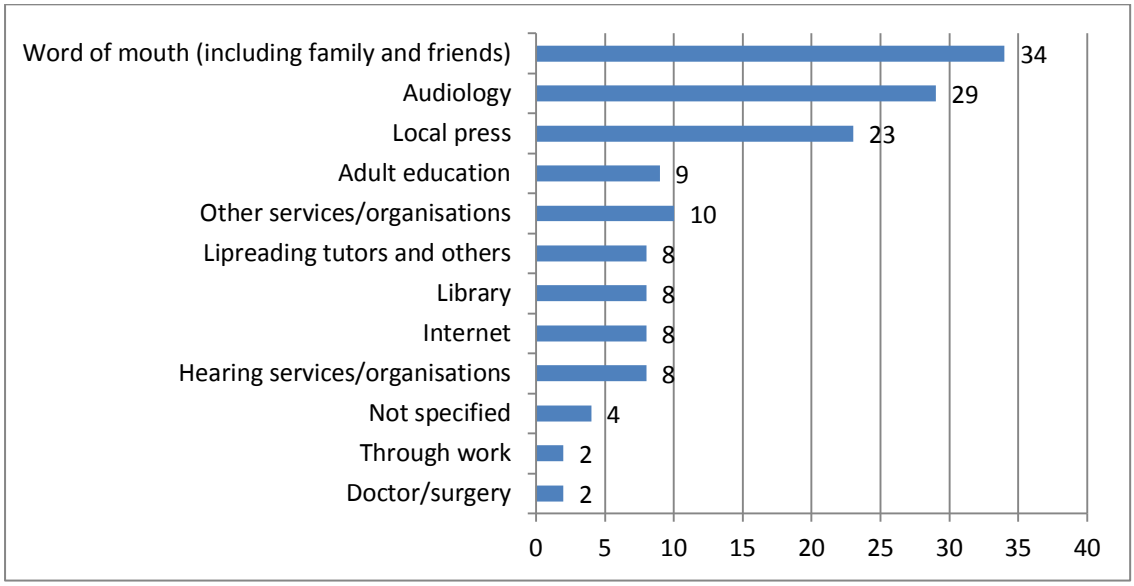
had been attending their lipreading class two years or less. Those attending for more than two years might be candidates for services further along the pathway, ie communication support groups and self-help groups (see section 3.4). About two-thirds of respondents attended a class within five miles of their home, while about 85% of respondents attended a class within 10 miles of their home.

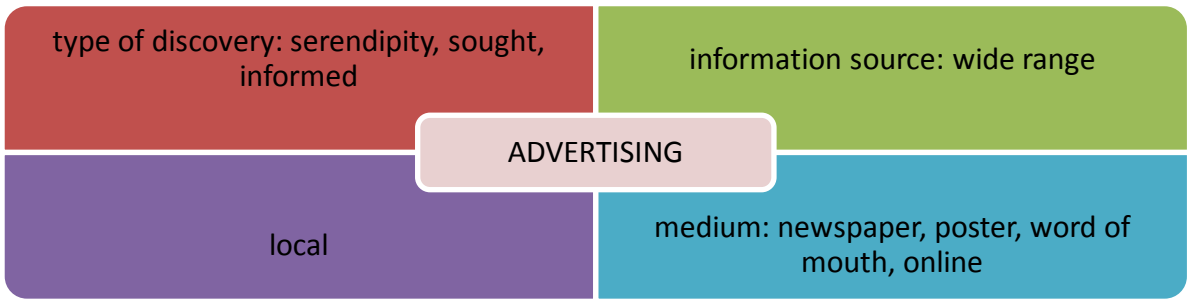
In summary, current lipreading class members in Scotland are in general mainly older, retired people (twice as many women as men) with a long-standing gradual hearing loss who find a local class relatively easily and begin to attend soon after.

Responses relating to the following questions were analysed using thematic analysis (Braun and Clarke, 2006). Examples of responses that illustrate the themes identified are given in Appendix 8.

- *How did you find out about the lipreading class you are attending?*

Questionnaire respondents found out about their lipreading class from a wide range of sources (see the graph below).





Themes relating to the mechanisms by which respondents found out about classes are shown above and examples of responses are given in Appendix 8. Advertising was key. Different advertising media were noted, eg local newspaper, a poster in various locations, word of mouth or online. Some people found out by serendipity, some were informed and some sought out information about

classes. Information that was local was also important. The breadth of individual difference in how people found out about their local lipreading classes mirrors the breadth of ease with which they found out. This reinforces the need for information to be available consistently across the country and via a range of sources, not only GPs and audiologists.

- *How easy was it to find out about the class?*

Table 2 Level of ease in finding out about local lipreading classes

Level of ease	No.	Quote example
Very easy	48	'Very easy - I was given phone number to contact.'
Quite easy	15	'Relatively easy - but only by my sporadic visits to our local library.'
Easy	29	'I had not even realised there was such a thing but once I was given the info it was easy.'
Not very easy	2	'Enquired hard of hearing group then met with another hard of hearing person who knew of tutor and how she worked.'
Not easy	20	'I don't think lipreading classes are easy to find out about. Very little info anywhere. Even in the Community Education brochure there is no further info on what is involved in the class and who would benefit from them.'
'By chance'	17	'It was sheer coincidence I saw the paper. I had not seen anything at all advertising about classes.'
Not stated	16	
Total	147	

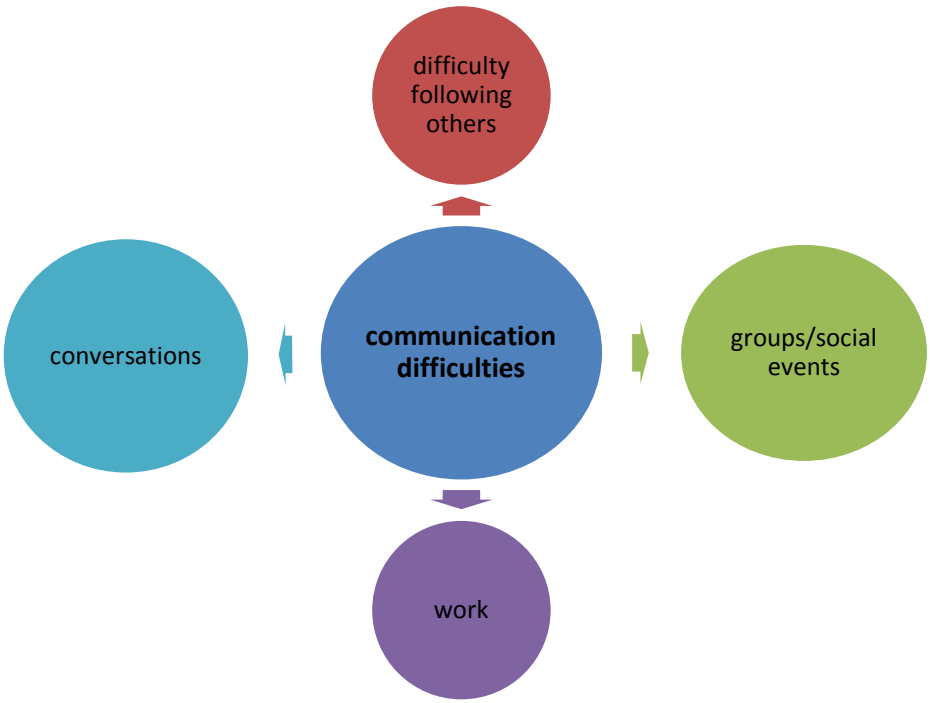
The data in Table 2 above suggest a range of perceived ease with which respondents found out about their class. Some people (16) did not rate the level of ease with which they found out about their class, but instead described the discovery process. Of the 131 who did, 70% found the process very easy, quite easy or easy and about 17% indicated that it was not very easy or not easy. Another 13% approximately however commented on finding a class by chance. While individuals will vary in their assessment of ease, these results indicate that there was inconsistency across the country in the availability of information about local lipreading classes.

- *What influenced your decision to try lipreading classes when you did?* and *What was the main reason you decided to go to lipreading classes when you did?*

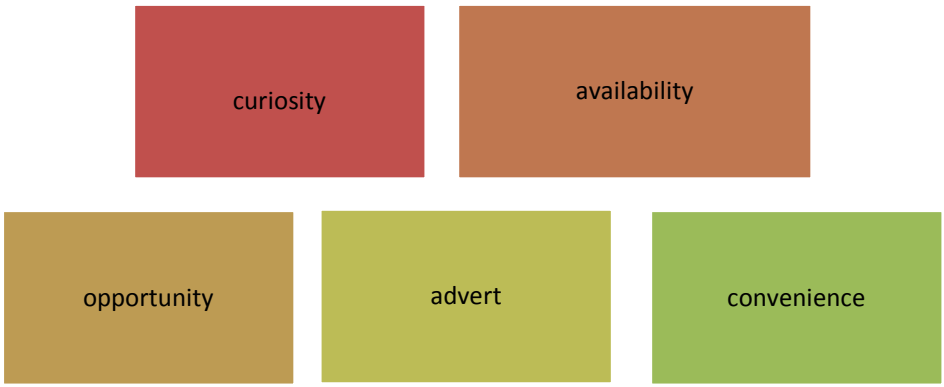
The triggers to attend reported by the questionnaire participants include those already described in Redmond (2011b) and a range of others. There were two main themes in the responses to the above questions: hearing loss and hearing loss-related communication difficulties. These are shown

diagrammatically overleaf and some examples of responses are given in Appendix 8. The first diagram shows that range of themes related to hearing loss that were given as reasons for going to lipreading classes.

More specific aspects of communication difficulties were described by many respondents and where the communication difficulties arose. These are shown in the diagram below and examples of responses are given in Appendix 8.



The other themes that arose from responses about what influenced lipreading class members to attend are shown in the diagram overleaf – some people were influenced by others, while opportunity, advertising and chance played a part for some. In addition a few attended classes to help others. Examples of responses under these themes are given in Appendix 8.



The questionnaire also included questions relating to the benefits that lipreading class members obtain from attending and an opportunity to add any other comments. A brief summary of Thomson's (2010) research on the benefits of lipreading classes and diagrams based on the themes arising from the current questionnaire's responses on benefits can be found in Appendix 9.

3.2.2 Lipreading class focus groups

Eighteen lipreading classes were visited between March and May 2014 (about 40% of the total number in Scotland known from the SCTTL survey in February 2014). This followed an emailed request to visit classes. Eight tutors replied (about 30% of tutors) that they were willing for the Research Officer to visit their class(es). Classes were visited in the following health board areas: Lothian, Ayrshire & Arran, Fife and Borders. A total of 146 lipreading class members were consulted. Each class provided unique ideas, suggestions and perspectives for the project.

After a short introduction to the project, the class members discussed five questions in pairs/threes then the answers were discussed as a whole group, with the opportunity to feed in any other views and opinions not covered by the questions during the discussion.

- *Who are the main people who need up-to-date information to signpost people to lipreading classes?*

The first question produced a very wide range of possible signposters who should have up-to-date information about lipreading classes (see Appendix 10). This supports the project's title. The signposters have been grouped into: NHS/health; local authorities/government organisations; individuals; private/Third Sector/other.

The discussions produced the idea of 'lipreading ambassador', ie current or past lipreading class members who would be able and willing to 'spread the word' about lipreading classes. Guidance,

tools and resources for such a role for supporting people with arthritis is discussed in Centers for Disease Control and Prevention (2013).

- *What's the best word for people going to lipreading classes? … why?*

By far the most popular choice was 'lipreading class member', with 'lipreading learner' the second most popular. Alternatives to lipreading class member, lipreading learner and lipreading student were offered – see Appendix 10. '(Lipreading) group member' was the only alternative offered more than once.

- *Is 'lipreading classes' the right name? If not, what would you suggest instead?*

The most popular response agreed that 'lipreading classes' was the right name ('lipreading group' came second (see Appendix 10). Several groups mentioned that lipreading classes as a term does not cover all aspects of lipreading class activities. Many suggested an alternative – some very innovative.

This suggests that lipreading class is the most acceptable label. However, it is not known whether those adults with hearing loss who opt not to go to lipreading classes do so at least partly because of the label. 'Lipreading' does not fully describe what goes on and the term may be off-putting to some. 'Class' may have negative connotations for some.

- *What are the best ways to practise lipreading in between classes and when you've finished going to classes?*

The responses to this question (see Appendix 10) have been used as the basis for the 'hints and tips' resource for people who are unable or not wanting to attend a lipreading class (see Appendix 11).

- *How can we encourage more people to go to lipreading classes?*

Methods suggested for encouraging more people to go to lipreading classes have been grouped into: advertising/publicity; talks/individuals; other. The most common responses (see Appendix 10) were: more local advertising and publicity; advertising in local and national media (especially local papers); word of mouth; have more classes!

- *Other comments and suggestions*

Cost (ie for advertising and attendance at some classes) was mentioned by several classes, in particular the inequity of some people having to pay for lipreading classes, which may be a barrier to participation. Other one-off comments and suggestions were made by different groups (see Appendix 10).

3.3 New evidence on the views of people with hearing loss of working age

The prevalence of hearing loss in the current 18-30 year old population in Scotland is estimated to be 3500 (females = 3,000, males = 500). This figure is based on a definition of hearing loss of 35dB or

more in the better of the two ears (Akeroyd et al., 2014). As shown earlier (see section 3.2.1 and Appendix 7), the number of young adults with hearing loss who attend lipreading classes is extremely low. To begin to understand the reasons for this low uptake, a Survey Monkey questionnaire about lipreading classes was designed for 16-25 year olds with hearing loss - with the support of Action on Hearing Loss Scotland staff who work with this age-group (www.actiononhearingloss.org.uk/about-us/scotland/services-in-scotland/on-the-move.aspx). A copy of the questionnaire is available on request, by emailing scotland@hearingloss.org.uk. Some of the questions had an emphasis on internet use to establish whether online lipreading learning might be a popular option for young adults (see also section 3.5 and Appendix 16). The survey remained open from April to September 2014 inclusive but received only five responses. It is not possible to generalise from this very small sample size to the wider population of that age. The results are summarised in Appendix 12.

National Deaf Children's Society's (2014) research revealed significant differences in outcomes for deaf young people compared to hearing young people across education, training and employment. While implications cannot be drawn for this age-group from this survey, focused engagement about lipreading classes with young adults with hearing loss in Scotland would be beneficial in providing further support for them into further education and/or employment.

Another, more successful, online survey was funded by the UK Government Department for Business, Innovation and Skills (BIS) as part of a currently ongoing Action on Hearing Loss project 'Managing hearing loss when seeking or in employment' (due for completion in 2015). This project will see the development of a package of support for people with hearing loss that will include lipreading and other related services. Its online survey was open for about six weeks from August to September 2014 and targeted adults of working age. Questions concerned a wide range of support mechanisms for people with hearing loss who are in work or seeking work. These included: lipreading; communication strategies and tactics; emotional and peer support; equipment; hearing aid support; information re: hearing loss at work; other information for people with hearing loss. (Arguably, lipreading classes provide all the types of support listed to greater or lesser degrees.)

The survey attracted 565 responses from people with hearing loss in employment or seeking employment across the UK. This figure included 56 responses in total from Scotland (23 men and 33 women), ie about 10% of the total number of responses. The Scottish figures on questions relating to access to lipreading have been extracted with permission from the full survey results and are shown in Appendix 13. The demographics and results about access to lipreading were broadly consistent with the UK patterns, eg age range, duration of hearing loss, gender balance, whether or not in work, awareness of the Access to Work scheme, effect of hearing loss on work and employment, social activities, self-confidence and relationships with family and friends.

In summary, the Scottish respondents ranged in age from 16-65+ years, with most aged 35+ years and the majority in late middle age. About three-quarters agreed or strongly agreed that their employment opportunities were limited because of their hearing loss and that they sometimes feel isolated at work because of their hearing loss. About 17% had been given information about lipreading by their audiologist/private hearing aid provider. This compares well to the figure of 20% of current lipreading class members in Scotland who found out about lipreading classes from

Audiology (see section 3.2.1). About a third of the BIS survey Scottish respondents had used lipreading classes. They had all found them fairly useful or very useful. Group and 1:1 sessions rated very similarly and more highly than online support as possible ways of delivering lipreading training (see also section 3.5 and Appendix 16). Lipreading was the most popular choice for inclusion in a support package for people with hearing loss who are in or seeking work, closely followed by information on hearing loss at work and equipment. (The hierarchy of priority was slightly different in the UK-wide data.) There was a spread of responses relating to the ideal timing of when information about lipreading should be provided in relation to the diagnosis of hearing loss from immediately on diagnosis to years after. This spread may relate to individuals' stage of change re: their hearing loss and resultant readiness to take up self management support (see also Appendix 5). It differs from the actual timing of when adults with hearing loss in Scotland sought information about lipreading classes (see Appendix 7) – mostly years after onset of their hearing loss.

3.4 Multi-agency pathway to lipreading classes

The See Hear strategy (The Scottish Government, 2014b) calls for care pathways as a central tenet of services to people with a sensory impairment. For example,

6.3 *'Clear care pathways across a range of conditions that encourage and guide the individual through their engagement with assessment processes and service provision, and support them in managing their own conditions'.*

7.7 *'A clearly developed set of local sensory impairment care pathways that are agreed by key stakeholders and understood by all clinicians, assessors, service providers and, most importantly, the person themselves'.*

Two pathways were developed during the project through a series of stakeholder consultations:

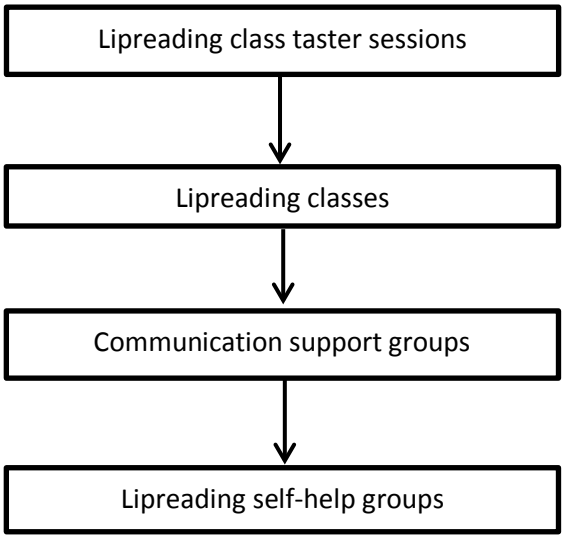
- a pathway to lipreading classes (see Appendix 14)
- and a pathway through lipreading classes (see Appendix 15).

The traffic light colouring in the pathway in Appendix 14 reflects that many adults with hearing loss will not be ready for lipreading classes before or at the time of diagnosis (see section 3.1.1 and Appendix 5). The presumption had been that adults with hearing loss are signposted to lipreading classes by GPs and audiologists. However, evidence from the lipreading class member questionnaire shows that people find out about lipreading classes from a wide range of sources and at a wide range of time post-onset of their hearing loss (see sections 3.2.1 and 3.2.2).

Currently in many areas of Scotland there is no pathway through lipreading classes. Where classes exist, they may provide primarily lipreading learning or longer-term lipreading practice and support. Some courses of classes are time-limited, some are not. In some areas, classes focus on lipreading learning while in others on lipreading practice. The lipreading service delivered through West Lothian Council's Adult Basic Education provides a model for how adults with hearing loss across Scotland can work through different types of service provision associated with lipreading learning: http://www.westlothian.gov.uk/article/2476/Lipreading 9 (accessed 7.10.14) (also see Appendix 15).

Their pathway does not include the final stage of a lipreading self-help group. These already run in Forth Valley and Grampian health board areas. Another model of a pathway through lipreading classes operates at City Lit in London: http://www.citylit.ac.uk/courses/deaf_education/Lipreading_and_managing_hearing_loss (accessed 29.10.14).

Individuals of course will vary in how much of the pathway they wish or require to work through – some may decide not to enter the pathway, some will wish to participate in only the initial parts of the pathway, others will benefit from participating in the entire pathway. The diagram below shows the four stages of the lipreading learning pathway. The titles are suggestions only.



The relationship between the four stages and the characteristics of each stage are summarised in Table 3 overleaf.

Currently in Scotland lipreading classes are mostly delivered as weekly two hour sessions, spread over the year by academic terms. Lipreading tutors vary in their opinion on the optimum length of time for people to attend lipreading classes, but the general consensus based on their experience is two years. There is no known research evidence on the optimal length of time people should attend lipreading classes for maximum benefit. This is likely to vary with the individual person. Ringham (2013) reports improvement in scores on an objective assessment of lipreading ability in all of her study participants who completed a thirty week course of weekly two hour sessions. People in her study came to classes with different levels of base-line ability in lipreading, learning capacity etc and so improved their lipreading ability to different degrees while attending classes.

Two types of learning are now distinguished. Formal learning can be defined as 'learning that is intended to lead to a nationally recognised qualification even if the qualification is not achieved' (NALS 2010, quoted in Mark and Soulsby 2014, p. 135). Informal learning on the other hand includes '… participation in education, music and arts groups and evening classes, and … participation in sports clubs, gym and exercise classes.' (Jenkins and Mostafa, 2012, p. 5).

Lipreading tutors in Scotland generally feel that class members should not be assessed, eg '*People should not be tested on how to cope with a disability. However this can be achieved subtly by the tutor*.' The impact of lipreading classes for the individual is currently usually assessed via self-reported questionnaires. This practice marries well with the benefits reported by lipreading class members (see Appendix 9).

Table 3 Brief definitions of the four elements of the pathway

Characteristic	Taster sessions	Lipreading classes	Communication support groups	Lipreading self-help groups
Precursor	none	taster session	lipreading class	lipreading class
Run by	statutory service	statutory service	statutory service/third sector	third sector
Led by lipreading tutor	yes	yes	no, but regular visitor/speaker	no, but very occasional visitor/speaker
Led by a trained facilitator			yes	
Led by the members				yes
Time-limited	6 sessions	up to two years @ 30 weeks per annum		
Main focus on learning lipreading	yes	yes		
Focus on practising lipreading		yes	yes	yes
Main focus on ongoing practice and support				yes
Lipreading a central element	yes	yes	yes	yes
Type of learning	informal	informal	informal	informal
Age (no upper limit)	adult	adult	adult	adult
Cost	none to user	none to user	none to user	none to user
Evaluated and monitored	yes	yes	yes	yes

3.5 Understanding of the feasibility of lipreading class delivery in remote and rural areas

Population density, defined as the number of usual residents per square kilometre, varies across the 27 countries of the EU from 1305 (Malta) to 18 (Finland). Scotland's population density is 68 (National Records of Scotland, 2012) - among the lowest in the EU. Section 7.7 of the See Hear Strategy (The Scottish Government, 2014b, p. 18) states that 'to ensure that pathways work as effectively as possible for people with a sensory impairment, they must be confirmed at a local level to take account of local circumstances, demographic and ethnic profiles.' The remote and rural nature of much of Scotland provides particular challenges for the delivery of health and social care in those areas. This includes the delivery of lipreading classes.

Current situation re: lipreading classes in remote and rural areas of Scotland

While lipreading classes are currently in scarce supply across Scotland, the requirement for local pathways is particularly pertinent in the remote and rural areas of Scotland (see section 3.1.2). There were no known lipreading classes in Orkney, Shetland, Western Isles or Dumfries and Galloway health board areas in February 2014. There were two classes known to be running in Highland - both in Dingwall - and two in Grampian. This distribution, although typical over time, is fluid and not caused by a single factor (ie not related to lack of need). For example, lipreading classes in Dumfries and Galloway no longer run as funding was withdrawn, lipreading classes used to be held in Thurso and Wick but the tutors, whose training was funded by Caithness Deaf Care (now Hearing and Sight Care), resigned because of age or other personal reasons. These very limited numbers of classes are not specific to remote and rural areas – there were only about 50 classes known in total across Scotland at that time. However, the provision of lipreading classes in remote and rural areas is logistically very different from provision in the more densely populated areas of Scotland and so presents different challenges and possible solutions.

Challenges for health and social care service delivery in remote and rural areas of Scotland are relevant also for lipreading classes and include:

- Low population density
- Population ageing
- Geographically scattered thinly, in pockets
- Distances to travel/public transport limitations, cost and time taken
- Adverse weather conditions – long and dark winters
- Culture of self-reliance (Macdonald, 2005).

Additional challenges specifically for lipreading class delivery include:

- Potentially low number of adults with hearing loss within reasonable travelling distance of a class venue who are ready for lipreading classes at the same time – so classes as delivered

currently in other areas of Scotland are unlikely to be logistically or financially viable (certainly on an ongoing basis).

- Lack of lipreading tutor availability in remote and rural areas.
- Group dynamics and support, local ongoing facilitation if classes are not delivered face-to-face.
- Lack of Broadband capability currently in some remote and rural areas to support the videoconferencing quality required for delivering lipreading learning remotely.

Possible technology-mediated and/or alternative models of service delivery especially in remote and rural areas are discussed in Appendix 16.

Remote and rural access - conclusion

Any future development of lipreading class provision in remote and rural areas should be based on local circumstances and needs, eg availability of lipreading tutors and classes may be the way forward for example in places the size of Thurso and Wick. One-to-one tutoring, classes by videoconferencing or other methods of online learning may be the way ahead for lipreading learning for (younger) adults with hearing loss in remote and rural communities with smaller populations and the necessary telecommunications infrastructure (and for those unable to attend classes for other reasons, eg physical limitations, anxiety). Fundamentally, any future developments would be dependent on additional tutor availability, digital infrastructure and funding to underpin lipreading classes and/or one-to-one learning via any of the models outlined in Appendix 16.

- **Develop a tool to promote access to lipreading classes/education and lipreading class marketing resources**

3.6 Shared decision-making via a decision aid

> 'Shared decision making is a collaborative process through which a health care professional supports a patient to reach a decision about their treatment. The conversation brings together the clinician's expertise, such as the treatment options, risks and benefits, with the areas that the patient knows best: their preferences, personal circumstances, goals, values and beliefs. The approach often involves decision support materials – evidence-based information resources, including patient decision aids, brief decision aids, and option grids – that are designed to help individuals weigh up their options' (Ahmad et al., 2014, p. 4).

Shared decision-making is a practice used in making healthcare decisions in which the health professional and patient have a detailed conversation to help the patient make a choice or decision about a particular health care intervention, eg surgery v. chemotherapy, and is an aspect of the person-centred driver of NHS Scotland's Quality Strategy (Scottish Government, 2010). It replaces a paternalistic approach to healthcare decision-making with a client-centred one (The Health

Foundation, 2014, p. 5) and is often supported by the use of a decision aid or option grid that sets out information, benefits and problems associated with the intervention(s). 'They make the decision explicit, describe the options available, and help people to understand these options as well as their possible benefits and harms. This helps patients to consider the options from a personal view (e.g., how important the possible benefits and harms are to them) and helps them to participate with their health practitioner in making a decision' (Stacy et al., 2014, p. 4). See also for example Elwyn et al. (2012) and Elwyn et al. (2013). '**The model has three steps: a) introducing choice, b) describing options, often by integrating the use of patient decision support, and c) helping patients explore preferences and make decisions.** This model rests on supporting a process of deliberation, and on understanding that decisions should be influenced by exploring and respecting "what matters most" to patients as individuals, and that this exploration in turn depends on them developing informed preferences' (Elwyn et al., 2012, p. 1361).

The use of a decision aid has been compared to 'usual practice' in medical research studies, eg MMR vaccination uptake (Tubeuf et al., 2014) and cancer screening (O'Brien et al., 2009) and found to increase uptake, reduce anxiety and increase knowledge. This comparison has not been found yet in self management research. Ahmad et al. (2014) however bring together evidence on shared decision-making and self management in health care and report on how best to bring these models together into practice.

The concept has been extended in this project to a tool to improve access to lipreading classes. This does not at all imply the medicalisation of lipreading classes, quite the opposite. Instead it offers the opportunity to move away from a medical model towards a biopsychosocial one (The Health Foundation, 2014, p. 5). An effective approach to decision-making that could increase uptake of lipreading classes by adults with hearing loss has therefore been borrowed from medicine. The shared-decision process has already been applied to adult hearing rehabilitation options (Laplante-Lévesque, 2010; Laplante-Lévesque et al., 2010d). Laplante et al. (2010b, 2011) evaluated which factors are influential in decision-making about choices offered in adult hearing rehabilitation. The seven factors they identified could have either a positive or negative influence, depending on the individual. The British Society of Audiology (2012) includes making shared, informed decisions as one of its four key principles of rehabilitation for adults.

A lipreading class decision aid and a quiz were developed (see Appendices 17 and 18) through a series of stakeholder consultations (see Appendix 19) as tools for promoting shared decision-making over information provision alone about lipreading classes. They are based on suitability criteria identified in the literature synthesis (see Appendix 5) and provide the opportunity for detailed discussion and informed choice for individuals about whether or not to attend lipreading classes.

3.7 Up-to-date information on available classes

As discussed in section 3.2.1, the ease with which lipreading class members found out about their class varied. To provide information consistently across Scotland, a class database is now available on www.scotlipreading.org.uk and will be maintained by SCTTL. This was based on the 2013 SCTTL survey, ie on information provided by lipreading tutors, and will continue to depend on individual

tutors providing up-to-date information about their class(es). This database will be linked to ALISS (A Local Information System for Scotland) (www.aliss.org), NHS Inform (www.nhsinform.co.uk) and available via a link on strategy group member organisations' websites to increase the number of ways in which it can be accessed. Although ATLA has a database of lipreading classes, the list understandably includes classes run only by their members. As membership of ATLA is not mandatory, this Scottish database should be more complete in its coverage.

3.8 More consistent marketing of lipreading classes

Lipreading tutors in Scotland may be members of the Association of Teachers of Lipreading to Adults (ATLA) (www.lipreading.org.uk), have their classes listed on the ATLA database and use ATLA promotional materials. Membership however is not obligatory and some lipreading tutors in Scotland produce their own marketing materials. Third sector organisations have leaflets or booklets about lipreading and lipreading classes. Lipreading class signposters may have access to the above information or use locally developed information materials – or no materials. To enable more consistent marketing of lipreading classes in Scotland, a list of all known lipreading classes is now available, as described in section 3.7. In addition, a poster template was designed and made available to lipreading tutors. Many other marketing resources have been developed during this project (see Appendix 20) and made available to the general public and those who signpost adults with hearing loss to lipreading classes on www.scotlipreading.org.uk (FAQs tab).

That the project's resources are available only online should not exclude prospective lipreading class members' access as those without internet access and/or computer literacy can and do obtain the resources via others – audiologists, GP surgeries, family members, friends, librarians etc (see section 3.2.1 and Appendix 10). The Scottish Household Survey (The Scottish Government, 2014a) provides national data on digital participation as well as on a range of other measures. Its August 2014 report reflects results from the 2013 survey. At that time, 74% of households in Scotland overall had Broadband at home. 95% of households with home internet access had Broadband. 'There was a clear relationship between age and use of the internet, with lower proportions of older respondents using the internet. However, it should be noted that the proportion of older people using the internet has increased greatly in the decade up to 2013 (25 per cent of those aged 75 and over reported using the internet in 2013, compared with four per cent in 2003)' (p. 77). More older men than older women accessed the internet at home (57% of men, 46% of women aged 60 and over). At least 84% of adults aged from 16 to 60 years accessed the internet at home. Online availability of information about lipreading classes may act to improve access by younger people.

3.9 Recommended resource list for those unable or not wishing to attend classes

The 2013 SCTTL survey demonstrated that lipreading classes are not available to adults with hearing loss in all geographical areas of Scotland (see section 3.1.2), that they are in scarce supply in areas where classes do run and that classes do not always run, eg if funding is withdrawn. Self-help books on learning lipreading date back about a century in the UK (and earlier in USA). Stormonth (1917)

may have been the first published in the UK. Such books have continued to be published since (eg Good, 1930; Clegg, 1953; Wyatt, 1960; Action on Hearing Loss, 2012). Over the past few decades, audio-visual and computer-based materials have enhanced lipreading self-learning opportunities. Most of the latter are from USA and Australia.

The internet was searched for lipreading learning resources in order to make information about appropriate and high quality resources available to adults with hearing loss who are unable to attend lipreading classes (eg if they live in an area where there is no class, are not able to attend when the class runs, are not physically able to attend) or do not wish to attend lipreading classes). The resources found via internet search were scrutinised and trialled by the Forth Valley Lipreading Self-help Group and by some of the lipreading tutors in Scotland. Some items on the resultant list are free resources and others people would have to buy (See Appendix 21). The resources can also be used by prospective lipreading class members to help them assess how suitable lipreading learning is for them and for current lipreading class members as ways of practising lipreading between classes.

4. Summary of project outcomes and outputs

'On everybody's lips' was a 13-month project for the Scottish Lipreading Strategy Group. Its aim was to contribute to the improvement of access to lipreading classes for adults with hearing loss in Scotland. It used both quantitative and qualitative research methods and produced a range of results, knowledge outcomes and physical outputs. These are summarised below.

An exploratory scoping study illuminated a very limited research evidence-base on factors affecting access to lipreading classes. Research from related fields (especially self management of long term conditions and adult education) contributed to the synthesis of (inferred) knowledge in this area. The importance of the individual's readiness to access rehabilitation as well as service-level features were suggested as noteworthy factors.

A significant gap was identified between the current supply of and potential demand for lipreading classes for adults with hearing loss, based on a conservative guesstimate. The current number of classes (about 50) reflects about 30% of the guesstimated need, even if only 10% of people diagnosed annually with hearing loss took up lipreading classes. This gap will expand as the population of Scotland continues to age, unless the supply of lipreading tutors and classes continue to increase.

New evidence on the timing and triggers to access classes was derived from both a written, postal questionnaire and focus groups for current lipreading class members. While early intervention is often advocated, people who attend lipreading classes generally access them long after the onset of their hearing loss. They find out about them from a wide variety of sources, contrary to received wisdom that this knowledge transmission is the responsibility of GPs and audiologists. People of working age were under-represented by 2:1 compared to people of retired age among the lipreading class members who completed the questionnaire. Contrary to received wisdom, class members reported that generally they found it easy to find lipreading classes. Generally they began attending soon after finding out about the class. Hearing loss and associated communication problems were reasons given for accessing lipreading classes. For a few, other reasons such as convenience or curiosity were given.

The focus groups produced long lists of people who should know about local lipreading classes and of ways of encouraging more people to attend. Lipreading ambassadors to spread the word may be a way forward. That some people in Scotland have to pay for hearing rehabilitation was noted to be inequitable. Lipreading classes are enabling, empowering and contribute to self management support of adult hearing loss. Class members derive significant benefits from classes, especially in terms of their impact on confidence re-building and social re-inclusion.

Two online surveys of younger adults (16-25 year olds and people of working age) aimed to start the process of understanding why there is low uptake of lipreading classes by this age-group. The first produced too few responses on which to base any generalisations about young adults with hearing loss when they are in transition from school to college or employment. The second set of data was drawn from a much larger Action on Hearing Loss UK-wide survey on managing hearing loss when in work or seeking employment. The Scottish responses generally mirrored responses from across the UK. It was very clear that lipreading classes were a priority for the survey participants in what

should be included in a package of support. Those respondents who had attended rated lipreading classes fairly or very useful.

Two pathways were developed, to contribute to that strand of the See Hear Strategy, one to lipreading classes and the other through lipreading classes. A four-step model very briefly describes the ideal pathway that adults with hearing loss should have the option of working through. The basic requirements for each of the steps are defined.

A study was carried out about the feasibility of delivering lipreading classes in the remote and rural areas of Scotland, where there are currently very few or none. Two possible ways forward are described – different models of service to reflect local circumstances and, potentially, videoconferencing.

Shared decision-making tools were developed during the project and these may be effective in improving the uptake of lipreading classes. These include a decision aid and a quiz. These and other resources developed during the project are available to prospective lipreading class members at http://www.scotlipreading.org.uk (FAQs tab). A list of known lipreading classes across Scotland is also now available on that website. A list of marketing resources developed during the project is provided in Appendix 20.

Recommendations arising from the findings, project outcomes and outputs of 'On everybody's lips' are described in the next section. They include suggestions for lipreading services' development in Scotland and for further research.

5. Recommendations for improved access to lipreading services and further research

Two sets of recommendations have arisen from 'On everybody's lips'. The first is the direct actions required to enable lipreading service development in Scotland (see section 5.1) and the second is further research which will underpin this development (see section 5.2).

5.1 Lipreading service development

Increased general public awareness of lipreading classes would ensure that adults with hearing loss are aware of their existence when they decide that they want to try them.

Efforts to improve access to lipreading classes should focus on all adult age-groups but particularly on the estimated 326,000 **people of working age** with hearing loss who are currently under-represented among lipreading class members in Scotland.

Those who signpost adults with hearing loss to lipreading classes should provide information about classes and **share the decision-making process** with the prospective lipreading class member to improve uptake.

Local lipreading service pathways should be developed across Scotland, according to local circumstances, eg population size, geographical spread of prospective participants. Volunteer lipreading ambassadors should be identified, trained and supported.

Lipreading pathways should be funded and supported by statutory bodies, ie the newly integrated health and social care services, to make them sustainable in the long term, as the number of adults with hearing loss in Scotland continues to increase.

Service providers should **pilot alternative models of delivery especially in the remote and rural areas of Scotland**.

5.2 Further research

A **cost-benefit analysis** would demonstrate the cost-effectiveness of lipreading classes as part of adult hearing rehabilitation.

The **effectiveness of the lipreading class decision aid** should be evaluated.

As a fundamental aspect of the lipreading learning pathway, individual variation in the **optimal frequency of classes and length of attendance at lipreading classes** should be determined.

Investigation of whether **early attendance at lipreading classes** reduces the need for hearing aids and/or increases motivation to use hearing aids effectively.

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Appendix 1 What are lipreading classes about?

Appendix 2 Historical time-line (incomplete) - development of lipreading classes in Scotland

The broader term 'speechreading' has replaced 'lipreading' in some countries; however lipreading remains the label of choice in the UK.

17th century	Probably when lipreading was first written about – 'a man born deaf and dumb, may be taught to hear the words with his eye' [modern spelling] from *Philocophus* by John Bulwer, England. http://www.acsu.buffalo.edu/~duchan/new_history/early_modern/bulwer.html; http://mambo.ucsc.edu/psl/bulwer.html (accessed 17.7.14) 'In 1648 John Bulwer published a book entitled 'The deaf and dumb man's friend' .. 'exhibiting the philosophical verity of that subtile art, which may enable one born deaf and dumb, with an observant eye, to hear what any man speaks by the moving of his lips…' (Ewing, 1941, p. 6). 'He [Bulwer] regarded speechreading as a way of learning to speak rather than understanding the speech of others.' He 'advocated use of a combination of sign language, speech, and 'lip grammar' (speechreading)' (Kaplan et al., 1999, p. ix).
18th century	In Edinburgh '…the improvement of Mr. Braidwood's pupils is wonderful. They not only speak, write, and understand what is written, but if he that speaks looks towards them, and modifies his organs by distinct and full utterance, they know so well what is spoken, that it is an expression scarcely figurative to say, they hear with the eye' (from Johnson's 1775 book *A Journey to the Western Isles of Scotland*, quoted in Woodhouse et al., 2009).
Late 19th century	Lipreading started to be taught to deaf children. It was originally used as a 'method of improving speech production' (Kaplan et al., 1999, p. xiii). Alexander Graham Bell advocated an oral approach to teaching deaf children, so lipreading was part of the curriculum on his course to train teachers of the deaf, which started in 1872 (Kaplan et al., 1999, p. xi).
Early 20th century	The Post Office Edinburgh and Leith Directory 1900-1901 includes a listing for Harry Cottam, teacher of lip-reading, at 54 Henderson Row - the address at the time of the Edinburgh Institution for the Education of the Deaf and Dumb (Watson, 1949). Analytic and synthetic approaches to lipreading teaching were developed at this time (Kaplan et al., 1999). Lipreading started to be taught to adults with hearing loss (Ewing, 1941; Kaplan et al., 1999).
1913	Lipreading classes for adults with hearing loss were being run in Dundee, Edinburgh and Govan (The National Bureau for Promoting the General Welfare of the Deaf, 1913).

	They were established in Edinburgh in 1912 under the Edinburgh School Board in connection with their Continuation Classes, in the charge of Mr Illingworth, Headmaster at the Edinburgh Royal Institution for the Education of Deaf and Dumb Children. In 1916, they were running twice a week on Tuesday nights and Saturday afternoons, with each class lasting two hours.
c. 1918	'The earliest step in dealing with the deaf [servicemen] was taken privately in Edinburgh, where the Edinburgh Lip-Reading Association established a class on May 1st, 1917, under the tuition of Miss M. E. B. Stormonth, of the Edinburgh School Board. A small number of men were with some difficulty collected from all parts of the United Kingdom, and were lodged or billeted through the generosity of the association. The teaching was excellent and the results most satisfactory, but, of course, the scope of the voluntary association's activity was necessarily a limited one, and, as Miss Stormonth said, State recognition was indispensable' (Inter-Allied Conference on the After-Care of Disabled Men, 2018, p. 312). Mary Stormonth offered lipreading classes at 11 Upper Gilmore Place, Edinburgh (Post Office Edinburgh and Leith Directory, 1918-1919). (By 1919 the entry is for Lipreading (Edinburgh) Association at 10 Upper Gilmore Place with Miss Mary Stormonth as Organiser and Miss E. Morgan, 26 Hartington Place as Treasurer.) Mary Stormonth authored the *Manual of Lipreading* in 1917, which was 'specially prepared for the instruction of deafened sailors and soldiers'. She was a teacher of the deaf who had previously worked at the Edinburgh Royal Institution for the Education of Deaf and Dumb Children before taking up a position with the Edinburgh School Board. 'Meanwhile, every effort has been made by means of advertisements, circulars, letters and personal visits to bring before the sufferers the benefits of lip-reading, and to organise courses of instruction conducted by highly qualified teachers' (Inter-Allied Conference on the After-Care of Disabled Men, 2018, p. 313). 'Again, before a man is started on a course of instruction in lip-reading it is considered necessary for him to be examined by experts with regard to his suitability for such instruction, or else for medical treatment, or, it may be, for both. Aural surgeons are properly associated with an expert in lip-reading instruction for the purposes of such an examination' (Inter-Allied Conference on the After-Care of Disabled Men, 2018, p. 314). 'The Special Aural Board under the Ministry of Pensions. …, the Minister of Pensions was pleased to appoint a Board consisting primarily of four aural surgeons (Arthur Cheatle, F.E.C.S.; Hunter Tod, F.E.C.S.; Sydney Scott, F.E.C.S., and George Cathcart, M.D.), and a specialist in instruction in lip-reading (Mr. Sibley Haycock), with the writer as President. Their activities were in the first instance confined to London, but subsequently they were extended to the various areas into which the United Kingdom is divided for the purposes of pension distribution. These areas are each under a representative of the Ministry, and in each there have been appointed aurists and lip-reading specialists who are members of the Aural

	Board, but acting only in their own areas. The following is a list of these aural surgeons, with the lip-reading specialists, appointed to the different "areas": … Scotland : — S.E. Scotland, A. Logan Turner, M.D., with Mr. J. S. Barker and Miss M. E. B. Stormonth; S.W. Scotland, Albert Gray, M.D., with Mr. W. H. Addison' (Inter-Allied Conference on the After-Care of Disabled Men, 2018, p. 314). 'The actual instruction is carried on in the class-rooms at the headquarters, and classes are held there morning and afternoon for those who are prepared to have whole-time training, and in the evening for those who wish to follow their occupations during the day. This has been recognised as a branch of national education, and the Board of Education has generously co-operated with the Ministry of Pensions by providing the teaching staff under the guidance of one of its medical officers, Dr. Alfred Eichholz. The organisation and technical direction of this work has been entrusted to Mr. Sibley Haycock, Principal of the National Association for the Oral Teaching of the Deaf, Fitzroy Square, from the teaching staff of which institution the actual teachers have been supplied. As regards the duration of the course, opinions differ, and on the whole our French colleagues consider less time necessary than we do. The Germans, on the other hand, ask for at least five or six months. We look upon three months as being an ordinary full course, but in a good many cases a second course is necessary, especially for those who have been deafened through epidemic cerebro-spinal meningitis. The probability is that the nature of the language and pronunciation of the different nationalities are answerable for these differences. In the pronunciation of French the lips and face come very much into play, whereas-in German there is a very extensive guttural element. There is no fault to find with the English language, but the reproach of our French friends that we "swallow our words" is not without foundation, and our habitual mumbling makes us difficult to understand by lip-reading.' (Inter-Allied Conference on the After-Care of Disabled Men, 2018, p. 315).
1920s on	Self-help books on learning lipreading date back at least to the 1920s and 1930s and have continued to be published (see section 3.9).
1939	Lipreading classes for adults with hearing loss were being run in Dunfermline, Edinburgh, Glasgow and Kirkcaldy (The National Institute for the Deaf, 1939).
1940s on	Aural rehabilitation started during and continued after the second world war (in USA) for deafened servicemen – originally consisting of lipreading and auditory training and later including hearing aids (Ross, 2007). 'The earliest known lipreading teachers' training course in the United Kingdom was set up by the Royal National Institute for the Deaf after the Second World War to meet the needs of war-deafened ex-service men and women who needed lipreading tuition.' (ATLA information leaflet: http://www.lipreading.org.uk/resourcelist.php accessed 20.10.14)

1948-1952	Some of the candidates for the 'N.I.D. [The National Institute for the Deaf] Training Scheme for Teachers of Lip-reading to the Adult Deafened' were from Scotland (The National Institute for the Deaf, 1950). This course is mentioned in several issues of the NID's magazine '*The Silent World'* (July 1949, April 1950, July 1950, March 1952, April 1952, June 1952). The diploma course was launched in February 1948 in consultation with the National College of Teachers of the Deaf 'to help the grave shortage of teachers of lip-reading' (July 1949), ran three times and ended 'since the need now seems to have been very largely met' (June 1952). By 1952, 57 lipreading teachers had qualified, including two from Scotland (Miss MBB McKenzie from Falkirk and Miss CAM Sym from Edinburgh). A conference was held on January 16 1952 of NID qualified lip reading instructors (reported in the March 1952 of *Silent World*). Some of the questions discussed resonate in 2015: 'Should the teaching of lip-reading be a hospital service under the Ministry of Health or an educational service under the Ministry of Education? Should tuition, in either case, be free?' 'Should lip-reading instruction be part of Club activities or separate? Should hearing friends and relations be allowed to attend class as watchers in order to get a better understanding of the needs of a deaf person?' 'Remuneration formed a separate subject and surprising variations were quoted in fees paid by different Authorities.'
1977	Association of Teachers of Lipreading to Adults set up with the belief that 'lipreading belonged within education'. (ATLA information leaflet: http://www.lipreading.org.uk/resourcelist.php) (accessed 20.10.14)
1979, 1981	The BBC ran two series of 'The skill of lipreading', presented by Christine Martin.
1970s and 1980s	An evening lipreading class was started in Alloa by Mrs Law (Head Teacher/Teacher of the Deaf in a unit for partially hearing children), funded by the local authority. She was joined at her request by Kathleen Orr (teacher of the deaf) and they ran the class together until 1982 when Mrs Law died. Kathleen Orr continued the class until the late 1990s (information from Kathleen Orr.) Other classes were also being provided at that time by unqualified tutors in other areas of Scotland, eg Edinburgh, Perth and Gourock (information from Sarah Kilbey). Sherry Rennie (Chief Audiologist in Inverness) was the first qualified lipreading teacher in Scotland – she attended the Manchester Polytechnic course in 1980. Mrs Rennie arranged with Anita Clokie of the Manchester course to bring it to Inverness in 1983 (information from Eleanor Arnold and Anita Clokie). There were 12 course participants from all over Scotland – four of whom were deafened adults. The course involved one week and three taught weekends, 40 hours of lipreading class observation and written assessments. This resulted in qualified lipreading teachers working in Edinburgh and Inverness. 'Gradually, a few others came forward to train [in Manchester] – Judith [Christie], who went on to be Scotland's first Hearing Therapist; Lana from the Borders; Joe from Glasgow,

	Joan, Eleanor and Mary from Lothian.' (Sarah Kilbey, presentation at Scottish Council on Deafness Forum, 27 February 2002).
1990s	'We built up to 15 classes in Lothian and we were teaching about 260 adults a week, and always had a waiting list by the time I resigned three years ago. But the situation in the rest of Scotland was dire. I was getting requests for help – for talks – from all over, but there were only ten qualified and working teachers altogether and five of them were in my team.' … 'Gradually, I came to see things would never get any better until we got a Scottish course to train more teachers – one that addressed our own needs. I got together with Judith. We met up with Ruth McAree, from Moray House, and Margaret Moodie [Scottish Deaf Children's Society] and, together, we wrote a course of training which was accepted by our professional association, ATLA, in London, and by Moray House.' … 'there's still so much to do, in getting secure long term funding, not just for the Course itself but also for the whole principle of lipreading groups as being a necessary part of rehabilitation' (Sarah Kilbey, presentation at Scottish Council on Deafness Forum, 27 February 2002). The Scottish Association for the Deaf (now Scottish Council on Deafness) lobbied and campaigned for funding and recognition of the Scottish course to train tutors of lipreading (Scottish Council on Deafness, 2013). The Scottish Course to Train Tutors of Lipreading's (SCTTL) pilot course was run in 1994/5 under the auspices of the Scottish Sensory Centre, Moray House Institute of Education, Edinburgh (Kilbey, 1995) with 13 students, to the same teaching pattern as the Manchester course in Inverness. The course also ran there in 1997/8, before moving to Donaldson's School in Edinburgh (and more recently in Linlithgow). Lipreading classes for adults sat with education, so were mainly provided by local Council authorities.
2007	Results of 2006 SCTTL survey: 34 lipreading tutors, 63 lipreading classes in Scotland (Scottish Course to Train Tutors of Lipreading, 2007).
2012	The Scottish Lipreading Strategy Group was established (2012-2015). It received £200,000 from the Scottish Government to improve access to lipreading classes for adults with hearing loss in Scotland. Acknowledgement by Michael Matheson, Minister for Public Health, that lipreading classes are one aspect of adult hearing rehabilitation.
2014	Results of 2013 SCTTL survey: 26 lipreading tutors, 46 lipreading classes in Scotland.

Appendix 3 Self Management Strategy and lipreading classes

[page numbers are from 'Gaun Yersel!']

Definition of self management

'Self management is the successful outcome of the person and all appropriate individuals and services working together to support him or her to deal with the very real implications of living the rest of their life with one or more long term conditions' (p. 5)

Aim of the self management strategy

'Living with a condition for which there is no cure can have a devastating effect on a person. The impact can extend to social, economic, psychological, cognitive and cultural aspects of a person's life. People cope as well as they can with the support they have but frequently do not have the information or skills to develop healthy responses to their condition, or make well informed decisions about their life. This strategy aims to work towards a situation in which people living with long term conditions have access to the support they need to successfully manage their condition. This could include: information leaflets; courses run by others with similar conditions; one to one support; structured education; and self management courses. All of these will empower people to learn about their condition, acknowledge the impact on their life, make changes and identify areas where they need support.' (p. 5)

Lipreading classes provide skills development, information, advice and peer support for adults with hearing loss to successfully self manage the implications of their hearing loss.

Key stages when people need support (p. 6)

Diagnosis <u>Living for today</u> <u>Progression</u> <u>Transitions</u> End of life

Lipreading classes provide support at the three stages underlined above.

Making it happen (p. 8)

'Self management is the responsibility of individuals. However, this does not mean people doing it alone. Successful self management relies on people having access to the right information, education, support and services. It also depends on professionals understanding and embracing a person-centred, empowering approach in which the individual is the leading partner in managing their own life and condition(s).'

‘Most importantly we believe self management as a term is dynamic, not passive, and reflects an ethos of empowerment.’ (p. 10)

‘It is critical that the self management agenda takes account of the structural issues which serve to exclude people and the support needed to overcome these.’ (p. 13)

‘People need the right information and skills to develop healthy responses to their conditions.’ (p. 17)

‘Some interventions will be very specific due to the complexity of the issue.’ (p. 20)

‘We need to grasp the social justice aspect of long term conditions. Too many people in Scotland are excluded at many levels because of their conditions and this is unfair and unjust. Self management offers the opportunity to build bridges back into society and social roles’. (p. 33)

‘For progressive conditions, early intervention with the right information, support and help which can adjust to changing needs, can help avoid difficulties and crises.’ (p. 37) (not all adult hearing loss is progressive and many people cannot access early intervention because of their delay in seeking diagnosis.)

‘Additional support is essential during those key life stages when people have to move between services.’ (p. 40) [eg post-school transition]

‘Recovery needs to be adopted as a concept relating to self respect, spirit, self esteem and sense of self.’ (p. 50)

‘[People] also need to be aware of the positive steps they can take to manage their condition and expand their life choices.’ (p. 50)

But …‘There is no one-size-fits-all model of self management. It is not an individual action, specific treatment or service. It has to be tailored to each person’s needs, circumstances and wishes.’ ‘For everyone, it means using information, tools, techniques and practical support from other people to get on with your life.’ (from Alliance leaflet ‘*My condition, My Terms, My Life’*)

The ethos of lipreading tutors and lipreading classes marries very well with the above statements and goals, cf aims of the lipreading class: empowerment; support and encouragement; inclusion; confidence building; social interaction; isolation reduction; independence and confidence rebuilding; development/maintenance of conversation skills; development/maintenance of lipreading skills; safe environment for learners to practise lipreading skills; development/maintenance of effective conversational tactics; interesting and enjoyable learning; information provision; deaf awareness.

Appendix 4 See Hear Strategy and lipreading classes

See Hear section extract	Link to lipreading classes/actions required
1.2. Children and adults with a sensory impairment should expect the same access to education, employment, healthcare, social care and leisure as everyone else.	Lipreading classes support adults with hearing loss to improve their communication skills so that they can engage fully in these aspects of their life.
3.9. Hidden and/or untreated sensory loss leads to a withdrawal from social interaction.	Hearing aid(s) are often not the (whole) answer for adults with hearing loss. Lipreading classes help to prevent withdrawal from social interaction by giving people back their self-confidence and facilitating re-integration into social interaction situations.
5.2. It [the strategy] should be a lever for change, promoting the seamless provision of assessment, care and support to people with a sensory impairment. In so doing it: • recognises that different types of sensory impairment will require different responses; • recognises that the responsibility for systems of care lies with the statutory agencies, but can be delivered across a wide range of agencies and settings. It therefore requires a partnership approach and the active engagement of a wide range of	Agencies to include providers of lipreading classes as one of the needs of adults with hearing loss.

statutory and third sector agencies in the health, education and social care sectors. It also includes the wider range of public service provision, people with a sensory impairment themselves and parents/carers and young carers where applicable; • identifies practical steps that can be taken to address the above points across all types of sensory impairment to ensure that needs are recognised and responded to in an outcomes focussed way.	Supports lipreading services being hosted within statutory provision to ensure equity for people across Scotland over the current postcode lottery situation.
6.3. • Early diagnosis and intervention (assisted by screening programmes) and the provision of information, emotional support and signposting to people and their parents/carers around the time of diagnosis; • The need to facilitate greater flexibility in the support provided to people. This should be underpinned by greater choice and control for individuals, coupled with an emphasis on facilitating informed choice through good quality information and advice; • The promotion of greater support to	Information about local lipreading class provided at this time. More lipreading classes available across Scotland. Use of lipreading class decision aids.

people to assist them to manage their own lives, particularly with regard to long term conditions. This should be done in a way that maximises independence and self-care, with appropriate support and guidance as required, and promotes the development of community capacity to support local responses to identified needs;	Lipreading classes provide a relatively cheap and effective intervention for adults with hearing loss to develop the abilities, skills and attitudes for long-term management of their hearing loss.
• Clear care pathways across a range of conditions that encourage and guide the individual through their engagement with assessment processes and service provision, and support them in managing their own conditions;	Pathways to and through lipreading classes have been developed by the Lipreading Strategy Group.
• Targeted support to people at time of transitions;	Lipreading classes provide one type of 'targeted support' re: improvement of communication skills, which are very important at all times, but especially at life transitions.
• A skilled, sustainable and well-trained and supported workforce across all levels and agencies;	Lipreading tutors are in extremely short supply in Scotland. Sustainable funding for the Scottish Course to Train Tutors of Lipreading needs to be found.
6.6. Linked to these policies and expectations is the recognition that there is a hierarchy of need that requires a different type of response depending on the level of	Lipreading classes for adults with hearing loss sit within the 'self management' and 'integrated rehabilitation' sections of the diagram.

need.	
7.5. Parents, carers and other family members can often be the first to recognise a sensory loss in a family member. As such they are a valuable source of knowledge and expertise. Recognising the challenges of sensory loss, parents/carers can also be assisted to support people with a sensory loss if they are aware of the implications of that loss and, where appropriate, are provided with information that can assist them in their role. In many instances the person themselves will be able to relay this information, but in other instances it would be helpful if this could be done either directly with the parent/carer, or with both the person themselves and their parent/carer.	Lipreading class members have identified the need for advice, training and support for their families and friends so that they are aware of and using effective strategies to maximise conversational effectiveness in everyday life.
7.6. Meeting the communication needs of people with a sensory impairment is fundamental to ensuring that they can engage with the care pathway, and is an essential element in their everyday lives.	Lipreading classes are core to this aspiration for adults with hearing loss.
p. 17 pathway	Adults with hearing loss should be referred to lipreading classes following a process of shared decision-making, if appropriate for them.

	Lipreading classes provide the type of service described in the 'support, service, treatment' section of this pathway via the proposed single point of access (which should be aware of local lipreading class provision).
7.7. To ensure that pathways work as effectively as possible for people with a sensory impairment, they must be confirmed at a local level to take account of local circumstances, demographic and ethnic profiles and a number of key factors must be considered:	There are currently no lipreading classes in the remote and rural areas of Scotland. New models of class delivery need to be developed that take account of local needs and circumstances, using technological responses where appropriate and possible, eg videoconferencing.
• For the majority of people, the point of diagnosis will be undertaken primarily through NHS audiologists, ophthalmologists, optometrists or optometry practitioners. Others will first become engaged through their paediatric services or GP. It is important that referral routes into support services are clear to those undertaking diagnoses, and that information is available in appropriate formats to the individuals themselves and their parents/carers;	Those involved in the diagnostic service should be aware of and inform adults with hearing loss re: lipreading classes in their area.
• Agencies and disciplines should have robust, coordinated arrangements for information sharing and a commitment to local care pathways to best meet the needs	Agencies and disciplines should signpost adults with hearing loss to lipreading classes as part of the adult hearing rehabilitation pathway and should be aware of how to support people with decision-making tools to decide whether lipreading classes are for them.

of local service users;	
• A clearly developed set of local sensory impairment care pathways that are agreed by key stakeholders and understood by all clinicians, assessors, service providers and, most importantly, the person themselves. This should address the needs of people with an identified sensory impairment, people at risk of sensory loss, and people who may be living with a hidden sensory loss, and should reflect the importance of prompting the outcomes based approach outlined earlier;	Model pathways to and through lipreading classes have already been developed and should be integrated into local care pathways for adults with hearing loss.
• A commitment from statutory agencies to seek to agree the maximum possible consistency of approach across Scotland, and ensure similar access to services across Scotland;	Currently lipreading class provision is patchy across Scotland, insufficient in all areas and absent in remote areas and so is very inequitable.
• A commitment to awareness raising training for front line staff who may have to deal with people with sensory impairments;	Lipreading tutors have the knowledge, expertise and experience to deliver this training.
8.1. As outlined earlier, it is intended that this strategic framework should be a lever for change, and should facilitate that change across agencies and services.	This strategy should enable lipreading classes to be delivered across Scotland as a core element in adult hearing rehabilitation in a sustainable way.

8.5. Sensory loss, however, can often have a slow onset and individuals may not be aware that their loss is increasing, or may feel reluctant to ask for assistance. As outlined earlier there is also the important group of people who have, or may have, 'hidden' sensory loss. In addition to specific assessment for sensory loss, as outlined in the Care Pathway diagram earlier, there is also the need to take full account of potential sensory impairment issues in mainstream assessments, including community care assessments.	It is therefore important that people with adult-onset hearing loss are signposted to lipreading classes as soon as possible and at every opportunity so that those people can benefit from lipreading classes, once they are ready to do so.
8.12. As highlighted in the section on the development of care pathways, reliable information is basic to understanding the prevalence of sensory impairment and then being able to monitor the reach of services, engage with service users and carers, identify and learn from best practice, and identify gaps and opportunities for service improvement. Currently there are no standard expectations in this regard.	This lack of reliable information has hindered an estimate of how many lipreading classes need to be provided across Scotland. A conservative guesstimate suggests that currently only about 10% of the total number needed are being delivered.

Appendix 5 Existing evidence re: access to lipreading classes

Challenges re: accessing lipreading classes

- **Personal factors**

Hearing loss and acceptance	Reluctance to admit to having a hearing loss (Redmond, 2011b)
	'..age-related hearing impairment is not a life-threatening condition and [..] relative readiness for rehabilitation must be taken into consideration' (Laplante-Lévesque et al., 2010a)
	Person feels that they are not deaf enough (Levene and Tait, 2005) but would attend if their hearing deteriorated further (Matthews, 2011)
	Poor hearing (Redmond, 2011b)
	Stigma felt re: hearing loss – negatively affects seeking help for hearing loss, more especially for younger people with hearing loss (Sfakianos, 2014)
Past experience	Having coped so far without these classes (Redmond, 2011b)
	Negative previous experience of education (Redmond, 2011b)
Personal characteristics	Fear of not being able to concentrate or cope in the class (Redmond, 2011b), feeling too old to learn (Redmond, 2011b)
	Lack of confidence, shyness and/or self-consciousness (Redmond, 2011b)
	Potential age-related barriers (Mustapha, 2010), eg vision, memory
	Personal and professional commitments (Redmond, 2011b), life's 'busyness' (Allen, 2003)
	Ill health (Redmond, 2011b)
	Difficulty travelling (Redmond, 2011b), distance to the nearest class (68 miles for one participant) (Redmond, 2011b)

- **Service provision factors**

Availability	Lack of availability (Mustapha, 2010; Ringham, 2013)
Knowledge/information	Lack of information/awareness about them (Action on Hearing Loss, 2010; Echalier 2009; Mustapha, 2010) (may be perceived rather than real – information overload)
	People don't know the benefits (Action on Heating Loss, 2010)/don't believe that they would benefit from the class (Mustapha, 2010)
	'More should be done by local authorities and learning providers to ensure that lipreading classes, and the benefits of learning to lipread, are properly advertised in the community.' (Action on Hearing Loss, 2010)
Shared decision-making/decision aids	Improve client knowledge of intervention options, facilitate decisions and increase client participation in decision making (Laplante-Lévesque et al., 2010c). 'Shared decision making respects patient autonomy and promotes patient engagement' (Elwyn et al., 2010). One of the key principles for rehabilitation for adults with hearing problems (British Society of Audiology, 2012)
Cost	(Increased) fees (Action on Hearing Loss, 2010; Ringham, 2013)

The best time to access lipreading classes

For some people, the best time to access lipreading classes is not at the time of diagnosis as they are in shock (Redmond, 2011a), which is not the optimal time for new learning. However early access to lipreading classes post-hearing loss diagnosis may be most effective - participants who had experienced hearing loss most recently reported the greatest benefit in a study looking at the effectiveness of lipreading learning (Ringham, 2013). The next main opportunity for people to access lipreading classes is via hearing aid assessment and fitting by audiological services. 'Focus group participants told us that it was a lot of information to take in at one sitting [initial hearing aid appointment] and that they had forgotten a lot of it when they got back home' (Redmond 2011a, p. 6). On the other hand, some may find this the correct time for them: 'I went straight to a class from the hearing aid centre' (Action on Hearing Loss 2012, p. 12). Finally, many people may not access lipreading classes until some years after developing hearing loss (Action on Hearing Loss, 2014).

In summary, this evidence indicates that the best time potentially depends on the individual person's readiness, ie their stage of change in relation to their hearing loss diagnosis. The stages

below define the change curve related to service development by allied health professionals (NHS Education for Scotland, 2010). However they also capture the stages people with acquired hearing loss may move through before being ready at the end of this process to access lipreading classes:

Shock → Retreat → Self doubt → Apathy → Resolve → Taking stock → New goals

Assessment of the best time for an individual to access lipreading classes can also be made by referring to a 'patient journey' template (eg Manchaiah et al., 2011). Their template was developed from the patients' perspective, rather than from the professionals' and identifies seven phases:

Pre-awareness-Awareness-Movement-Diagnostics-Rehabilitation-Self-evaluation-Resolution

In addition to individual variation in readiness, there are some service provision challenges to access to lipreading classes immediately after signposting, eg classes running to school or college terms. Classes may run during the day, which makes access difficult for those at work (Echalier, 2009; Mustapha, 2010) or in the evening, which affects access for some (older) people. There may be difficulties with classes which have a range of both new and experienced lipreading learners (Scottish Course to Train Tutors of Lipreading, 2007).

Suitability for lipreading classes

Several 'optimal candidacy criteria' (Laplante-Lévesque et al., 2010d) for attending lipreading classes are listed below:

- English speaker, good knowledge of it (Kaplan et al., 1999) (or good knowledge of whatever is the language of the lipreading class delivery), post-lingual hearing loss (Allen, 2003)
- Motivated and ready (re: change curve – see above) (Laplante-Lévesque et al., 2010d), self-confident (Kaplan et al., 1999)
- Self-reported hearing disability (Knudsen et al., 2010) – 'self-perceived activity limitation (and participation restriction) may be regarded as a very important determinant in aural rehabilitation' (p. 141) and self-efficacy - 'Self-efficacy reflects the idea that what people think, feel, and believe they are capable of affects what they are actually capable of' (p. 143)
- Good vision, able to repeat some of the stimuli of the 'Easy lipreading screening test' (Erber, 2002)
- Able to be 'visually alert and visually attentive to the speaker's face for long periods of time' (Kaplan et al., 1999, p. 6)
- Able to remember and learn, good short-term memory (Campbell & Mohammed, 2010)
- Risk-taker – willing to guess (Campbell & Mohammed, 2010)
- Synthetic ability as well as analytic ability (Kaplan et al., 1999)
- Adherence, ie 'sticks the course' (Laplante-Lévesque et al., 2010d; Sweetow & Henderson Sabes, 2010)

- Not degree or duration of hearing loss, intelligence or educational level (Allen, 2003; Kaplan et al., 1999), nor gender (Allen, 2003; Knudsen et al., 2010) but maybe age (Allen, 2003; Feld & Sommers, 2009; Knudsen et al., 2010)
- Able to learn alongside other people (personal observation)
- Adequate literacy ability to be able to read publicity materials, enroll and engage with written class materials (personal communication, Liz Hurst, 2014).

Triggers to attend

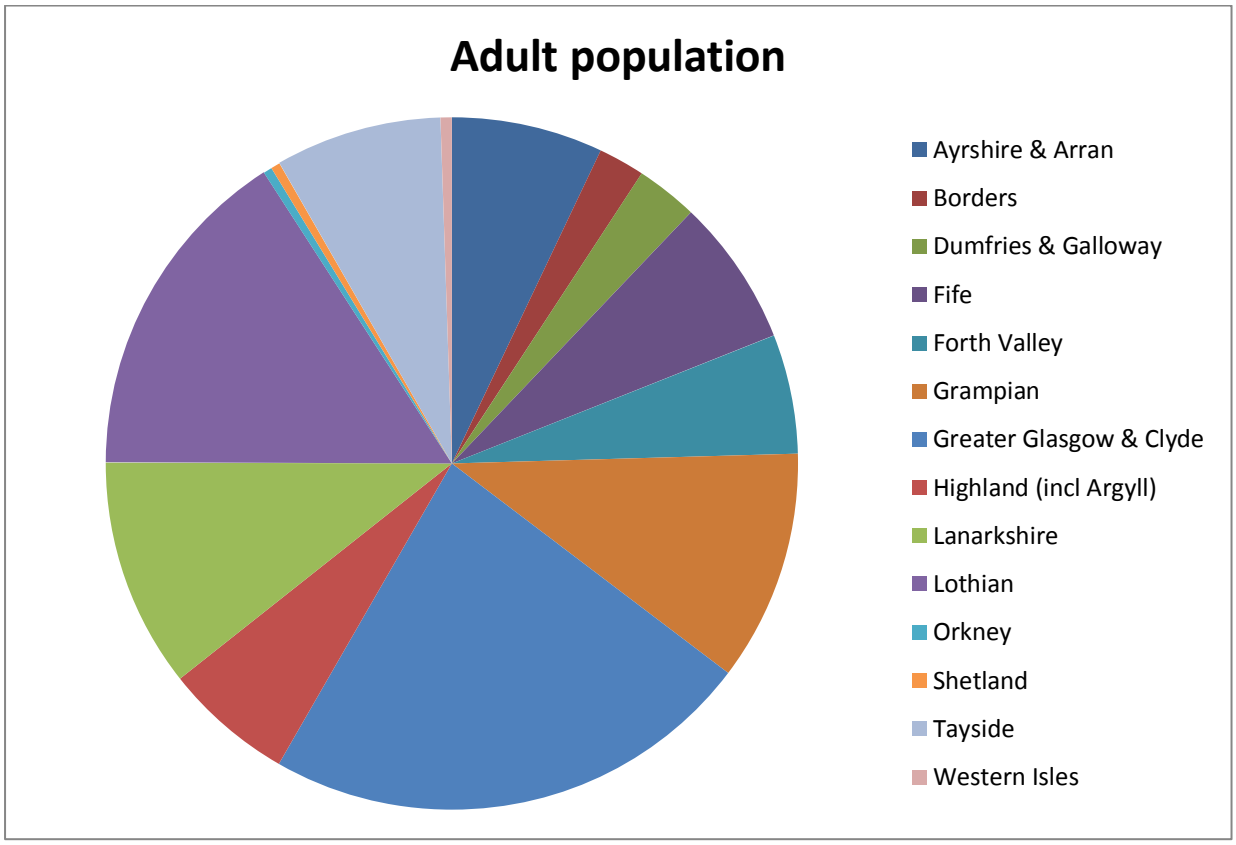
Known reasons for joining a lipreading class include because participants 'thought that learning to lipread would help them communicate better with others. … Some were concerned that their hearing would get worse, and thought that being able to lipread would benefit them if this happened. Getting information about how best to cope with hearing loss and being able to share their own experiences with others who understood were also stated as reasons for joining classes' (Redmond, 2011b, p. 11) (based on interviews with 14 current lipreading class members).

Forthcoming systematic reviews

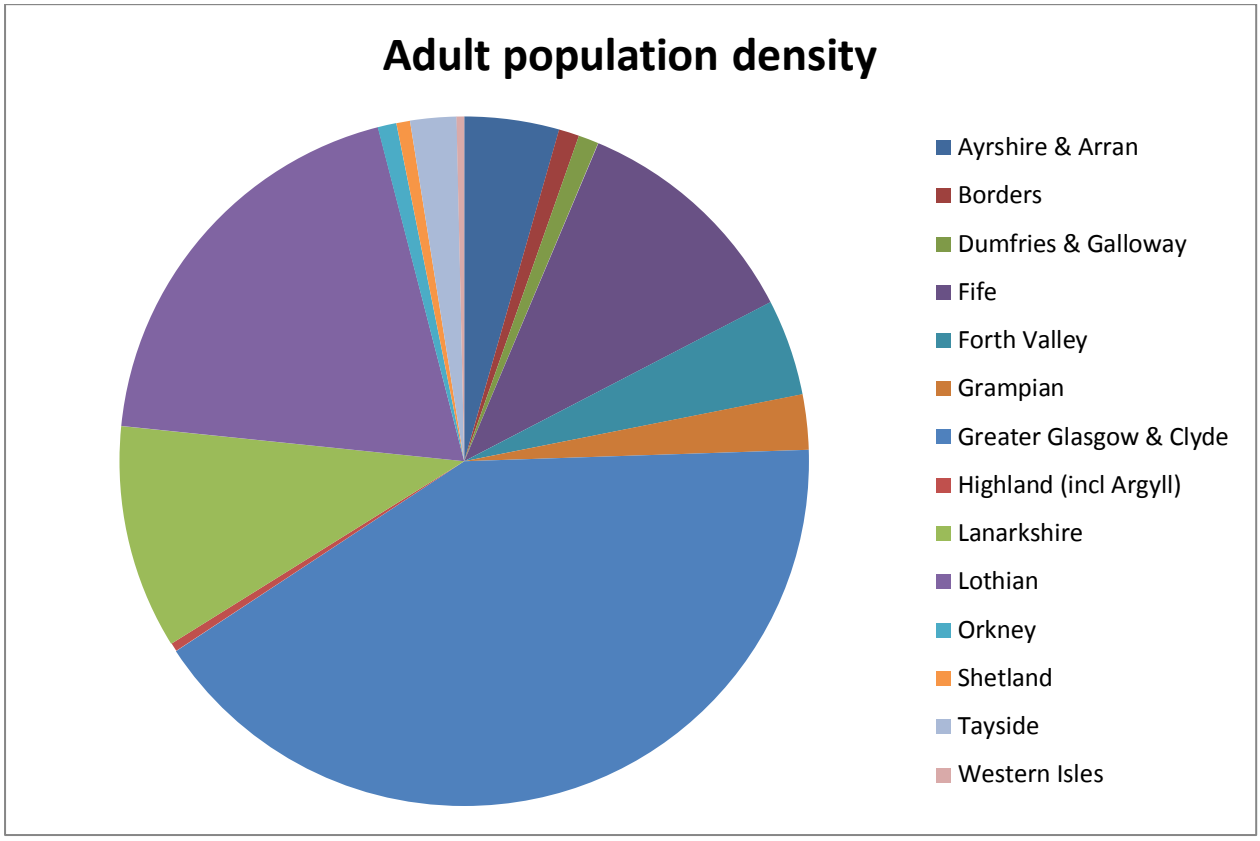
At the time of completion of this project, there were two systematic reviews in preparation that would potentially have been relevant for this literature synthesis:

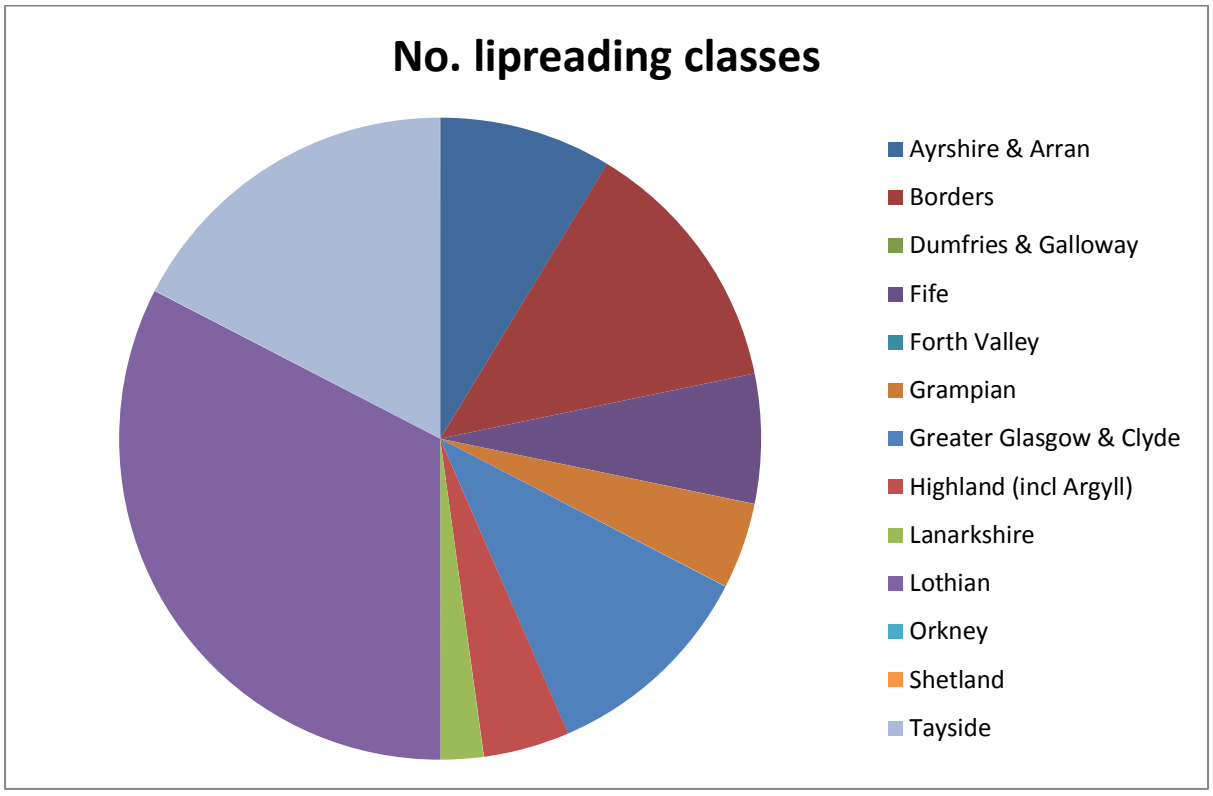
- Cochrane review on community-based self-management programs for improving participation in life activities in older adults with chronic conditions: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010097/full (accessed 29.12.14)
- Campbell Collaboration review on communication enhancement for older adults with hearing impairment: http://www.campbellcollaboration.org/lib/project/165/ (accessed 29.12.14)

Appendix 6 Scottish adult population and density (2011 census) and lipreading classes by health board area



NB The coloured sections of the chart should be read alphabetically from 12 o'clock.


Adult population density
Ayrshire & Arran
Borders
Dumfries & Galloway
Fife
Forth Valley
Grampian
Greater Glasgow & Clyde
Highland (incl Argyll)
Lanarkshire
Lothian
Orkney
Shetland
Tayside
Western Isles


No. lipreading classes
Ayrshire & Arran
Borders
Dumfries & Galloway
Fife
Forth Valley
Grampian
Greater Glasgow & Clyde
Highland (incl Argyll)
Lanarkshire
Lothian
Orkney
Shetland
Tayside

	All people	Males	Females	Area (hectares)	Density (no. persons per hectare)
Scotland	5,295,403	2,567,444	2,727,959	7,793,711	0.68
Ayrshire & Arran	373,712	178,925	194,787	336,944	1.11
Borders	113,870	55,160	58,710	473,174	0.24
Dumfries & Galloway	151,324	73,405	77,919	642,620	0.24
Fife	365,198	176,943	188,255	132,486	2.76
Forth Valley	297,636	144,475	153,161	263,464	1.13
Grampian	569,061	281,332	287,729	873,588	0.65
Greater Glasgow & Clyde	1,213,408	583,126	630,282	117,477	10.33
Highland	320,298	156,611	163,687	3,259,335	0.1
Lanarkshire	574,637	277,505	297,132	218,111	2.63
Lothian	834,350	405,702	428,648	172,423	4.84
Orkney	21,349	10,566	10,783	98,980	0.22
Shetland	23,167	11,761	11,406	146,665	0.16
Tayside	409,709	198,265	211,444	752,493	0.54
Western Isles	27,684	13,668	14,016	305,950	0.09

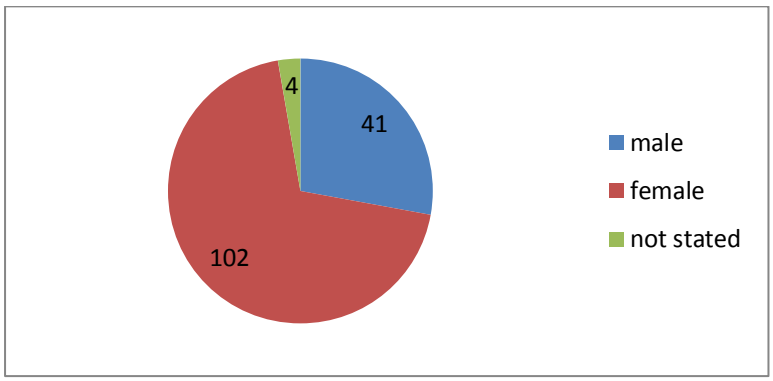
Lipreading class venues (February 2014)

Type of premises	No classes
community centre	10
church hall	8
deaf voluntary organisation	5
high school	5
sensory centre	3
community hospital	3
resource centre	2
blind voluntary organisation	2
general hospital	2
library	2
health centre	2
miners' club	1
partnership centre	1
school for the deaf	1
adult learning centre	1
advice centre	1
FE college	1
Not known (Keith)	1
Total	51*

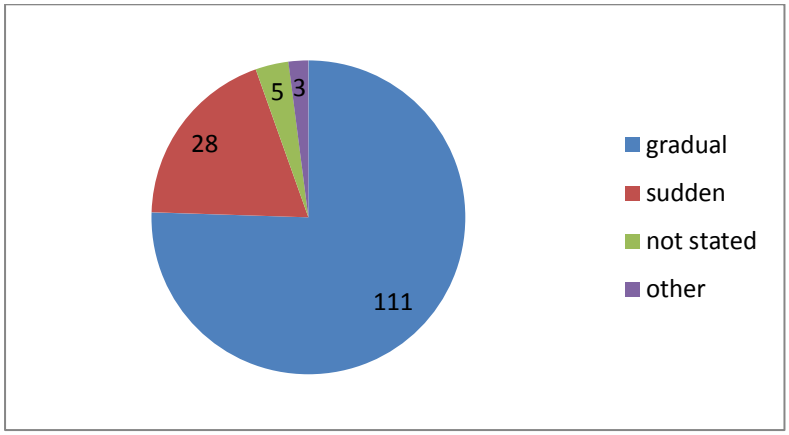
*51 classes were reported in the 2013 SCTTL survey, but five were not running at the time of the survey.

Appendix 7 Questionnaire respondent demographics

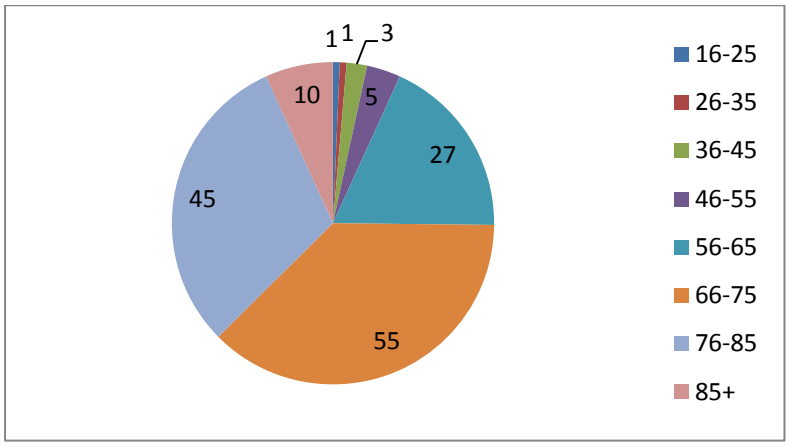
Gender



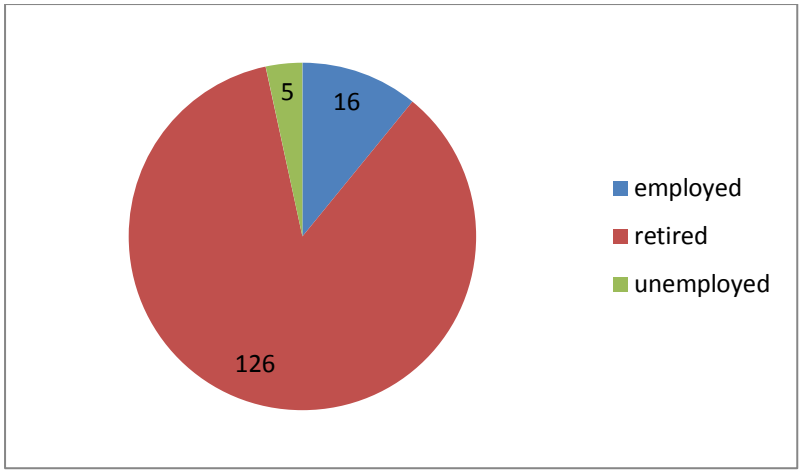
Onset of hearing loss



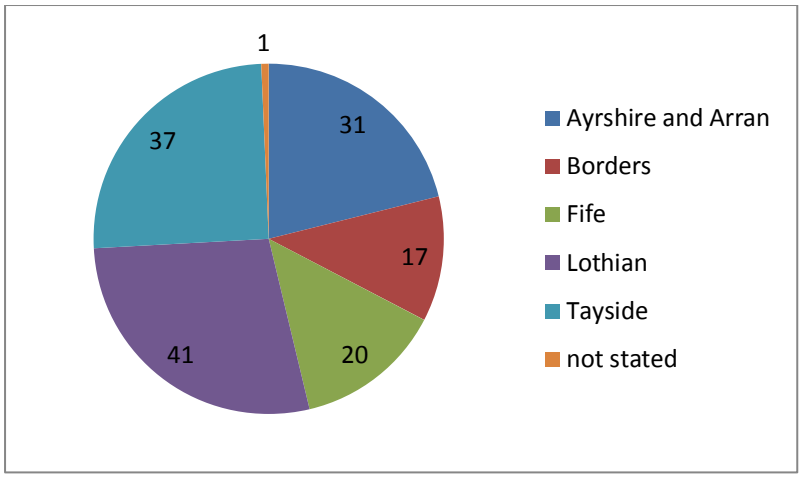
Age



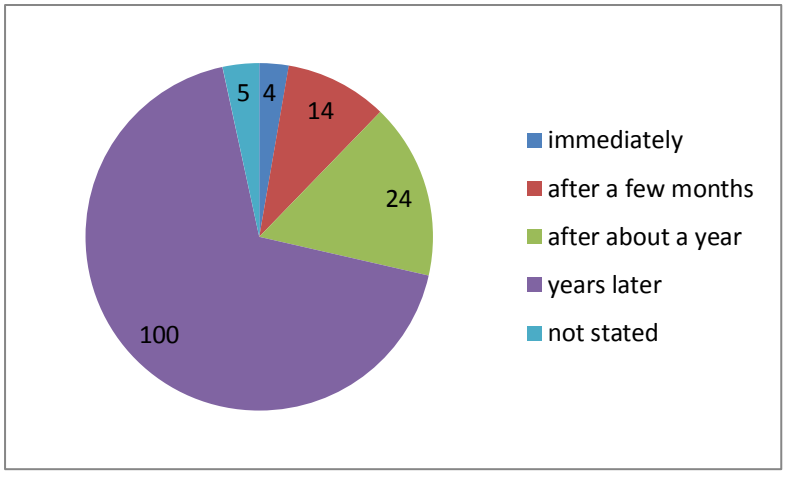
Employment status



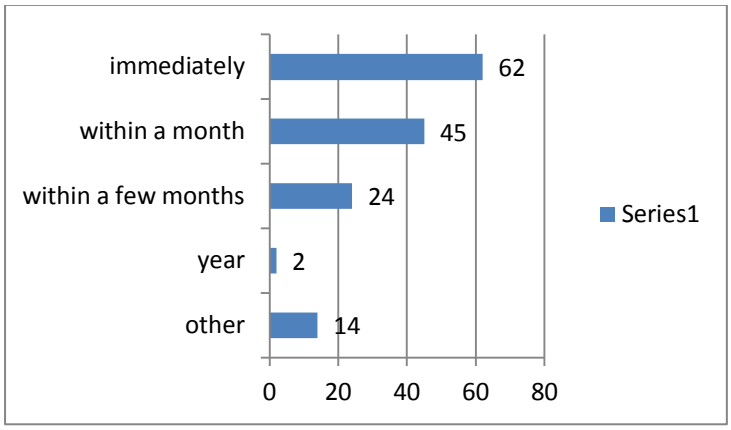
Geographical location



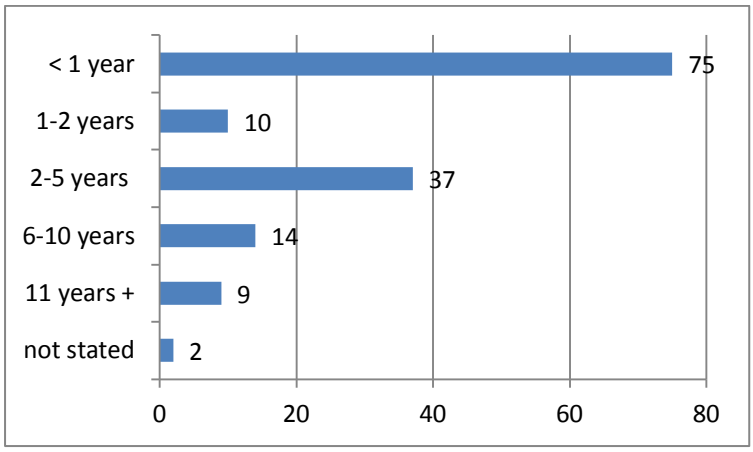
When sought lipreading class – time post-onset of hearing loss



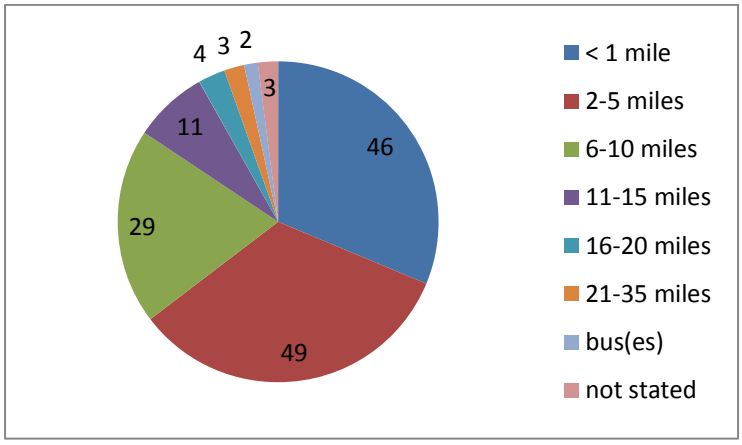
How quickly started class after information sought



How long attending lipreading class



Travelling distance to lipreading class



Appendix 8 Quotes from lipreading class member questionnaire responses

- *How did you find out about the lipreading class you are attending?*

'I knew nothing of classes to help with hearing loss and it was a friend who saw a notice in a local paper who informed me.'

'By chance, spotted a poster for SISG Ayr on noticeboard at Crosshouse Hearing Clinic.'

'A notice in the local library.'

'I was given the information by an audiologist.'

'I searched on-line to find one in my area.'

'I knew nothing of classes to help with hearing loss and it was a friend who saw a notice in a local paper who informed me.'

'Knew there was one in this area but discovered it when playing bridge in the hall where there was a notice on the wall met in the hall I was in.'

'Wife told me having been advised by a friend who attended a class.'

'By someone already attending.'

- *What influenced your decision to try lipreading classes when you did?* and *What was the main reason you decided to go to lipreading classes when you did?*

'I thought it would be a big help with my deafness.'

'As soon as I was aware (without doubt) that my hearing was impaired - but not severely - I sought out lipreading. I knew hearing loss would only get worse and thought I might be ahead of the 'game'! I knew of someone else who had done this - in Dumfries.'

'I was concerned about the isolation caused by sudden deafness and the reduced ability to have a conversation. Also, I'm concerned about further deterioration.'

'Initially to meet others with the same disability. Also wished to learn to cope with deafness.'

'I need as much help as possible as my hearing loss is only going to get worse. Thought it would be best to start now rather than later.'

'I had lost confidence - was afraid to socialise in case I misheard and came out with the wrong or inappropriate remark!'

‘Even with hearing aids can still miss much and was becoming very frustrated.’

‘I felt it was absolutely necessary as I realised I was in fact already lipreading in order to communicate.’

‘I thought they would help me understand what people were saying to me.’

‘When I was working it became a problem with bosses getting frustrated by my lack of understanding.’

‘I just wanted to be more confident in company and hoped it would help me grasp the conversation especially when there was a lot of background noise.’

‘My family was telling me I was getting deafer.’

‘My friend convinced me that it would be suitable for me.’

‘Information from sister and thought it would help me.’

‘I had not considered it until the above visit.’ [after a visit to the sensory centre in Kirkcaldy]

‘Hearing was becoming worse quickly. I attended as soon as I heard of a class being available.’

‘I attended a taster session and decided to enrol for the course.’

‘Time and place of classes are convenient.’

‘It seemed a good idea that was worth investigating.’

‘I asked the question. What have I got to lose? If it was not for me, I stop going. If it is for me, I have gained.’

‘As an additional support to my aids. Had retired from work, so easier. Felt that should take advantage of all support available and to make life easier for my husband as well.’

Appendix 9 Benefits of attending lipreading classes

Thomson's (2010) six participants were current lipreading class members. Semi-structured interviews revealed the following themes in terms of perceived benefits of attending lipreading classes - inclusion, acceptance, a feeling of belonging, confidence. The experience of current lipreading class members was explored via a written postal questionnaire (see section 3.2.1). In addition to the responses reported in section 3.2.1 about timing and triggers to attend, class members also shared their experience about the benefits they felt from attending lipreading classes. The answers to the following two questions produced similar themes.

How has attending lipreading classes benefitted you?
If you had to choose one benefit to recommend lipreading classes to other people, what would it be?

The diagrams below and overleaf summarise very briefly the benefits reported. They are followed by some quotes from questionnaire responses.

Quotes from lipreading class members on the benefits of attending lipreading classes

‘Should be free to all who would benefit from them. Every bit as important as free medication.’

‘I feel that all I get out of lipreading class is invaluable. The classes are important to one's mental health as it is a means of ensuring one does not become isolated as can so easily happen with deafness. They encourage one to keep being out there doing things and enables one to laugh at one's mistakes and others' ignorance.’

‘Lipreading classes have been so rewarding in just the past six months. When I first noticed my hearing loss a couple of years ago, I was very embarrassed and didn't like to talk about it. I would just nod and smile when spoken to rather than admit I couldn't hear someone. Classes have made me more confident. I can now ask people to face me when speaking and do so clearly.

I even have a new hearing aid which I can talk to class members about who have one too. Before these classes I think I would have been so embarrassed to wear a hearing aid at 20. But now I know how common these issues are and there is no need to be embarrassed.’

‘Lipreading classes give me the confidence to get on with life.’

‘It is a very enjoyable, relaxing way to learn with friendly people who have experienced similar difficulties as you have yourself.’

‘There are useful and informative discussions at each class. We talk about what words are difficult to [lip]read and why. We have learnt to sign the alphabet and this is also a useful aid in conversation. A visit from a representative of Hearing Link provided information on the service provided for the hearing impaired at Edinburgh galleries. This also encouraged us to investigate for other services for the hearing impaired.’

‘I feel that all I get out of lipreading class is invaluable. The classes are important to one's mental health as it is a means of ensuring one does not become isolated as can so easily happen with deafness. They encourage one to keep being out there doing things and enables one to laugh at one's mistakes and others' ignorance.’

Appendix 10 Lipreading class focus groups - collated responses

- *Who are the main people who need up-to-date information to signpost people to lipreading classes?*

NHS/Health	**Local authorities/government organisations**
Doctors	Libraries
GP surgeries/medical centres – all staff including practice nurses, receptionists and practice managers	Schools, colleges (ie deaf awareness talks/talks about lipreading classes so that (grand)parents can be encouraged by pupils, students to try lipreading classes). (Guidance) teachers.
District nurses, community nurses, health visitors	Social work/services; home carers
Health centres	Disability awareness training officers
Private hearing aid dispensers, Boots, Specsavers	Access to Work staff, all agencies they employ
Audiology departments & private audiologists	Sensory loss/support teams
Hospitals, general out-patients/waiting rooms	(Online) helpdesks
Occupational therapists	Council offices, community councils
Hearing therapists	People working in job centres, public buildings
Sensory loss/support teams	Adult and community education
Online helpdesks (NHS 24?)	Day centres, lunch clubs
Opticians	DVLA
Dentists	PTAs
Private/Third Sector/other	**Individuals**
Local churches – ministers/vicar/priest	Lipreading group members as ambassadors
Retirement groups	(Close) friends and family, relatives, neighbours
Citizens' Advice Bureaux	Deaf community
Age Concern etc	
Small, local community groups, eg senior groups, WRI, Rotary, lunch clubs, day centres. Social club leaders.	
Charity support groups	
Sheltered housing wardens	
Carers' organisations	
Local fundraising events	
Hearing support charities - drop-ins, seniors events and information days, info on websites	
Employers/HR departments of employers where people with hearing loss work	
U3A	
Community cafés, community halls	
Adverts in supermarket chains, shops (eg post office, Co-op)	
Sports centres (eg to reach young people with loud noise-induced hearing loss), youth centres	
Unions	
MP/MSP	

- *What's the best word for people going to lipreading classes? … why?*

[Key: X = number of times chosen, emboldened text = most frequently suggested]

Lipreading class member XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

We are members of a class/club rather than students. X It is a class. X Some terms may put people off, if they feel they are not educationally equipped. Member makes you feel inclusive. I don't think you come thinking you will become an expert – you come to feel part of the hearing loss community. X

Lipreading learner (No fancy titles. It does what it says). XXXXXXXXXXXXXXXXX

Lipreading student XXX (No – implies tests, patronising – it implies a lot of study which would put many off coming to this support network) XX (for younger people) (or I go to a lipreading class – that includes learning or I am a lipreader.)

Something else? Please specify:

Deafness X Any or all of the above X (Lipreading) group member XXX Pupil X

Communication improver X Lipreader X Unhearing learner X Hearing – assistance X

I go to lipreading class X Attendee X Lipreading Jedi (NB not Jedi Master) X

- *Is 'lipreading classes' the right name? If not, what would you suggest instead?*

[Key: X = number of times chosen, emboldened text = most frequently suggested]

Lipreading class or classes XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX (more explanation on advertising X, it's a learning opportunity. X 'A rose is a rose' etc. X)

Lipreading group XXXXXXXXXX Lipreading support group X Deaf awareness X

'Classes' put some people off. 'Group' may be better. X Deaf club XX

It's more about learning strategies and support. X Hearing loss self-help/support classes X

No Lipreading is too narrow – need to include other related topics such as where to get help. X

– stigma. Dealing with (oncoming) deafness. Understanding without hearing. X

Hearing loss support group XX Classes for hard of hearing X Word of mouth XX

Hearing support programme XX Support group X Social group X

Communication X Hearing and communication support X Communication sessions X

Hearing communication class XX Communication classes X Hearing assist X

Communication skills X Communication support group X Watch and learn X

Hearing Bee (Wee Scottish Hearing Bee, with a bumblebee as logo) X

Lipspelling management X Listen and speak, mix, taking part X

Lipreading and hearing skills (Chirnside) X

It's not the right name because we get a wide variety of support and advice and help to find the right people to sort out problems. Thought about this, but a title to cover everything? X

Improving your life with a hearing loss – lipreading and other skills, and information sessions – benefits X Visual communication enhancement (VCE) Visual hearing skills (both Dundee)

Much more than just lipreading. Signing - information - access to services. X

Hearing with eyes (Dundee) Kindle – lips class X Watch my lips group X The lipshapers group X (all three Eyemouth)

- *What are the best ways to practise lipreading in between classes and when you've finished going to classes?*

[Key: X = number of times suggested]

Through loop X One to one X Through tutors online/websites XXXXX

Using a mirror (practise in the mirror to see what sounds look like) XXXXXXXXXXXXXXXXXXX

Observation – being aware of other people's facial expressions and lip movements XX

People/talk watching XXXXXXXXXXX Being aware XXX

Attending your own social groups XXXXX Different scenarios X

Access to computer and web lipreading and DVD, online eg Youtube XXXXXX

DVD books – as in audio books, but seeing the person read the book X

'Watch this face' XX Support from family and friends XX

Practise with family and friends XXXXXXXXXXXXXX Get someone to practise with X

Practise with fellow student X

Practise teaching yourself the shape of speech movements learned at class. X

Try without hearing aids and people facing you and speaking clearly XX

Dialogue X Shopping X Social occasions X

Make sure your family, friends, colleagues etc know that you lipread and also how they may speak appropriately to help you. Also make them aware of any other strategies you use to help hearing/communication so that they can help and perhaps bring others on board. X

Ask for clearer and slower use of words in any situation X Getting other people to help by speaking more clearly X Say 'Look at me please as I have a hearing loss.' X

Come clean – can't hear. Explain what is helpful to them. X

Ask people to look straight at your face so that it makes it easier to lipread X

Make sure you mix with other people as much as possible because being deaf is life limiting X

Talk to people/get together with others XX Think about the tips we have learned in class X

TV (and media) XXXXXXX Turn down the sound on TV (not off) XX

Watch TV on mute (eg weather forecast and football) XXXXXXXXXXXX TV subtitles off XXXX

Watch TV (especially parliament) XXXX TV games X

Watching a newsreader with the sound turned down (not off) XX

Watch TV with subtitles and watch the lips of the speaker X

Watch newsreels etc (talking heads) X

Search the iplayer for a programme with a clear speaker facing you. Watch several times, once to enjoy, repeatedly with sound to lipread/hear/read subtitles, and eventually with sound down. X

In company, try to select someone with good diction X

Tell people you're deaf, don't struggle X

App for computer or iphone X [NB App for lipreading practice is under development in Australia]

- *How can we encourage more people to go to lipreading classes?*

[Key: X = number of times chosen, emboldened text = most frequently suggested]

The table overleaf shows how lipreading class members' opinions on how more people can be encouraged to go to lipreading classes.

Advertising/publicity	**Talks, individuals**
By targeting the people in question 1.	Get a high-profile celebrity to face a campaign
More advertising, publicity (especially in local papers – report telling of advantages of attending classes and **in places where there's deaf persons**)	Spread the information on what exactly goes on, experience of learning, companionship
Advertise on local radio and national	Talking about the advantage the class gives you when you are in others' company
Advertise benefits of attending. Positive advertising	Talk about it more – more open
Poster, leaflets in hospitals and clinics (but can miss these if taken immediately for appointment)	Spread the word and underline the <u>many</u> areas of support given, plus it's fun
Getting the information out there	Open days
More about lipreading in media	**Word of mouth**
Advertising at football games	Personal contacts
Hearing support charities need to flag classes up to all members, and their volunteers know to advertise them.	We need to get the message out to hearing impaired people of all ages about the benefits of communication classes to the quality of their lives – at home, at work, family relationships and social inclusion.
Notices in public places, colleges, theatres (hand out info on the way out), cinemas (card given with ticket)	Speak to people about hearing loss and how lipreading could help them to cope better, gain confidence/less isolated
Government advertising – TV, billboards, bus stops	Enthusiasm
Articles and adverts in the local press, maybe time for articles into national magazines	Charities and sensory impairment teams giving talks about support and give information
Inform re: the difference between lipreading and signing	We need a communication navigator
Broadcast more information about it	Talks to Tinnitus Society, 50+ clubs, Probus
Awareness programme (posters, TV plug) – like breast cancer, CVA, dementia etc	Outlining own personal experience stating short and long term benefits
Poster competition for school-children	
Colleges more aware	
National lipreading day	
Separate ad in adult education programme, explaining who lipreading classes are beneficial for and why. More online presence and personal stories.	
Other	**Other**
Change the name, as it sounds too formal	Taster sessions, information sessions
Motivate people to come to classes	Choice of time, eg after work
Everyone who has an appointment at audiology should be given a list of contacts for classes	Make it clear it's for both men and women, no exams, no pressure, no homework
Topic on one of the TV soaps	Spend a short time daily without hearing aid
Make classes free – some people can't afford charge	Work places being more willing to give staff time to attend
Have more classes!	Charities encouraging volunteers to link up with potential users to buddy new class members
Organise a public/open meeting at GP clinics	

- *Other comments and suggestions*

Bathgate – inequitable re: cost for some – some people need to use their Individual Learning Account to attend classes.

Lipreading classes are nothing to do with signing, although finger spelling of the initial letter of a difficult word is useful. (several classes)

Girvan - presentations – hopeless if the lights are dimmed or turned off. Media to signpost people to lipreading classes - electronic notice boards, local radio and newspapers. Elderly people are more reserved about asking for help.

Armadale – 'look – listen – learn' – adaption from 'look – listen – think'.

Haddington – publicity in places where people are aware of their hearing loss (eg theatre). Poppy Scotland is proactive re: hearing loss. BBC game shows – lack of deaf awareness re: audience.

Kirkcaldy – cost of advertising.

Broxburn – publicity needs to be eye-catching. Blood Transfusion Service – use their publicity method – blanket coverage – posters and in local paper – in the run-up to a service starting. TV presenters should be made aware of clear articulation.

Blairgowrie – cost of classes for some, not for others. All people should be encouraged to speak louder, including people with/without hearing loss.

Chirnside – look-listen-learn is already a strap-line for lipreading classes (ATLA?).

Eyemouth – need to consider increasing population of speakers of English as a second language in Scotland – implication both for tutors and class members. (One class member spoke English second to Spanish.) Contact Robin Wickes, Hearing Link re: lipreading ambassadors. Read 'Deaf Sentences' by David Lodge. Importance of service (eg deaf awareness sessions, groups) for carer/family members etc too. Using posters as advert for classes – most people only look at posters if they are looking for something specific. Possible to get permission to use the clip of the opening section of the Morse series episode 'The Silent World of Nicholas Quinn'? It demonstrates hearing loss 'from the inside' really well. Two pushes needed to improve access – one that people know the class runs in their area, the second to encourage people to attend. David Somersgill video re: sensory impairment, includes clip by lipreading class members.

Perth – thinking about breaking down proportionate cost of advertising in the papers/on the TV – relative impact?

Ayr user reference group – train some nurses to be deaf aware, to be called upon if required by wards.

Appendix 11 Hints and tips from current lipreading class members

Hints and tips from lipreading class members on how to practise lipreading if you can't go to a lipreading class

- Come clean – tell people when you can't hear what they're saying. Explain to them what you find helpful... don't struggle.
- Make sure that your family, friends and others know how they can help, including facing you, speaking clearly and not too slowly. Shouting won't help.
- Lipreading requires a lot of concentration, so practise only for a short time for most benefit.
- Use a mirror to talk to yourself. Watch your own face. Practise speaking to see what shapes the sounds make.
- Practise eye contact with yourself in a mirror. This gets you used to eye contact with others when you're lipreading.
- Don't over-exaggerate your lip movements – that makes it more difficult to lipread.
- Get your family and/or friends – people you know well – to practise with you.
- Wear your glasses – it's clearer then to lipread.
- Observe – always be aware of other people's facial expressions and lip movements.
- Take the opportunity to try lipreading when you're in company. Some people are easier to lipread than others – those who speak more slowly and clearly and are facing you.
- Turn the TV sound down and watch and listen very carefully. This is very difficult if there's more than one speaker and if they're not facing you.
- Watch a newsreader with the sound turned down (not off).
- Search the iplayer for a programme with a clear speaker facing you. Watch several times – once to enjoy, then repeatedly with sound to lipread/hear/read the subtitles and, eventually, with the sound down. If you have an e-reader or tablet, watch the programme on this, as it reduces the distance from the screen to you.
- Don't be put off if you can't get it all – very few people will.
- Go online if you can – there's free websites and resources you can buy. www.scotlipreading.org.uk/index.php/download_file/69/

Remember, though, that different things suit, and work, for different people with different kinds of hearing loss.

Look Listen Think

Appendix 12 Summary of results from the 16-25 year olds survey

Of the four male and one female respondents, one was 18, one 19, two 20 and one 23 years old. All five wore two hearing aids. They all use the internet at home and on the move, while three use it also at a friend or family member's house. Three use it every day and two several times a week. Two also use the internet at work and/or in a library. Their usage is for a wide range of activities, including (in descending frequency) email and social media, finding information and shopping, watching the news and TV online and gaming, information about hearing loss. They made more use of text-based than speech-based applications (ie Facebook and Twitter were used more than Skype or Facetime). Four reported that they knew what lipreading classes are (see the quotes below) and one of the respondents had received lipreading tuition at school and this had been 'a bit helpful'.

'It's about learning how to lipread other people, but also teachers on wider issues in the deaf community as well.'

'There are classes that train people how to read lips and ways of how to use this.'

'Where you get a session with either a few people or one-one and talk about things with no sound.'

'its where u go and learn to lip read.'

There was a range of interest in going to lipreading classes (yes, now – 1; maybe now – 1; not just now – 1; maybe in the future – 1; no response – 1):

'I'd be extremely interested in lip reading classes, I feel that it would greatly benefit me in terms of accessing information.'

and less interest in online lipreading learning (maybe now – 1; maybe in the future – 1; never- 2; no response – 1):

'It'd depend if the information was done through text then yes but if it was speech through a video online then I wouldn't like it.'

Classes offered as part of a wider college course was suggested twice as the best way for young people with hearing loss to learn and practise lipreading once they've left school:

'Community setting or online if done in the right way (i.e deaf friendly).'

'College courses on BSL and lipreading'

'college'

Appendix 13 'Managing hearing loss when seeking or in employment' survey (Scottish results)

NB Percentages reported below have been rounded. Not everyone answered all the questions and not all questions were relevant for all respondents.

- *Age*

Age bracket	No. of responses
16-24	3
25-34	3
35-44	13
45-54	11
55-64	22
65 or over	4
Total	56

- *How useful lipreading classes were, if have been used*

Usefulness	
No. of responses	50
No. used classes	16
Usefulness rating:	
Not at all useful	0%
Not very useful	0%
Fairly useful	25%
Very useful	75%

- *How useful would it be for lipreading training to be delivered in group sessions, 1:1 sessions and via online support*

Method of delivery	Group sessions	1:1 sessions	Online support
No. of responses	53	53	52

Usefulness rating:	Group sessions	1:1 sessions	Online support
Not at all useful	4	4	8
Not very useful	3	2	4
Fairly useful	10	12	11
Very useful	28	28	19
Don't know	8	7	10
Fairly+very useful	72%	75%	57%

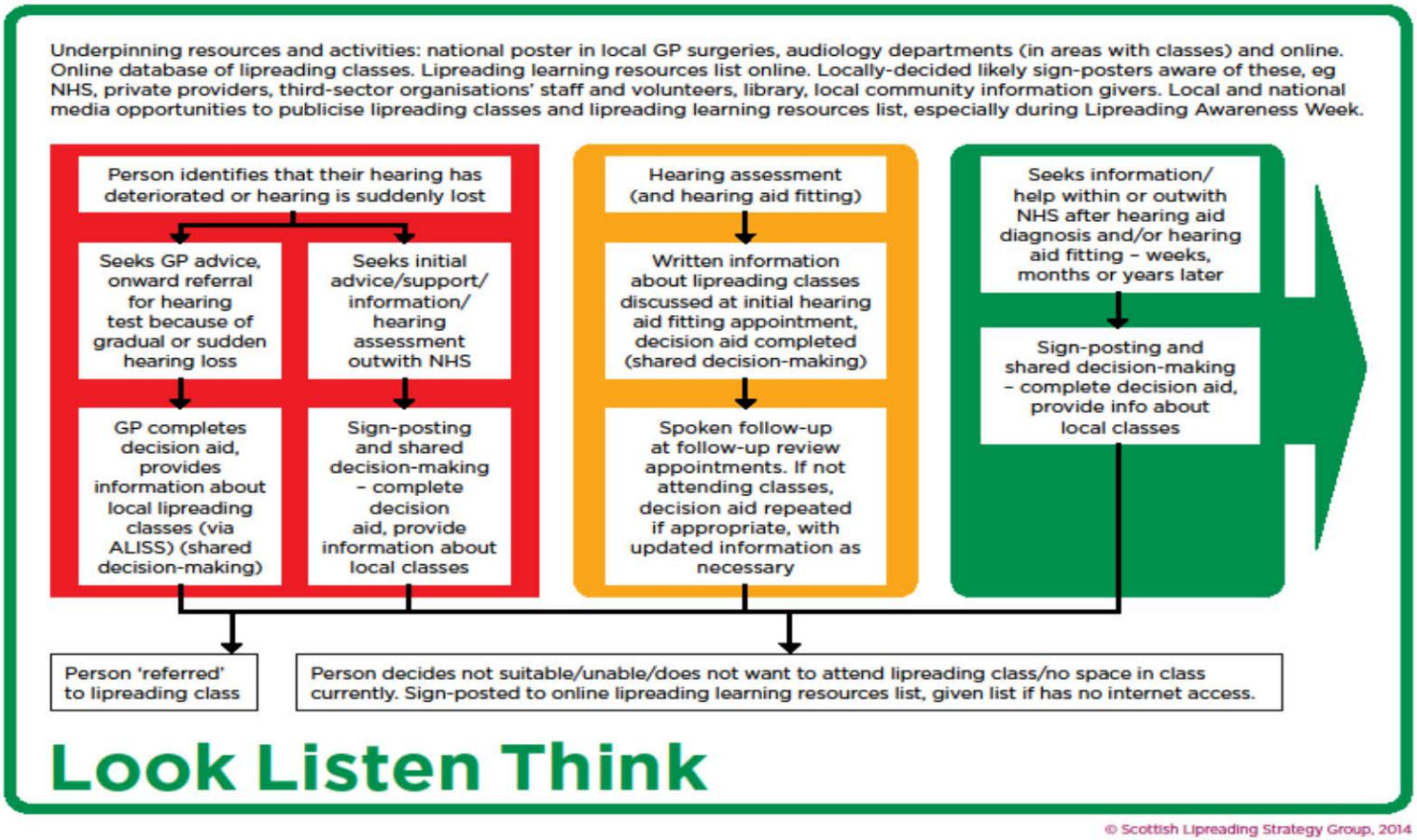
- *Priority elements for inclusion within a package of support for people with hearing loss (based on choice of three from a list)*

Priority areas for support package	No. of respondents (N = 56)	Percentage
Lipreading	32	57
Information on hearing loss at work	31	55
Equipment	29	52
Managing hearing loss	27	48
Emotional and peer support	20	36
Hearing aid support	17	30
Other information for people with hearing loss	9	16

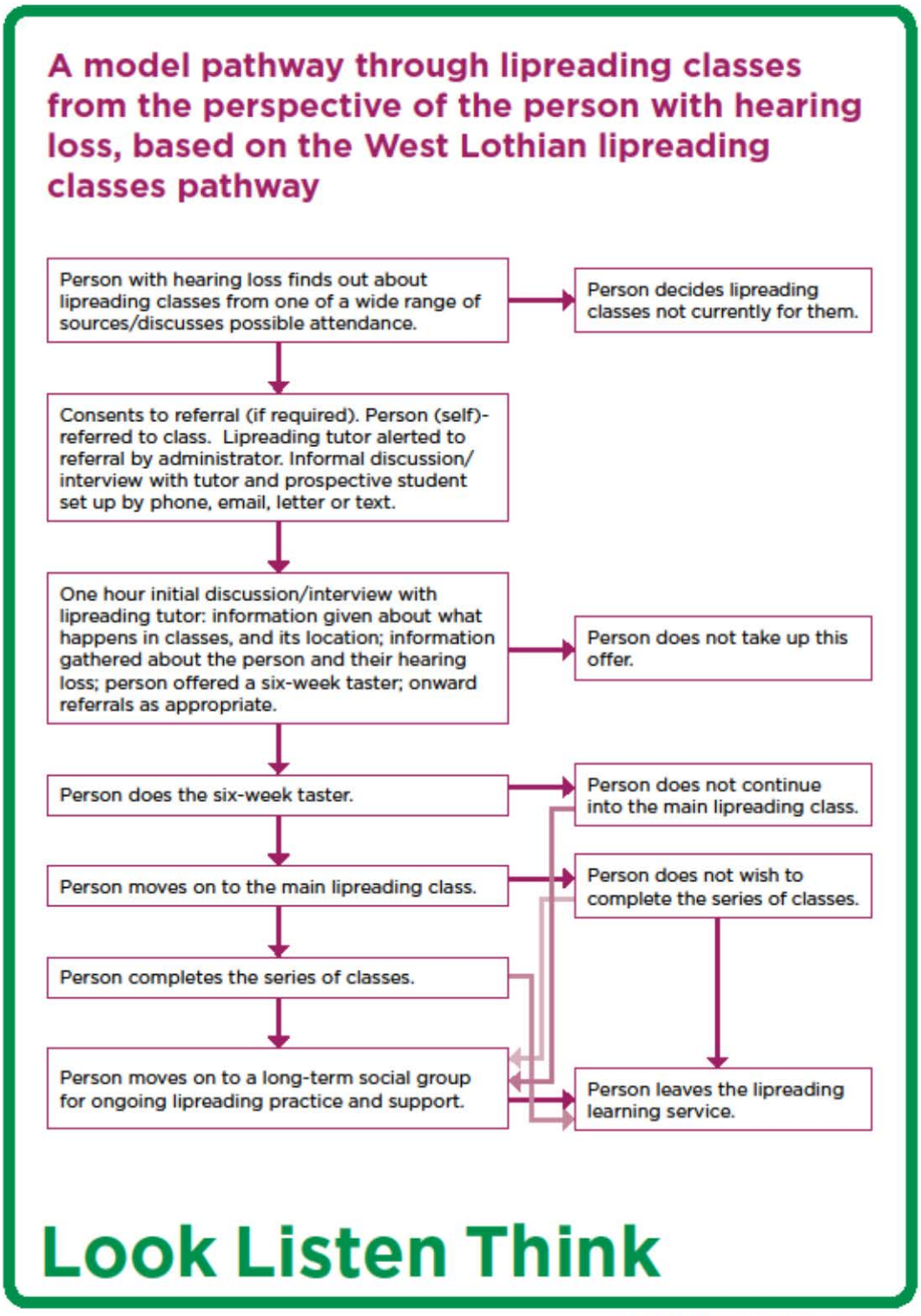
- *Ideal timing to be given information about lipreading classes in relation to the onset of hearing loss*

No. of responses	49
When I first visited my GP about my hearing loss	10%
Immediately at the point of hearing loss diagnosis	47%
A few months after diagnosis	22%
About a year after diagnosis	0%
Years later after diagnosis	20%

Appendix 14 Pathway to lipreading classes



Appendix 15 Pathway through lipreading classes



Appendix 16 Alternative and technology-mediated models of service delivery

Increased use of technology for videoconferencing, ie remote delivery of lipreading classes/learning

- Scotland's Digital Future: A Strategy for Scotland (The Scottish Government, 2011)

Part of this strategy is the aim to increase digital participation: 'people's ability to gain access to digital technology, and understand how to use it creatively. Increased digital participation can improve people's quality of life, boost economic growth and allow more effective delivery of public services' (p. 21).

- Lipreading classes via videoconferencing

The general public uses a range of off-the-shelf software to have (mainly one-to-one) video conversations using the internet, eg Skype, Cisco Jabber, Jacuti, Oovoo, powownow. Some of these are free, some have a cost implication, eg multiple Skype account. Some systems are more secure than others. Telerehabilitation is a well-established working practice, being promoted by NHS Scotland (Hill, 2010) and NHS Scotland has videoconferencing nationwide. Other dedicated software provide the platform for remote, virtual meetings and training sessions, eg Cisco Webex, gotomeeting, gototraining. There is currently no known 'telelipreading' learning or classes delivered in Scotland.

Lipreading classes via videoconferencing – essential characteristics:

- ✓ Clarity of sound and picture
- ✓ No echo/feedback
- ✓ No time delay – synchronisation of sound and picture
- ✓ Clear view of tutor's lip movements, facial expression and body language
- ✓ Class participants able to see each other
- ✓ White board facility.

BT Videconferencing facilitated trials of one of the systems they use. One of the tutors involved commented that 'I thoroughly enjoyed this morning. What a lovely way to connect with people. Just imagine talking/teaching people possibly in the comfort of their own home. No background noises etc. and for people who are isolated or don't have the confidence to attend a lipreading group it would be fantastic. It may even boost their morale to enable them to socialise and interact.' The trials suggest that videoconferencing may be a possible alternative way of delivering lipreading learning for people unable to attend a lipreading class.

This approach to delivering lipreading classes may then be a way forward for the future. However, currently Broadband speed limitations and the use of head-sets for sound limit its potential. Lipreading classes via videoconferencing would be completely reliant on the technology working (ie

sufficient and reliable Broadband speed) and on ongoing local facilitation by a local volunteer/ facilitator who would have to be trained re: deaf awareness and lipreading class delivery and have significant skills with IT and interpersonal interaction. Arguably, this method would work for older as well as younger people as the local facilitator would be responsible for the technological support. The development and maintenance of group dynamics with the remote tutor would require special attention and may be less satisfactory than face-to-face relationship-building, eg the tutor might physically attend the first session and then only occasionally thereafter. The lipreading tutor would have to be competent and confident with the technology as well as comfortable with this method of class teaching.

- Lipreading 'MOOC'

The Open University hosts an increasing range of massive open online courses (MOOCs). It would be possible to develop such a resource for lipreading learning, not necessarily linked to the OU. Short courses are delivered via a range of audio-visual materials. Students access support via online discussion forums and sometimes via a Google-mediated lecture/question and answer session. Some adults with hearing loss may already be familiar with online tutorials if they have done any distance learning, eg Elluminate (OU), Blackboard.

Participants are not assessed but can buy a certificate of participation. While this approach would provide participants with the opportunity to develop their lipreading skills, they would not have the additional benefits of traditional lipreading classes that relate to the support received via interaction with the tutor and peers and the information, advice and strategies discussed at classes. Adequate and reliable Broadband would be an essential requirement.

- Online language learning

In some ways, learning a language online can serve as a comparator for lipreading classes (Bert Smale). Online language learning classes are based on Broadband connection via Skype and delivered both one-to-one (eg http://www.verbalplanet.com/faq.asp, http://www.myngle.com/) and to groups of students (eg http://eteachergroup.com/how-we-teach) – 'Lessons are conducted using state-of-the-art video conferencing technology. Upon registration, students receive a username and password required to gain entry into class. Lesson content is delivered by voice, video, and "shared whiteboard" technology. Live video enables students to see the teacher during the lesson, and the teacher can see any students with a web cam (optional). The teacher and students speak and interact in real-time using their PC headsets which include a microphone.'

- Online non-interactive lipreading learning

This is already available in British English via Youtube videos (eg those made by Heidi Walsh - http://www.youtube.com/watch?v=ZJs0BY7m3UQ) or websites (eg www.lipreadingpractice.org.uk). These cannot be a substitute for lipreading classes as traditionally delivered as they lack the very important element of interaction with the tutor and peers as well as the information, advice and strategies that provide benefit to lipreading class members. However, they do provide an opportunity for lipreading learning where this is not possible for lack of a local lipreading class.

- Summary – videoconferencing and lipreading classes

Using a system such as Cisco Webex might currently be a way forward for a lipreading tutor working one-to-one with a remote student, rather than with a group of students. The student (and tutor) would have to be competent and confident with computer technology and able and comfortable with using the phone. Broadband speed would need to be sufficient. This type of service delivery would limit the benefit compared to that gained by attending a class, but would provide an interactive lipreading learning opportunity where otherwise this would not exist. There is no Scottish infrastructure for one-to-one lipreading tutoring, eg payment arrangement, risk assessment etc. If the technology were eventually able to support classes, teaching methods would still need to be adapted for this different medium.

Other possible models of lipreading class delivery for people living in remote and rural areas

Apart from the use of videoconferencing, several other possible models of lipreading class delivery are worthy of exploration and/or trial.

- Local occasional weekend courses

Benefits: able to develop group dynamics; time commitment concentrated for tutors and class members; learning pattern known to be effective one, ie early intensive learning (cf piano, driving); class members will make new local contacts for ongoing peer support

Challenges: different individual learning patterns – intensive is good for some, but not for others; lack of ongoing practice group/peer support afterwards if class members are not all from the same local area; intensity of effort for class members and tutors; travel and accommodation costs - class members and tutors.

One tutor has experience of delivering this model of service delivery in Orkney in 2011. The initial Friday was 'getting to know you' with the Saturday and Sunday being used for lipreading learning and practice. There was a follow-up weekend six months later.

- Centralised blocks of classes

Benefits: able to develop group dynamics; time commitment concentrated for tutors and class members; learning pattern known to be effective one, ie early intensive learning (cf piano, driving); class members will make new contacts for ongoing peer support (with class members from own and/or different areas).

Challenges: different individual learning patterns – intensive is good for some, but not for others; travel and accommodation costs; travel time; capacity of lipreading tutors to run a week-long course in view of other classes running and other commitments.

- Hybrid model of service – intensive weekend followed by locally facilitated videoconferenced classes

Benefits: tutor can get to know students more easily and quickly face to face during the initial weekend; learning pattern known to be effective one, ie early intensive learning (cf piano, driving); encourages self management, ie peer support in between sessions and ongoing after classes have finished; class members have some ongoing tutor support.

Challenges: ongoing facilitator(s) for remote classes; training and support for local facilitator, initial local engagement with possible class members to get a viable number signed up; costs for accommodation for classes and overnight for class members and tutors; lipreading tutor availability?

- Upskill local NHS staff, eg speech and language therapists (SLTs) and audiologists

There are speech and language therapists and audiologists in all NHS boards including the remote and rural areas of Scotland. A possible way forward would be to train one or two in each health board area to become qualified lipreading tutors, via a modified SCTTL course. Speech and language therapists and audiologists could offer 1:1 or classes when the latter are viable as an integral part of their post.

- More tutors with dual qualification, eg speech and language therapy, audiology

In the longer-term, it would be possible in principle to significantly increase the number of lipreading tutors in Scotland by the option of qualifying as a lipreading tutor while studying to become a speech and language therapist or an audiologist. In practice, this would require the SCTTL course to be integrated into Queen Margaret University (which has a Speech and Hearing Division) or another educational institution and for sufficient practice placements to be available or another model of practical experience and assessment developed.

What kind of lipreading class service provision will adults with hearing loss want in the future?

The suggestions above are all possible ways forward to improve access to lipreading classes, especially for services to adults with hearing loss who live in remote and rural areas of Scotland where there are currently no lipreading classes. Figure 1 in Dew et al. (2013) shows a framework for delivering a remote and rural person-centred approach to delivering allied health professions' therapy services that would be applicable to lipreading services. However, it is fundamental also to consider whether people in Scotland would access these technology-based and other ways to learn lipreading in the future (see section 3.3).

Appendix 17 Lipreading class decision aid

Are lipreading classes for you?

What are lipreading classes?

- They develop your ability to recognise different lip shapes and the patterns they make when you're speaking, to fill in the gaps of speech you don't hear, and to use clues from the situation so that you find conversations easier.
- They teach you about other ways to make conversations easier (such as knowing the best place to sit in a group).
- They provide useful information about services and equipment for people with hearing loss.
- They are a good way to meet other people with hearing loss.

Would lipreading classes suit me?	I need to be able to understand conversations in English. I need to be okay with groups. I need to be able to see and concentrate quite well. I need to be willing to 'give it a go'.
What's involved?	Taking part in weekly classes as regularly as you can. Using what you learn to help make conversation easier.
What's expected from me?	Attend the classes regularly. Join in and try the exercises at the classes when you feel ready to do so.
What are the positives?	I'll learn how to lipread better. I'll learn other ways to help me in conversations with people. I'll get the chance to talk to other people with hearing loss and pick up tips and advice. I'll find out about useful equipment and local services. My confidence will be boosted.
What if there's not a class near me?	Try to develop your own lipreading skills yourself. Try the lipreading hints and tips on **www.scotlipreading.org.uk** Try the online links and/or other resources on **www.scotlipreading.org.uk** to see which way of practising lipreading suits you best.
Are there any other options available to me?	See the suggestions above Think about lipreading classes again in a few months.

Look Listen Think

Appendix 18 'Are lipreading classes for you?' quiz

Are lipreading classes for you?

Circle your response to each of the questions.

Are you frustrated by not being able to hear conversation?			
Are you ready to do something about it?			
Are you keen to find out about equipment and services to help you cope better with your hearing loss?			
Are you happy to learn alongside other people and share your experiences in a group?			
How willing are you generally to 'give it a go'?			
How well do you understand the English language? (Classes in Scotland are currently delivered in English)			
How much do you find yourself looking at the person you're talking to?			
How good is your eyesight?			
How good is your concentration?			
How good is your memory?			
Do you wish to join a lipreading class?			

Look Listen Think

Appendix 19 Resource development - stakeholder consultation

The stakeholders who contributed to the development of the resources produced during this project and discussed in sections 3.4 (pathways), section 3.6 (shared decision-making), section 3.8 (marketing) and 3.9 (list of recommended lipreading learning resources) are listed below.

Stakeholders	Date
Lipreading class members	March – May 2014
Forth Valley Self-help Group	January – June 2014
Lipreading tutors and student tutors	January – November 2014
User reference groups (via Hearing Link) (two in Ayr and one in Edinburgh)	June – July 2014
Audiology Heads of Service	June 2014
Scottish Lipreading Strategy Group	January – June 2014
General population, via Scottish Course to Train Tutors of Lipreading website	September – November 2014

Appendix 20 Marketing resources developed during 'On everybody's lips'

These resources are/will be available in the FAQs section of www.scotlipreading.org.uk. The plan is for some of these to be joined by video clips.

- Why go to lipreading classes?
- What are lipreading classes about?
- Am I already lipreading?
- Benefits of attending lipreading classes
- List of lipreading learning resources
- Hints and tips from current lipreading class members
- Lipreading class decision aid
- Quiz – are lipreading classes for you?
- Personal story – life-long lipreader
- Personal story – lipreading class member
- How can I help someone who lipreads?

These resources are in the tutor-only log-in section of www.scotlipreading.org.uk:

- Editable lipreading class poster
- Quiz – are lipreading classes for you? (background and how to interpret 'score')
- Easy lipreading screening test
- Screening visual identification of consonants
- Pathways to lipreading classes and through lipreading classes
- Information about your class form.

Appendix 21 Lipreading learning resource list

Ways to practise lipreading

Free online resources

Lipreading practice – a free-to-use British website containing lipreading video clips and written exercises to help people develop their lipreading skills.

www.lipreadingpractice.co.uk

Mini Lesson 01 Sounds and Lipshapes: The Consonants – the first in a series of videos from Heidi Walsh, a qualified lipreading teacher.

www.youtube.com/watch?v=ZJs0BY7m3UQ

Resources to buy

Watch this Face – a book published by Action on Hearing Loss containing photographs of lipshapes that illustrate sounds, exercises to practice and common pitfalls.

www.actiononhearingloss.org.uk/shop/watch-this-face-product-pa05470912.aspx

Read my Lips – a game produced in the UK. You have just have just 20 seconds to 'lip' words and sayings for everyone else to guess.

www.fishpond.co.uk/Toys/Read-My-Lips-Rockets-Toys/9999927541185

Lipreading products from Australia – flashcards and a poster with photographs of lips demonstrating various speech sounds, a DVD and an interactive CD-ROM full of learning materials..

www.lipread.com.au

Look Listen Think