



The Impact of hearing loss in the North of Tyne region

A summary of new and recent evidence

September 2021

Deaflink North East

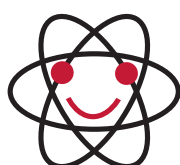
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Introduction:

Gathering up-to-date evidence is a key step in the further development of Deaflink's Hard of Hearing (HoH) work. The charity's offer to those experiencing hearing loss has been disrupted due to the Covid-19 pandemic, with in-person group work being held on pause, and one-to-one support shifting online. At the same time, the pandemic has brought profound challenges to the HoH community, two being frequently cited are: (1) the wearing of face masks preventing opportunity to lip-read; (2) the shift to video-technologies presenting difficulties for many who are HoH.

Alongside these new issues are more longstanding communication challenges facing those with hearing loss, such as challenges using telephony, plus a range of related issues pertaining to social isolation and mental/emotional wellbeing. Therefore, Deaflink is particularly eager to know how it can adapt to better serve the Hard of Hearing community going forward.

Objectives:

1) Research and present evidence about the experiences and needs of local people.

We are interested in listening to Lived Experience, focusing on perspectives on day-to-day life for people living in the North of Tyne area with varying degrees of hearing loss.

- How do people with hearing loss describe their needs?
- Of these expressed needs, explore which is Deaflink well-suited to support.
 - Identify any patterns or trends within the evidence
 - Sketch out what an updated support offer might look like

2) Research and present evidence about the economic impact of hearing loss.

To provide a clearer and up-to-date picture of the Hard of Hearing population in the geographic area that Deaflink serves, namely the North of Tyne region, encompassing Newcastle, North Tyneside and Northumberland.

- How many people are affected, and to what extent?
 - By age cohort
 - By Local Authority area
- Use this information to produce an estimate of the economic impact that unaddressed hearing loss is having within the region.

Headline Summary

The failure to support people with hearing loss is costing the North of Tyne economy £66 million per year in lost productivity. This figure is based on modelling of the number of people with hearing loss retiring from the workforce earlier as a result of the condition. Calculations shown on page 16.

Deaflink believes that training interventions targeted at the right point in the life course can enable many of these people to enjoy their careers for longer, and as a result also benefit the wider regional economy. We are proposing to pilot and then scale up a short course designed to help people to deal with hearing loss, including emotional support, information about technological solutions, rights and entitlements and what workplace adjustments may be suitable for them.

Part 1, Personal Impacts

We wanted to provide an up-to-date and regionally-relevant snapshot of the impact of hearing loss, in order to be able to shape and re-shape services accordingly. The central question was:

- What kind of challenges and impacts are experienced by those who are Hard of Hearing as they go about their day-to-day lives?

To gain insight into this question we undertook a hearing loss survey. Prior to building the survey we looked at earlier national research, to establish the broad terrain.

What are the national headlines?

In 2013 the RNID (whilst they were still branded 'Action On hearing loss) published a study called "Hidden Disadvantage: Why people with hearing loss are still losing out at work". The study was based on **a survey completed by 442 people with hearing loss**. About half of the respondents had already retired with most of the balance reporting they were still working.

Of those respondents who had retired:

- 66% said they had retired early and, of those, 41% said this was related to hearing loss.
 - Put differently, **of all those retired, 27% had done so early due to hearing loss**.
- Reasons for early retirement (due to hearing loss) included difficulties in fulfilling day-to-day-tasks, such as using the phone, or communication challenges with colleagues.

Of the whole group of respondents:

- 77% felt that hearing loss had affected them at work.
- 74% felt their employment opportunities were more limited because of their hearing loss.
- 70% of respondents agreed that hearing loss sometimes prevented them from fulfilling their potential at work.
- 68% agreed they sometimes felt isolated at work because of their hearing loss.

Wider research by the RNID has found that:

- Hearing loss can lead to withdrawal from social situations, emotional distress, and depression. Research shows that hearing loss increases the risk of loneliness, but only for those who don't wear hearing aids.
- Hearing loss can increase the risk of dementia by up to five times, but evidence also suggests that hearing aids may reduce these risks.
- Many more people could benefit from hearing aids than are currently doing so – only around 40% of people who need hearing aids have them.
- On average, people wait 10 years before seeking help for their hearing loss.
- Related to the point above, when people finally do inform their GPs of their hearing loss there is a failure to refer to NHS audiology services in 30–45% of cases.

Findings from our own survey

The research published by the RNID provided a helpful platform from which to begin our own study. We wanted to engage with people living in the area that Deaflink serves – the North of Tyne combined region. It was felt to be important to be informed by authentic perspectives from people who could benefit directly from services Deaflink may be able to offer.

50 people participated, aged from 20 to 75, with the majority aged over 40. Both women and men participated, slightly more women than men being represented in the sample.

We asked people to tell us how hearing loss impacted:

- their work life...
- their family relationships and friendships...
- their hobbies and/or volunteering...
- any other way their life has been impacted...

Summary of written responses

The boxes on the following pages offer a selection of survey responses that are indicative of the overall scope and sentiment of the feedback received.

How it impacted me at work...

Struggled in meetings hearing important information.

I worked as a Registered Childminder and talking to parents with noisy children in the background was awkward - keep having to say 'pardon'.

I miss detail. I feel less of a useful employee.

Especially hard now face to face with people wearing masks. Really made it obvious how much I lip read.

Difficulty with phones and telling work mates you are going deaf can result in being treated as daft.

As a teacher I found I had to ask pupils to repeat what they had said, I had to insist they put up their hands so I knew where the voice was coming from. My Headteacher also made fun of me and kept asking me to repeat what I said to him. He thought this was funny!

It was the main reason for retiring as I was a staff nurse and it became a nightmare. Some staff got angry, or laughed at me. Some patients (who been on ventilators etc.) have hardly any volume when speaking.

Couldn't hear the workmate or foreman giving instructions had to ask if they could repeat what was said.

It started to cause problems as I worked in a theatre and gave instructions to others working back stage.

Having to ask people to constantly repeat what they said.

Unable to participate in meetings or use the telephone.

One boss didn't believe me until I went back to the Dr and finally got hearing aids. Another boss in the NHS thought I made it up to get out of being on the call centre team.

I was overlooked for promotion.

Feeling excluded and isolated.

Often unaware people were talking to me.

Misheard words. Misheard instructions. Felt left out.

Couldn't use phones.

Had difficulty hearing in an open plan office because of background noise.

How it impacted my family relationships and friendships...

They have had a lot of patience with me but it can be hard at times.
Tend to keep to ourselves as going out in groups is difficult. Family know and make allowances.
They get cross with me. People lose their temper with me.
Hard to be included in group chats, miss a lot of what is being said. Miss spontaneous comments!
Misunderstandings and missed out on conversations.
Family are the worst, they still try to talk to me from other rooms, complain about subtitles on the TV.
Became reluctant to socialise, often when out with friends missed most of conversation, never felt included.
I hate going out in a group. Can't hear conversations properly.
It's difficult to hear if a large crowd or other noise caused problems to converse with others.
I felt that I wasn't really involved properly any more.
Frustrating for my husband when I was constantly asking what someone had said.
Having to ask people to constantly repeat what they said.
Have to text instead of using phone.
No longer socialise with either family or friends, feel very isolated in group situations.
I have lost confidence and become more isolated, avoiding social situations, due to difficulties in hearing and fatigue experienced as result of concentrating on understanding what is going on.
I tend to stay quiet as I get embarrassed when I don't hear something correctly as more often than not they'll take the mickey out of me and I hate that.
I don't mix much it's too much hassle. Makes it difficult to maintain relationships.
Can't join in conversations and hear in crowded situations. Don't go on nights out as can't hear.

How it impacted my hobbies and/or volunteering...

When starting anything new in a new environment it makes me insecure and anxious because of not being able to hear the conversations.
Don't have hobbies that includes other people and wouldn't volunteer because of hearing loss.
I tend to be solitary.
I have lots of hobbies but mainly do them at home and alone.
Still can hear music so fortunately can join in dancing and gym activities. Have lost pleasure in attending meetings such as local history and interest talks.
Miss music a lot, DIY and gardening is still ok.
Loved listening to my music and radio, sadly can't any more. Stopped volunteering as felt lost.
I've always been involved in roles involving 'listening' e.g. support work, counselling, information and advice, which I can no longer do. I am finding it difficult to identify other possible volunteering roles.
Difficulty hearing and participating in Zoom meetings.
I avoid anything that involves phones but that's about it really.
Hobbies are ok...I don't volunteer my confidence is low. I avoid parties and any gatherings.
Less likely to join in group activities as I couldn't keep up with conversations.
It has encouraged me to volunteer with a hearing loss charity.

Any other ways my life has been impacted...

It can be isolating and lonely particularly at large events or gatherings, you tend to look anti-social.

I sometimes feel very isolated because of the hearing loss, even with a BAHA which helps sometimes but, again, not in groups or noisy situations.

Worried my job will suffer.

I'm not as outspoken. Stopped listening to radio programmes.

I don't mix much, I have no friends.

Very little social life. In groups I can't hear where voices are coming from and background voices make it even worse.

I wear a hearing aid but still struggle with my hearing. Instructions on the use of the hearing were very poor. I was given a huge instruction leaflet, which covers three models and is hardly comprehensible.

I'm a much less confident person since suffering hearing loss.

My partner is also severely deaf and I have to act as interpreter on telephone etc, puts a great strain on our relationship.

I've had difficulty communicating lately with the pandemic situation, people are reluctant to lower their masks to allow me to lip read.

Not Involved with life in general. Feel like an outsider.

Normal everyday contacts all reduced considerably.

It's frustrating not hearing what people are saying, everything is just a lot of mumbo-jumbo.

Seems to impact my life constantly in everything I do, never goes away.

Frustrated at being unable to mix and hear properly.

Yes. Total frustration with hearing aid when I use it as HATE wearing it but I do sometimes.

More introverted and less likely to join new groups.

More isolated and misunderstood. Avoid situations where I know I will have difficulty hearing.

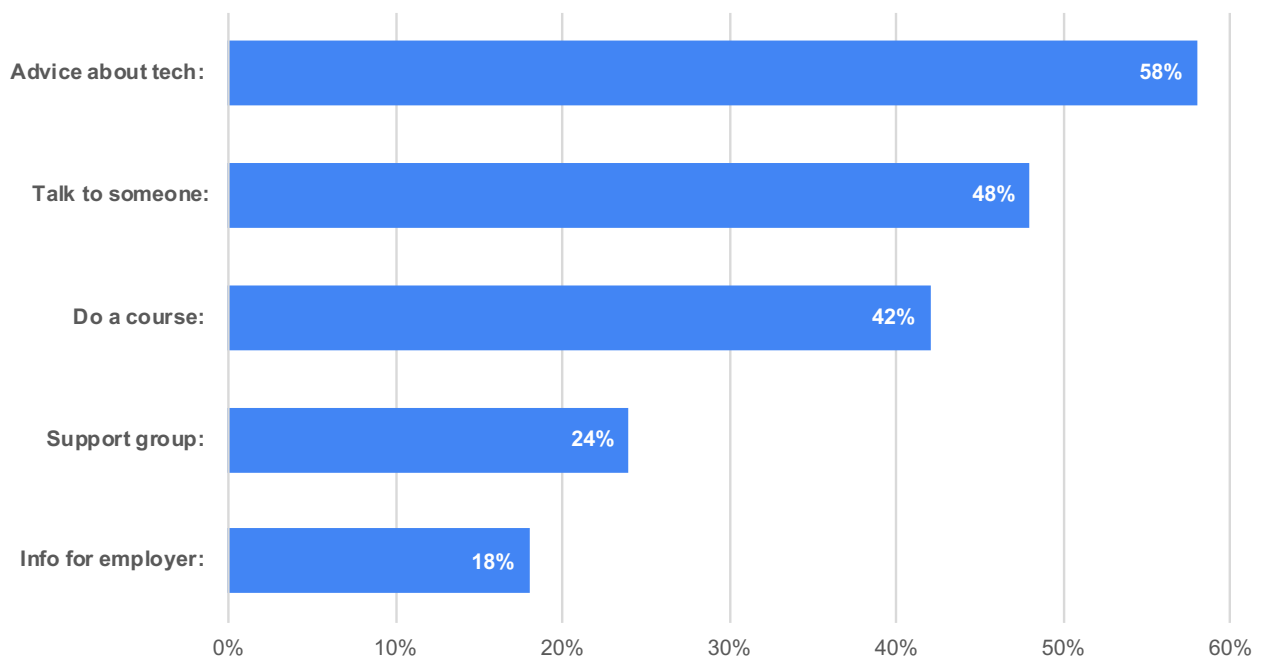
What support do people want?

We also asked the participants to tell us "what kind of help or support would you have appreciated?" There were five options and more than one option could be selected...

- To talk with someone who understands
- Being part of a regular support group
- Doing a course that informs about how to deal with hearing loss
- Advice about technology and devices that assist hearing
- Information for my employer and colleagues

The results are shown below

Relative interest in different types of support



Summary:

- There was greatest interest in advice about technology, with over half selecting this option
- Just under half would have appreciated someone to talk to
- 21 of the 50 surveyed would like to have attended a course
- Just under a quarter would have appreciated being part of a regular support group
- The smallest number, just 18%, felt like information for their employer and colleagues would have helped

Summarising the personal impacts

There is a shocking lack of sympathy shown towards people who are living with hearing loss. Our survey respondents have had significant difficulties in their day-to-day lives as a result of losing the ability to hear as well as others can. Rather than being understanding and accommodating we found that hearing loss is all too often considered something that others consider it is OK to joke about and make fun of. There is a widespread lack of sensitivity about the emotional hurt this causes.

An important economic dimension is revealed too, as without the right support in place valuable members of the regional workforce have their productivity suppressed and, in a significant number of cases, exit the workforce early. This is a great loss to us all, and places a real cost upon the social purse. This is explored in detail in part 2 of the report.

There is strong evidence from our survey that people with hearing loss are interested in accessing support of different kind, and we have been able to establish a hierarchy of relative demand. This evidence is used in the section below to inform ideas around a fresh support offer.

What might a fresh support offer involve?

Deaflink is eager to know how it can adapt to better serve the Hard of Hearing community going forward. This section builds on the evidence gathered to imagine what a fresh support offer might involve.

The items attracting the highest number of responses in the survey were 'Advice about technology' and 'Talking with someone who understands'. Deaflink already fulfils both of these needs within the 'one-to-one' aspect of the Hard of Hearing Involvement Worker's role. It ought to be noted however that the HoH Involvement Worker is a part-time post (14 hrs/week) meaning current capacity is limited. Additionally, the pandemic made group work almost impossible, requiring a pivot to more one-to-one support. However, with a high proportion of the population now vaccinated more people may be worked with in a group context, which is a more efficient way of working. This bodes well for 'Doing a course that informs about how to deal with hearing loss' particularly interesting.

Course content

Being supported by 'Doing a course' was almost as popular (42%) as 'Talking with someone who understands' (48%). Courses are not currently part of Deaflink's support offer and therefore we felt it important to give some attention to exploring what the offer of a course might involve. An initial Focus Group produced a range of interesting content possibilities:

- What to expect emotionally
- What's out there in terms of technology
- What are my rights and entitlements
- What workplace adjustments can be made

What to expect emotionally

In many cases, the need to talk with someone who understands (48% of those surveyed) could be fulfilled within the context of a course. Elements of facilitated sharing and peer support could easily be incorporated into the course delivery model. There may be risks to manage around the level of vulnerability that different course participants are comfortable with. Nobody should feel obliged to share, or to share more than they are comfortable to. Using testimonials, either live or recorded may help to 'break the ice'. Members of Deaflink's existing groups have expressed an enthusiasm to share their own stories to offer encouragement and hope to others. One member of the Focus Group commented that after her initial diagnosis "I thought my life was over, but that wasn't the case at all". By accessing support of different kinds she was actually able to continue working in the job she enjoyed until three years *after* her statutory retirement age.

Those requiring longer term support may have the option to join one of the Hearing Loss Support Groups already offered by Deaflink, upon completion of the course.

What's out there in terms of technology

The most popular item on the returned surveys was 'Advice about technology' (58%). This should therefore form one of the key elements of the course, adding to its attractiveness. This content could potentially be delivered with the support of an Audiology specialist. The varieties of Hearing Aids should be explored, introducing the wide of products that can be accessed via the NHS. These technologies can be demystified and the appropriateness of various options discussed. One

member of the Focus Group recalled how she was initially terrified at the thought of “extreme solutions” such as cochlear implants, only to later learn that much less intrusive solutions were available to her.

What are my rights and entitlements

Accessing the pathways to support emerged as a significant item. People who recognise that they are experiencing hearing loss need to know who to go to for support. Their own GP is an essential link in the chain. However, GP’s themselves can sometimes present a barrier. One member of the Focus Group described his GP telling him he needed to “learn to live with it [hearing loss] as part of the aging process”. This resulted in a substantial delay before eventually being referred to the specialist Audiology unit. It was felt to be important that the course clarified what rights and entitlements are available, so that barriers to access can be quickly overcome.

What workplace adjustments can be made

Perhaps surprisingly, ‘Information for my employer and colleagues’ scored very low at just 18% on the survey. This may suggest some hesitancy around ‘not wishing to make a fuss’ which is commonly received feedback. Ultimately, given that the desired outcome of the course is to enable people to continue to ‘live well with hearing loss’ and that this very explicitly encompasses continuing in their career, the topic of workplace adjustments does need to be covered in some detail. This could begin with advice about how to ensure employers comply with their statutory obligations under the equality act. Then, building on this, content exploring ways to encourage employers to rise to the challenge and see the benefit of ensuring the inclusion of members of staff with communication needs.

Course structure

In the next section (p.14) a chart shows that the target market for the course ought to be people from the mid 40’s to late 50’s and still in work. This is the group that statistically speaking would benefit most.

Reflecting on the amount of content that can realistically be engaged with an ‘digested’ in one go the Focus Group felt that the course would be best suited to 4 x half day sessions. The optimum group size was felt to be around 12 people. It was also suggested that the course may offer even greater value if the individual experiencing hearing loss is able to bring someone with them. This could be a husband/wife/partner, or a colleague. It was felt that helping those close to the individual to also understand the changes taking place, in order to support them through the process could be extremely beneficial.

The course ought to therefore be repeated regularly in suitable venues* around the region in order to reach the hundreds of people every year who would benefit from accessing the training. A range of partners should be sought to assist in promoting the course, harnessing the networks available within all three sectors – public, private and voluntary.

*Suitability of venues would need to take into account the importance of room acoustics. Rooms prone to echo or exposed to levels of background noise would be entirely counterproductive. Well-lit rooms with ‘softer’ acoustics are known to be better environments in which those with hearing loss can participate.

Part 2, Economic Impacts

In the previous section we saw that one of the substantial impacts for people experiencing hearing loss is that they find it difficult to adapt within the workplace. Many find that employers lack understanding of their needs and are unwilling to support the necessary adaptations. Perhaps even more concerning, many also refer to retiring early due to their hearing loss. In terms of quantifying the economic impacts of hearing loss in the region this latter issue presents an interesting case.

In the pages that follow an estimate of the aggregate regional economic impact of hearing loss is arrived at by:

- first establishing the prevalence of the condition, then
- using this to arrive at a reasonable approximation of the numbers per year who exit the workforce early, then
- multiplying this by 'GVA per worker' figures.

What is GVA?

GVA stands for Gross Value Added is a measure of the value of goods and services produced in an area, industry or sector of an economy. GVA is quoted as a financial headline e.g. £10 billion. GVA figures are used as building blocks contributing to a nation's overall GDP (Gross Domestic Product). GVA figures are published regularly by the ONS (Office for National Statistics) broken down in various ways, such as by region, or by local authority.

- GVA per capita divides the headline GVA figure (e.g. £10 billion) by the total population of the unit being counted (e.g. 1 million) to arrive at an average = £10,000 GVA per capita
- GVA per worker divides the headline GVA figure (e.g. £10 billion) by the working population of the unit being counted (e.g. 500,000) to arrive at an average = £20,000 GVA per worker

As our calculations concern the number of people retiring early from the regional workforce we will use GVA per worker figures.

The North of Tyne Combined Authority the region consists of three local authorities: Newcastle, North Tyneside and Northumberland. Within the region there are around 30,000 businesses with a combined workforce of around 415,000 people.

- In 2018 the GVA of the North of Tyne area was reported as £17 billion.
- This equates to a GVA per worker of £41,000.

We will return to these figures later, once we have established the prevalence of the condition.

What is prevalence and why does it matter?

In healthcare (epidemiology), prevalence is the proportion of a particular population found to be affected by a medical condition at a specific time.

When it comes to hearing loss, there are two sides to the prevalence story. There is *predicted* prevalence, and *recorded* prevalence...

- Predicted prevalence is the number of people who can be expected to be experiencing hearing loss within a given population based on data modelling.

- Recorded prevalence is the number of people recorded on data systems (e.g. an NHS Foundation Trust patient database) who are formally identified as experiencing hearing loss.

Important note: Neither of these approaches to measuring prevalence equate to *actual* prevalence. Reporting actual prevalence would require a constant stream of two-way communication with the entire population, supported by a single data system within which real-time data is able to be stored and retrieved.

Because most cases of hearing loss involve a gradual deterioration of hearing over time, it is useful to be able to segment by severity. The RNID breaks hearing loss into two categories. These are the same categories used by the NHS in their data reporting:

- Slight to moderately severe. Hearing loss greater from 25 – 64 dBHL.
 - Nationally, 12 million are estimated to experience hearing loss within this range.
- Severe. Hearing loss greater than 65 dBHL.
 - Nationally, 1.2 million are estimated to experience hearing loss within this range.

The two categories above have a basis in the more detailed codification developed by J.G. Clark in 1981, which has remained in use since. See table below.

Degree of hearing loss	Hearing loss range (dB HL)
Normal	-10 to 15
Slight	16 to 25
Mild	26 to 40
Moderate	41 to 55
Moderately severe	56 to 70
Severe	71 to 90
Profound	91+

Source: Clark, J. G. (1981). Uses and abuses of hearing loss classification. Asha, 23, 493–500.

Predicted Prevalence

The most up to date predicted prevalence data we found is the hearing loss Data Tool (2019) from NHS England. It shows prevalence of hearing loss within CCG and Local Government Authority populations and is used to support planning of local services.

<https://www.england.nhs.uk/publication/joint-strategic-needs-assessment-toolkit/>

Its data is summarised in the table below...

Estimated prevalence (%) of hearing loss of 25 dBHL or more in the adult population (aged 18+)					
	2015	2020	2025	2030	2035
Newcastle	17.1	17.9	18.8	19.5	20.3
North Tyneside	22.2	23.4	24.6	26.0	27.2
Northumberland	24.8	26.9	28.8	30.8	32.3
North East	21.6	23.0	24.3	25.6	26.6
England	20.7	21.9	23.1	24.4	25.4
Estimated number of adults with hearing loss of 25 dBHL or more between the ages of 18 - 70					
Newcastle	20,762	21,200	21,835	21,938	21,679
North Tyneside	18,005	18,299	18,953	19,117	18,777
Northumberland	31,126	30,645	30,866	30,231	28,585
Combined 3 L.A.s	69,894	70,143	71,653	71,286	69,041
Estimated number of adults with hearing loss of 25 dBHL or more aged 71 and over					
Newcastle	19,683	22,103	24,337	27,754	31,275
North Tyneside	18,020	20,743	23,167	26,568	30,040
Northumberland	32,437	39,183	44,756	51,484	57,568
Combined 3 L.A.s	70,141	82,029	92,259	105,806	118,883
Estimated number of adults with hearing loss of 65 dBHL or more between the ages of 18 - 70					
Newcastle	1,230	1,281	1,339	1,342	1,304
North Tyneside	1,088	1,114	1,163	1,176	1,142
Northumberland	1,841	1,831	1,869	1,840	1,726
Combined 3 L.A.s	4,160	4,226	4,371	4,357	4,172
Estimated number of adults with hearing loss of 65 dBHL or more aged 71 and over					
Newcastle	3,000	3,341	3,628	4,258	4,915
North Tyneside	2,718	3,043	3,369	4,100	4,685
Northumberland	4,734	5,622	6,555	8,109	9,206
Combined 3 L.A.s	10,452	12,006	13,552	16,467	18,807

It should be noted that this data presents the highest estimates for hearing loss. Other reports, from different studies within the NHS present slightly lower estimates. See page 14.

Whilst the data in the charts is perfectly clear what is less clear is **why** the prevalence of hearing loss is predicted to increase year on year.

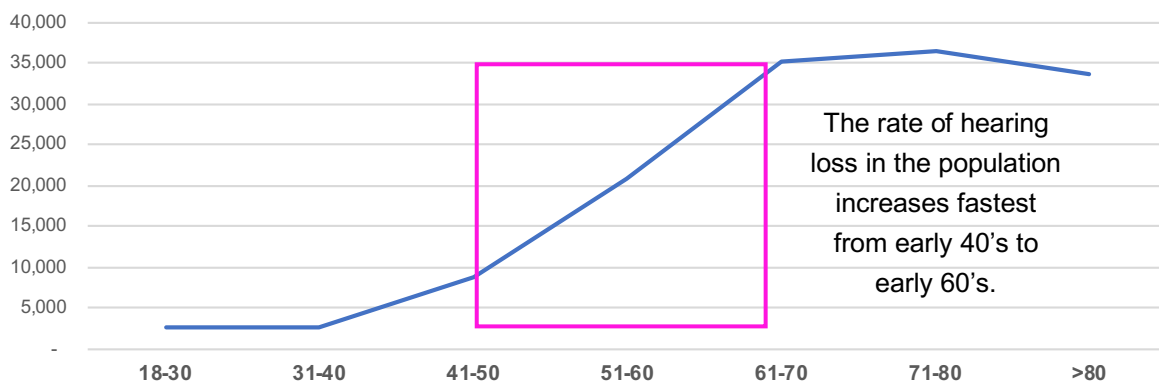
Further detail, broken down by age cohort, is presented on the next page:

Estimated number of adults with hearing loss of 25 dBHL or more aged 18 and over					
Combined 3 L.A.s	2015	2020	2025	2030	2035
18-30	2,743	2,702	2,590	2,659	2,743
31-40	2,646	2,815	2,927	2,903	2,709
41-50	8,689	7,811	7,658	8,100	8,416
51-60	20,719	21,153	19,886	17,889	17,574
61-70	35,097	35,662	38,593	39,735	37,598
71-80	36,504	43,958	49,155	50,710	55,547
>80	33,636	38,071	43,104	55,096	63,336
Total	140,034	152,173	163,912	177,092	187,924
Estimated number of adults with hearing loss of 25 dBHL or more aged 18 and over					
Newcastle	2015	2020	2025	2030	2035
18-30	1,479	1,466	1,417	1,480	1,527
31-40	1,000	1,100	1,167	1,164	1,093
41-50	2,742	2,556	2,608	2,824	2,976
51-60	6,157	6,232	5,932	5,507	5,599
61-70	9,385	9,846	10,711	10,963	10,484
71-80	9,855	11,231	12,660	13,439	14,799
>80	9,828	10,872	11,676	14,315	16,476
Total	40,446	43,303	46,171	49,692	52,954
North Tyneside					
18-30	522	522	504	512	534
31-40	736	769	790	787	736
41-50	2,400	2,220	2,199	2,306	2,379
51-60	5,394	5,650	5,447	5,018	4,983
61-70	8,954	9,137	10,013	10,495	10,145
71-80	9,190	11,073	12,540	13,012	14,427
>80	8,830	9,670	10,627	13,556	15,613
Total	36,026	39,042	42,120	45,685	48,817
Northumberland					
18-30	742	714	669	667	681
31-40	910	946	970	952	880
41-50	3,547	3,035	2,850	2,970	3,061
51-60	9,168	9,272	8,508	7,364	6,993
61-70	16,758	16,679	17,869	18,278	16,969
71-80	17,459	21,654	23,956	24,260	26,321
>80	14,978	17,529	20,800	27,224	31,247
Total	63,563	69,828	75,621	81,715	86,153

This group of around 30,000 people is of particular interest as most are still working whilst also living with the challenge of hearing loss.

This table shows that prevalence curves upwards over the age ranges. It begins rising more steeply from age 40 and then steepens markedly from age 50 upwards, further accelerating in the 60+ bracket and plateauing thereafter.

Hearing loss prevalence by age band (combined NoT)



A slightly different picture of predicated prevalence of hearing loss in the North East is presented in the 2016 report known as: “P20 - LA estimated hearing loss”. This data is described as being:

...calculated based on the most robust data on the prevalence of hearing loss among different age groups (from Adrian Davis, Hearing in Adults, 1995), updated for the most recent population statistics (ONS mid-2014 data).

www.england.nhs.uk/publication/prevalence-of-hearing-loss-by-local-authority-area-2014-ons-estimates/

Local Authority Area	Total population (according to ONS 2014 estimates)	Estimated number with hearing loss (rounded to the nearest 500)	% of total population	Comparison to hearing loss Data Tool (2015 est.)
ENGLAND	54,316,618	9,235,000	17%	20.7%
NORTH OF TYNE COMBINED	808,566	145,000	17.7%	21.4%
Newcastle upon Tyne	289,835	42,000	14%	17.1%
North Tyneside	202,744	37,500	18%	22.2%
Northumberland	315,987	65,500	21%	24.8%

*updated 2017

This essentially demonstrates that there is not agreement on predicted prevalence. There is a variance of around 4% between different reports.

Recorded Prevalence

Historically the Office for National Statistics, working with the NHS and Local Authorities kept a dataset showing the numbers of people registered as deaf and hard of hearing with Councils with Social Services Responsibilities (CSSRs) in England. It was updated every 3 years but was discontinued in 2010.

<https://digital.nhs.uk/data-and-information/publications/statistical/people-registered-as-deaf-or-hard-of-hearing/people-registered-as-deaf-or-hard-of-hearing-england-year-ending-31-march-2010>

The 2010 data presented the following:

England, at 31 March 2010		Rounded Numbers				
People registered as hard of hearing by age						
	All Ages ¹	0-17	18-64	65-74	75 or over	Total Population
ENGLAND	156,540	2,235	25,815	20,475	107,885	56,000,000
Newcastle-upon-Tyne	1,720	10	215	200	1,295	295,842
North Tyneside	800	10	105	95	590	204,473
Northumberland	425	25	100	80	225	319,030
North of Tyne Combined	2,945	45	420	375	2,110	819,345
All North East	13,810	110	2,490	2,050	9,160	2,644,727
As percentage of total population						
ENGLAND	0.28%	0.00%	0.05%	0.04%	0.19%	
Newcastle-upon-Tyne	0.58%	0.00%	0.07%	0.07%	0.44%	
North Tyneside	0.39%	0.00%	0.05%	0.05%	0.29%	
Northumberland	0.13%	0.01%	0.03%	0.03%	0.07%	
North of Tyne Combined	0.36%	0.01%	0.05%	0.05%	0.26%	
All North East	0.52%	0.00%	0.09%	0.08%	0.35%	

- Comparison with the 2007 dataset shows that over the 3 year period 2007-2010 there were 8% fewer people overall registered as Hard of Hearing.

Calculating Economic Impact

Earlier we cited that within the North of Tyne area GVA per worker is £41,000.

We have assumed the average working life of a resident in the region to be 41.5 years (from 19.5 – 61 years old) which is in line with national averages.

For simplicity we have assumed a flat age cohort across those years, which means 10,000 workers in each in of the yearly bands.

- At the older end of the age gradient, in the 50+ category, we can reasonably assume that 20% are suffering hearing loss = 2000 people.
- The RNID (2013) research revealed that 27% of those with hearing loss will retire early because of it = 540 people, per year.
- If retiring an average 1 year early = x1 year GVA lost per year = £22.14 million
- If retiring an average 3 years early = x3 years GVA lost per year = £66.42 million
- If retiring an average 5 years early = x5 years GVA lost per year = £110.7 million

For the purposes of this report we will take the middle range of retiring 3 years early as being reasonable.

Summarising hearing loss prevalence

There are variations in predicted prevalence across the three local authority areas, and across different predictive datasets. However, **if we were to approximate prevalence across the North of Tyne area the figure of 20% would be reasonable** based on all the available data.

There is an extremely large gap between predicted and recorded prevalence.

- In Newcastle predicted prevalence (2015 data) is 17.1% but recorded prevalence is 0.58%
- In North Tyneside predicted prevalence (2015 data) is 22.2% but recorded prevalence is 0.39%
- In Northumberland predicted prevalence (2015 data) is 24.8% but recorded prevalence is 0.13%

To emphasise this point imagine that:

- In Newcastle, for every 1 person recorded as hard of hearing, 30 are people are unrecognised
- In North Tyneside, for every 1 person HoH, 57 people are unrecognised
- In Northumberland, for every 1 person HoH, a staggering 190 people are unrecognised

There is therefore very strong evidence of significant under-reporting of hearing loss.

- We tested this hypothesis with a regional organisation working with older people. Their database holds records of 2962 people. Just 38 (1.28%) had hearing loss recorded*.

Clearly, more needs to be done to provide opportunity to people to identify that they are experiencing hearing loss. Services interacting with the public, especially the over 50's, should be frequently and routinely asking the question "How is your hearing", recording the response, and using the data to shape their future provision and communication.

* In the example above the database is set up to record 'primary disability'. We might therefore reflect on the extent to which information management systems require upgrading. It is important that the systems being used have the ability to account for the variety of healthcare conditions that people experience and require may require support with.

Appendices

Appendix A

NICE Clinical Knowledge Summary (last updated Sept 2019)

<https://cks.nice.org.uk/topics/hearing-loss-in-adults/>

- Over 11 million people in the UK have hearing loss — around 900,000 people have severe or profound hearing loss.
- Hearing loss is common and can occur at any age — depending on the underlying cause it can be temporary or permanent; of sudden onset or slowly progressive.
 - *Conductive hearing loss* occurs due to abnormalities of the outer or middle ear which impair sound wave conduction to the cochlea in the inner ear.
 - *Sensorineural hearing loss* occurs due to abnormalities in the cochlea, auditory nerve or other structures in the neural pathway from the inner ear to the auditory cortex.
- Hearing loss can have a marked adverse effect on relationships, social engagement, employment and educational opportunities, quality of life and mental health.
- Classification of hearing loss as mild, moderate, severe or profound is based on the quietest sound (in decibels) which can be discerned on pure tone audiometry.
- The most common causes of hearing loss are ageing and exposure to excessive noise. Other causes include a wide variety of genetic, systemic and infective conditions and exposure to ototoxins.
 - Hearing loss ranks 3rd for disease burden (years lived with disability) in England [NICE 2018]
- Prevalence increases with age:
 - In the UK, around 40% of people aged 50 years old and 71% of people aged 70 years and older have hearing loss. Up to 75% of people living in care homes are affected [NHS England, 2017; NICE, 2018; Action on hearing loss, 2018].
- Noise-induced hearing loss (NIHL) from prolonged occupational exposure is a common cause of work-related ill-health.
 - In the UK, the Labour Force Survey (2017/2018) found that 63 per 100,000 people employed in the last 12 months self-reported hearing problems caused or made worse by their occupation [Health and Safety Executive, 2018].
- Sudden sensorineural hearing loss is less common affecting between 5-30 people per 100,000 per year [Schreiber, 2010].
- Management of hearing loss in primary care involves:
 - Treatment of causes such as impacted wax, acute ear infection (otitis externa or media) and middle ear effusion due to acute upper respiratory tract infection.
 - Consideration of the need for immediate, urgent or routine referral to an ENT specialist or emergency department.
 - Arrangement of audiological assessment where referral to ENT is not indicated.

Appendix B

NHS Action Plan on hearing loss, 2015

<https://www.england.nhs.uk/wp-content/uploads/2015/03/act-plan-hearing-loss-upd.pdf>

This report presented a compelling case for action, summarised as follows:

The wellbeing case -

- Hearing is central to our health and well-being. As humans we are social beings and depend on communication to survive and thrive. Hearing loss is responsible for an enormous personal, social and economic impact throughout life.
- Loss of hearing at any age isolates individuals, cutting them off from society, life and the things they need to thrive. Hearing loss can impact on the development of language in children, reduce chances of employment, restrict aspirations and life chances. This can lead to low achievement, low self-esteem, isolation, loneliness and depression.
 - A recent review of the literature on hearing loss and mental health found that older people with hearing loss are 2.5 times more likely to develop depression than those without.
- In older age, hearing loss becomes a major challenge and people with hearing loss can find it difficult to follow speech without hearing aids and are at greater risk of social isolation and reduced mental well-being. Social isolation has an effect on health and in older people there is a strong correlation between hearing loss and cognitive decline, mental illness and dementia.
 - People with mild hearing loss have nearly twice the risk of developing dementia compared to people with normal hearing; and the risk increases threefold for people with moderate and fivefold for people with severe hearing loss.
- Hearing loss prevalence increases exponentially with age. Age-related hearing loss (or presbycusis), is the single biggest cause of hearing loss. For example, 42% of people aged over 50 years and 71% of people aged over 70 years have hearing loss. Adult onset hearing loss is among the top ten disabilities in terms of years lived with disability (YLD) for those over 60 years in England and as life expectancy increases, YLD from hearing loss will increase.

The economic case -

- Hearing loss impacts on the economy with an estimated loss to the UK economy of £25 billion a year in productivity and unemployment. Unemployment rates for people with hearing loss are much higher compared to the national average with 30% of people of working age with severe hearing loss unemployed. Those with severe hearing loss who do not use hearing aids have unemployment rates nearly double those who do.
- It is estimated that by 2032, there will be around 620,000 older people living in care homes in England and of these, almost 500,000 will have a hearing loss and will need support to maximise their independence and wellbeing (27). People with unmanaged hearing loss and either dementia or mental health problems are more likely to go straight to expensive care packages, such as a care home, than would be the case if their hearing loss were effectively managed

Accessing help –

- Most people acquiring hearing loss later in life, delay seeking help and those with a severe to profound hearing loss have lived with their symptoms for, on average, 10 years before being referred for the most appropriate treatment.
- The 'House of Care' model provides an opportunity of ensuring quality of life for people with long-term conditions, including those with hearing loss. It promotes person centred, coordinated care and enables individuals to make informed decisions which are right for them, and empower them to self-care for their long term conditions in partnership with health and care professionals.

Other References:

Hearing in Adults, (Davis et al 1995), contains the fullest report of the United Kingdom's Medical Research Council (MRC) National Study of Hearing. It was designed to determine the prevalence and distribution in Great Britain of audiometrically measured hearing loss as a function of age, gender, occupation, and noise exposure. The study's size, quality, and breadth made it unique and its data remains the primary U.K. source for the prevalence of auditory problems.