



LISTEN UP 2024

Children's hearing
services in Scotland

A report by the National
Deaf Children's Society



National
Deaf Children's
Society
SCOTLAND

Paediatric audiology services in Scotland

A report by the National Deaf Children's Society, December 2024



Introduction

This report presents the findings of a survey of NHS paediatric audiology services in Scotland, which was carried out by the National Deaf Children's Society (NDCS) in Winter 2023. This is the first time that such a data collection has been conducted by National Deaf Children's Society in Scotland, but there has been an annual survey and report published in England since 2017, which has proved helpful in identifying and tracking trends in paediatric audiology.

A key impetus for the decision to extend the *Listen Up* survey to Scotland was the publication of the report of the Independent Review of Audiology Services in Scotland (IRASS). The Review found concerns in all the areas it scrutinised, and highlighted the lack of profile, national oversight, accountability and clarity around Health Board-level clinical governance arrangements for Audiology services as key contributory factors. The report also found: "Consistency in what and how data is recorded, as well as how it is reported, have been longstanding concerns within the profession. At times, this has made it very difficult to determine what services are doing and to compare them."

As well as allowing NDCS to gather evidence to influence national policy debates in England, the *Listen Up* report has been found to be a useful resource for audiology professionals to benchmark their own services, to plan service improvement and as evidence of need for business cases. We hope that this first Scottish *Listen Up* report will also help address the gap in consistent data gathering identified by the independent review, and be useful for discussions with stakeholders engaged in the audiology improvement process sparked by the review, such as Health Board management and NHS leadership, by providing up-to-date evidence about paediatric audiology service provision.

For the 2023 survey in Scotland, questions were adapted from a longer set of questions for the ongoing English *Listen Up* survey. We are particularly grateful for the advice of the small group of Scottish Heads of Service who provided valuable feedback that helped to refine the questions for use in Scotland.

We sent the survey to all 14 Territorial Health Boards that provide paediatric audiology services in Scotland. As with previous *Listen Up* surveys in England, NDCS made a Freedom of Information request to ensure as many timely responses were as possible. In total, 13 Health Boards responded fully to the survey before the deadline and were included in our analyses. This gave a response rate of 93% of Scottish services, which is comparable to last year's England survey of 92%, and is the second highest in this year's UK-wide data collection (see Table 1).

The aim of separate surveys for each nation is to allow bespoke reporting, but also to allow some comparison within the UK, where appropriate. However, we recognise differences in results and trends should be interpreted cautiously due to the different size and structure of each healthcare system and variability in response rates and quality of responses between services. Additionally, not every service answered every question – either because a question was not relevant to their individual service, because they could not obtain the data, or for an unspecified other reason – meaning that the response rate figures, and thus subsequent findings for each question, have been interpreted with care.

Country/Jurisdiction	Total respondents	% of services responding by the deadline
Scotland	13	93%
Wales	5	71%
N. Ireland	5	100%
England	115	91%

Table 1: Number of responses from services in the four UK countries for the 2023 report

We are very grateful to all the audiology services that responded to the survey. Although the report reflects some concerning issues and variation across services, it highlights that most audiology services in Scotland are committed to sharing evidence, even when their own time and resources may be stretched.

Key findings

Overall, the responses to the survey confirm the findings of the IRASS that “there are multiple, systemic problems within audiology services in NHS Scotland”¹. Paediatric audiology services in Scotland are facing difficult challenges, some of which are unique to Scotland and some common across the UK.

The main issues highlighted were:

- The **proportion of children with permanent childhood hearing impairment (PCHI) reported to have been identified immediately following newborn hearing screening (44%) out of all newly identified children with PCHI is significantly lower in Scotland** compared with Northern Ireland (56%) and England (51%).
- **Significant variability in caseloads and size of services** is leading to regional variations in care and clinical risk for services with very small caseloads.
- Waiting times for children referred to audiology are unacceptably long. **There is a significant risk of delayed identification of deafness in children.**
- **Quality assurance is not well embedded** in most Scottish audiology services.
- **No consistent criteria for onwards referrals to other services**, including to local specialist education services.
- **Services are not fully exploring communication options to improve accessibility** for deaf children and adults, with few options to access services outside of using telephone and email.
- Services report **increased demand for complex audiological assessment** of children presenting with communication difficulties and possible neurodisability, which they are struggling to cope with.

Description of key findings from the *Listen Up* survey Scotland 2023

Diagnosis of PCHI

In Scotland, only 44% of children newly diagnosed with PCHI are reported as identified via the Newborn Hearing Screening Programme (NHSP), which is lower than comparable figures for Northern Ireland (56%) and England (51%), which have similar pathways. This may mean that in Scotland some children with PCHI at birth are not identified until referred to audiology by other routes later in life.

¹ Scottish Government. Independent Review of Audiology Services in Scotland (August 2023). gov.scot/publications/independent-review-audiology-services-scotland/documents (accessed 15 September 2024).

This confirms the need for IRASS recommendations 43 and 51 on the NHSP and recommendations 52 to 54 on the quality of auditory brainstem response (ABR) assessment of infants.

Caseload variation

Of the 13 services that responded to the survey, the populations covered were very different and subsequently the caseloads of children with PCHI they supported hugely varied (ranging from 13 to 1,200 children a year). This may suggest that the **opportunity to identify deafness early in life is being missed** for some deaf children. For the smallest services with tiny caseloads of permanent childhood deafness, there could be a risk of the service and staff not maintaining a sufficient “critical mass” of cases to maintain expertise.

There was a variation in assessment options reported for children with complex needs. The smallest services offered fewer options for assessing children with complex needs. Again, this could mean that staff are not seeing enough of these children to maintain skills and expertise.

This confirms the need for IRASS recommendation 8 on collaborative arrangements between neighbouring Health Boards to ensure sustainable service delivery for specialist audiology services.

Differences in services offered

All 13 services reported that they provide hearing aids for different types of hearing loss, e.g. temporary or permanent, sensorineural or conductive, and also for all levels of hearing loss. This suggests that there could be less “rationing” of hearing aids provision than in England, where not all services provide hearing aids for all types of hearing loss.

Services offered a range of different options for temporary conductive hearing loss and are able to refer to Ear, Nose and Throat (ENT) colleagues. However, we acknowledge that access to ENT and waiting times for grommet surgery are beyond the remit of audiology services.

This confirms the need for IRASS recommendation 2 on the need for a body with national oversight of audiology, which reports to the Scottish Government, and for recommendations 42 to 49 on quality assurance.

Accessibility

All 13 services reported using telephone communication, with 12 also using email. However, there were few other options available to families who struggle to access services via these methods. Online booking systems are not used at all.

Six services reported using British Sign Language (BSL) either directly or indirectly via their disability services. Only one service reported not providing any deaf awareness training and 5 out of 8 services have audiologists who use BSL. It is understandable that BSL interpreters are used to convey complex information in healthcare, and it is understood that this will be beyond the remit of most audiologists. However, it is good practice for audiologists to have basic BSL skills to interact with patients.

This confirms the need for the IRASS recommendation around improving customer service in recommendations 42 to 49 on quality assurance.

Waiting times

Waiting times for children referred to audiology are unacceptably long, with the waiting times for children who are referred via routes other than the NHSP being particularly concerning.

For babies and children referred via routes other than the NHSP, more than half (**58%**) of services reported **average** waiting times significantly exceeding the 42-day **maximum waiting time** standard; four services reported particularly excessive average wait times (up to 600 days) for children referred via routes other than the screen

For babies to be seen following referral from the NHSP, 50% of services had an average waiting time that equalled or exceeded the 28-day maximum waiting time standard.

This indicates a significant risk of delayed identification of deafness in children, particularly those that are not identified by the screen and/or who have later onset of deafness.

This confirms the need for IRASS recommendation 43 on referral to treatment waiting times performance reporting through Health Boards.

Quality assurance

There was large variation in the amount of quality assurance activity that each service reported. Overall, there was a tendency for internally focused quality assurance methods, and only two services in Scotland reported participating in external peer review at the time of the survey, which is recommended practice to assure the quality and safety of the diagnostic ABR test, essential for identifying deafness in babies and children.

This confirms the need for IRASS recommendations 42 to 49 on quality assurance and 52 to 54 on the quality of ABR assessment of infants.

Staffing

Three services reported vacant posts for senior paediatric audiologists – equivalent to 8.2 full-time equivalents (FTE). Half of the services responding reported a reduction in staff/skill level in the past year and cited a shortage of training routes in Scotland, and difficulties training staff in house as an issue but reported various approaches to tackling their own staffing issues.

This confirms the need for IRASS recommendations 5 to 6 on workforce planning and 27 to 35 on audiologist recruitment and training pathways to be delivered in full.

Collaborative working

All 13 services that responded were able to refer children on their caseload to specialist education services, and all services could also directly refer to speech and language therapy (SLT) and to ENT for a medical opinion. However, there was a lack of consistency in criteria for referral to these services across Scotland.

There was a great deal of variation in ability to refer to other health and social care services, with many referrals having to go through medical colleagues, rather than directly. Criteria for who was referred was highly variable between services.

Only 9 out of 13 services routinely referred or signposted families on to third sector or other organisations for specific support related to having a deaf child.

This confirms the need for IRASS recommendations 10 and 11 on patient pathways and participatory service design and training to be delivered in full.

Patient engagement

Transition to adult services is not always designed around the young person themselves and most services give information rather than fully engaging in a transition process as is best practice.

The average rate of non-attendance/children not being brought to audiology appointments in Scotland for the survey period is 18%, which is significantly higher (i.e. poorer) than any comparative figure reported elsewhere – the England *Listen Up* survey reported an average of 12% non-attendance for the same period. Few services reported having strategies in place to improve attendance rates and encourage families to bring children to their appointments. These high rates for children not being brought to appointments again place more children at risk of missed opportunities later on to identify PCHI and subsequently missed ongoing care.

This confirms the need for IRASS recommendations 10 and 11 on patient pathways and participatory service design and training to be delivered in full.

Changes in demand reported by services

Services reported an increased demand for most types of appointments, particularly for children who required more complex assessment, multiple appointments, ABR under sedation or general anaesthetic, and for listening difficulties and sound sensitivity in the presence of normal hearing thresholds. This was believed to be related to increased referral rates of children presenting with communication difficulties and possible neurodiversity.

This confirms the need for IRASS recommendation 2 on the need for a body with national oversight of audiology, which reports to the Scottish Government.

Tackling the issues reported

Services provided examples of good practice in tackling increasing demand and some of the issues that were identified. However, services report that they need increased capacity in terms of staffing and available facilities, better IT infrastructure and closer working with other professionals who refer into audiology to be able to tackle the issues reported and cope with increasing demands on the services. These are described more fully in section 10.

Section 2: Caseload

We asked children’s audiology services about their caseloads as of 30 September 2023.

Number of births covered by the service per annum

Of the 14 Territorial Health Boards, 12 provided us with information on how many babies were born in their area. This covered a large cohort (200 to 13,000), reflecting the fact that populations vary significantly in the different Health Board areas.

Year	Response rate	Range
2023	86% (12)	200 to 13,000

Table 2: Number of births per year

The total number of births reported by 12 of the 14 Territorial Health Boards in Scotland was 49,431.

Age range

Services told us about the age range their service covered. All 13 services who responded covered 0 to 18 years of age, and 11 said they also covered specific groups of young adults such as those in full-time education or with additional support needs.

Total number of children with permanent childhood hearing impairments

We asked services to indicate the total number of children with permanent childhood hearing impairments (PCHI) in their caseload. Eleven services reported a total of **3,494 children with PCHI** in their caseloads. There was substantial variation in caseload between services: the smallest service had a caseload of just 13 children with permanent deafness, whilst the largest caseload reported was 1200 children with PCHI. Potentially there is a risk that the smaller services may not be seeing the “critical mass” of cases needed to maintain staff competency in identifying and managing deafness in children.

Year	Response rate	Total	Range
2023	79% (11)	3,494	13 to 1200

Table 3: Overall number of children with PCHI in caseload

Number of children with permanent childhood hearing impairments referred from the NHSP compared to other referral routes

We asked services how many children with permanent childhood hearing impairment (PCHI) were identified via referral to their service from the NHSP, and via other referral routes, e.g. referral from GP, Health Visitor or school screening between 1 October 2022 and 30 September 2023.

The number of deaf children identified by services referred from the NHSP in that period ranged from 0 to 45.

The number of deaf children identified by services via other referral routes ranged from 0 to 75.

Year 2023	Response rate	Total	% Distribution
Total	71% (10)	277	100%
PCHI identified following newborn hearing screen pathway	79% (11)	121	44%
PCHI identified from other referral routes	64% (9)	156	56%

Table 4: Number of children with PCHI referred to services between 1 October 2022 and 30 September 2023 from the NHSP or other referral routes

Ten services reported a total of **277** newly identified children with permanent deafness during the qualifying period for this survey. Fewer new PCHI identifications (44%) were through the NHSP than other referral routes (56%) across 10 services, but there was variation between services on this pattern and not all services were able to provide a response.

Section 3: Clinical service variation

Assessment options for children with complex needs

We asked services about the assessment options for children with complex needs or those for whom it was difficult to obtain a definitive test result using standard behavioural methods. Twelve services provided a response.

Year	Specific clinics, for example, with longer clinic times or more experienced staff	Use of non-calibrated stimuli, for example, non-calibrated but band-pass filtered music	Sedated ABR	ABR under general anaesthetic	Other
2023	12	1	3	8	2

Table 5: Services provided for assessing the hearing of complex or difficult-to-test children as reported by services

All services that provided a response to this question (12 services) reported that they offered specific clinics for this group, with longer clinic times and/or more experienced staff. The second most preferred method (by eight services) was ABR under general anaesthetic. Most services did not offer other alternatives. The two services that selected 'other' did not specify what these procedures were.

In addition, we asked what specific training and protocols services have for each one of those assessment options. Responses centred around availability of trained and experienced staff and the staff skills mix used, following national published and local protocols, having timing flexibility, and working collaboratively with other departments. Specifically, responses included:

- **Protocols for specific clinics** – services reported:
 - using more experienced senior staff with higher level paediatric training, e.g. a team leader with the British Academy of Audiology (BAA) Higher Training Scheme (HTS) equivalency qualification in 6+ assessments and completion of audiology degree modules
 - use of additional staff, e.g. using support staff for distraction testing
 - attendance at training events to update knowledge
 - peer review of competencies
 - following national guidance where available, e.g. BAA/British Society of Audiology (BSA)
 - local Standard operating procedures (SOP) and guidelines
 - offering clinic times with flexibility when required, e.g. *“standard VRA [visual reinforcement audiometry] clinics are 45 min and if we feel we would need extra time clinics are adjusted... can also book them into a joint ENT/VRA clinic and they will see the consultant at the same time”*.
- **Use of non-calibrated stimuli:** Only one service reported using these but there was some confusion that this meant performing a Distraction Test, which is not recommended as a stand-alone test of hearing. The one service that did not respond to any of the other options explained that they were working towards using non-calibrated stimuli for testing this group of children.
- **Sedated ABR:** Three services offered ABRs under sedation using their own local SOP; two services reported that they are using a melatonin as a sedative.
- **ABR under anaesthetic:** Most services reported offering ABR under general anaesthetic (GA) in coordination with ENT colleagues.

Services for temporary conductive hearing loss

We asked services about the options in their current management pathway for temporary conductive hearing loss (multiple options could be selected). All 13 services that participated in the survey provided a response.

Year	Air conduction hearing aids	Bone conduction hearing aids	Grommets	Otovent	Watch and wait	Other
2023	13	11	13	13	10	3

Table 6: Support available to children with temporary conductive hearing loss

All 13 services reported that they offer air conduction hearing aids, “Watch and wait” and referral to ENT for consideration for grommets. Three services selected the “Other” option and specified they provide: advice to nursery/school via Sensory Support Service and bone conduction headphones/headband with microphone².

Regarding alternatives offered to children on waiting lists for grommets, all 13 services reported that they offer hearing aids and three services refer to education/sensory support services for support whilst waiting for grommets, which is good practice.

Provision of hearing aids

We asked services whether they provide hearing aids for the following groups of children and to tell us their reasons if they do not.

Year	Temporary conductive hearing loss	Unilateral hearing loss	Mild hearing loss	Moderate hearing loss	Auditory neuropathy spectrum disorder (ANSD)	Other
2023	13	13	13	13	11	1

Table 7: Groups provided with hearing technology

All 13 services provide hearing aids for temporary conductive, unilateral, mild and moderate hearing loss; and 11 for ANSD. One service selected “Other” and specified that they provide hearing aids for permanent conductive loss. In relation to ANSD, one service considered hearing aids as not applicable, and one did not provide a response at all.

Section 4: Accessibility

Communication options

We asked services about the communication options they offered.

Year 2023	Email	Text message	Web form	Online diary/booking system	Telephone	BSL	Other
N services	12	4	1	0	13	4	4

Table 8: Number of communication options offered by services

All 13 services who responded use telephone communication, and 12 also use email. The rest of the communication methods are rarely used, or not at all, as is the case of an online booking system. Four services selected the BSL options and two more explained in the “Other” option that they offer BSL

² The services that specified use of bone conduction had also picked the option when offered (so the number of services remains 11).

indirectly through texting the disability services, who then email audiology (to respond within one working day) or through Contact Scotland or with the support of NESS.

Service response time for each communication option

We asked services about the response times (in days) for each of the communication options, both target and actual, and whether there is anything preventing them from reaching their target. Numbers in brackets denote the number of services that provided this information.

Year 2023	Email	Text message	Web form	Online diary/booking system	Telephone	BSL	Other
Target: mean response time	2 (11)	1 (4)	1 (1)	N/A	1 (11)	1 (1)	N/A
Actual: mean response time	2 (10)	2 (4)	1 (1)	N/A	1 (10)	1 (1)	N/A

Table 9: Response times for each communication option

Response target for email ranged from one to seven days (two days on average); all other options had one day on average as target across the services that had selected that option.

Average targets were met for all but text message, which took two days instead of one; there was some variation between services on the same targets and the extent to which they reached them. Reasons given by two services that did not reach the target response times for emails were staff absences and not working out of hours.

Deaf awareness training

The survey asked what deaf awareness training staff have and 13 services provided responses.

Year 2023	One-off formal training	Regular updates
Deaf awareness training for Audiologists	5 (38%)	7 (53%)
Deaf awareness training for Reception/administrative staff	5 (38%)	7 (53%)

Table 10: Deaf awareness training

Twelve services reported that clinical staff and admin received training related to deaf awareness, but one stated that they didn't provide any. Five services offered one-off training for both types of staff in the year of the survey and seven reported that they offered regular updates, such as discussion of issues at staff meetings.

BSL use for patient interaction

It is essential that expert interpreters are used when BSL is required to explain complex information in healthcare, and it is understood that this will be beyond the remit of most audiologists. However, it is good practice for audiologists to have basic BSL skills to interact with patients if possible. The survey asked whether any of the staff in services use BSL. Numbers in brackets denote the number of services that provided this information.

Year 2023	Services where staff use BSL
Audiologists	5 (8)
Reception/administrative staff	1 (8)

Table 11: BSL use by staff

Only eight services provided a response, of which five said they had audiologists who use BSL and one who had administrative staff that did so. Comments were invited: three services said that some audiology staff had BSL skills; two services used BSL interpreters when this was required; and one said that the speech and language therapist and educational audiologist/teachers of the deaf (ToDs) who work closely with Audiology used BSL.

Section 5: Waiting times

Referral to first diagnostic assessment from the NHSP

The Pregnancy and Newborn Screening: Newborn Hearing Standards (2019) require Health Boards to ensure that no babies wait more than four weeks (28 days) from being referred from the NHSP to attendance at an audiological assessment appointment³. This is a target that should be met for each individual child, and this should be monitored by health boards themselves.

For this survey, we asked services to report their **average** waiting times (in days) from referral via the NHSP to the first audiology diagnostic assessment in the period 1 October 2022 to 30 September 2023. There are some important caveats to highlight that affect the quality of the data:

- An average waiting time may not accurately reflect variability in waiting times within a service, i.e. that it is possible some babies in a service may be waiting much longer and some less than the average figure reported.
- The standard is for maximum waits not average waits, so a service with an average wait of 28 days may not have met the standard for every child within that service.
- We specified that we would accept estimates if services were unable to provide exact numbers, as services told us they did not collect these figures routinely, which may also affect data quality.

However, the responses do give us useful information about waiting times in Scotland, whether these are average or reflect the situation for the majority of their caseload.

Year	Response rate	Maximum average waiting time (days)	Minimum average waiting time (days)
2023	71% (10)	56	11

Table 12: Referral to first assessment in days

Ten services responded to the question about their referral times to first assessment from the NHSP. Average waiting times ranged from 11 to 56 days; five services reported average waits higher than or at

³ NHS Scotland. Pregnancy and Newborn Screening: Newborn Hearing Standards. <https://www.healthcareimprovementscotland.scot/wp-content/uploads/2024/02/PNBS-Newborn-Hearing-finalstandards-Jan19.pdf> (accessed 15 September 2024).

the target of a maximum wait of 28 days, and three services had an average that significantly exceeded the target for maximum waiting time (see also Figure 1).

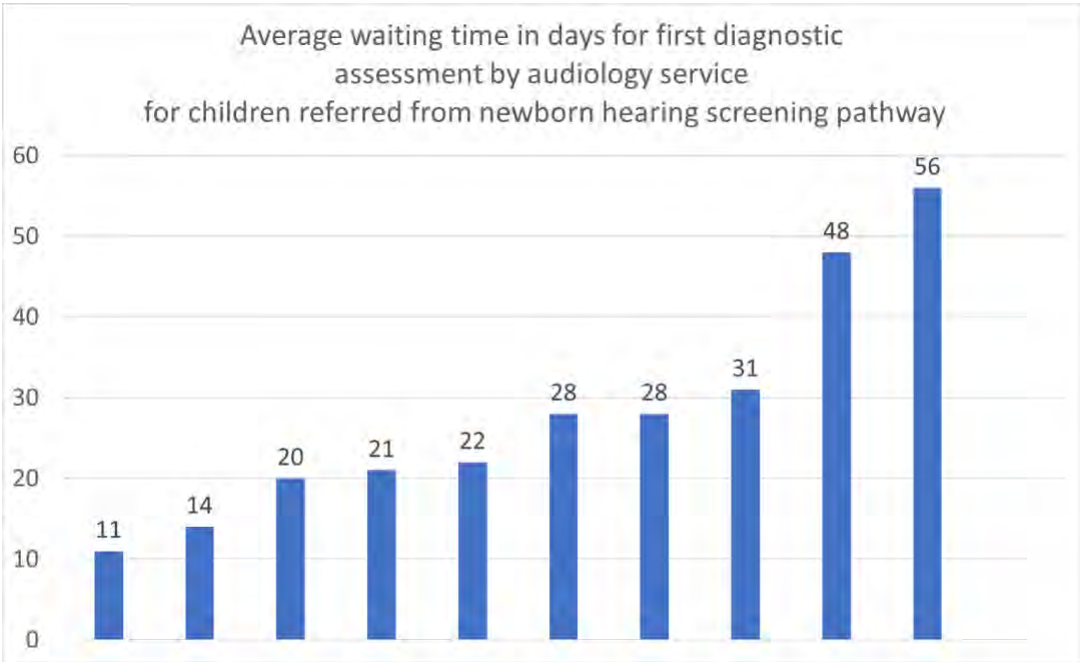


Figure 1. Distribution of services from lower to higher **average** waiting times for referrals from the NHSP to attendance at an audiological assessment appointment (target waiting time is within 28 days)

Referral to first diagnostic assessment (for referrals outside the NHSP)

We asked services a similar question about average waiting times for a first diagnostic assessment for children referred via other, non-screening pathways, e.g. when there are concerns about hearing and language development after the age of 12 weeks. The Quality Standards for Paediatric Audiology Services in Scotland (2009) require Health Boards to ensure that routine referrals are seen within six weeks (42 days) of receipt of referral⁴.

12 services responded to the question and the average waiting times ranged from 16 to 602 days; **seven services had an average waiting time that exceeded the 42 day target for maximum waiting time** (see Table 13 and Figure 2). Four services reported particularly excessive average wait times of up to 602 days .

Year	Response rate	Maximum average waiting time (days)	Minimum average waiting time (days)
2023	86% (12)	602	16

Table 13: Referral to first assessment for babies and children not referred from the NHSP

⁴ NHS Scotland. Quality Standards for Paediatric Audiology Services (2009). gov.scot/publications/quality-standards-paediatric-audiology-services/pages/1/ (accessed 15 September 2024).

Average waiting time in days for first diagnostic assessment by audiology service for children not referred from screening

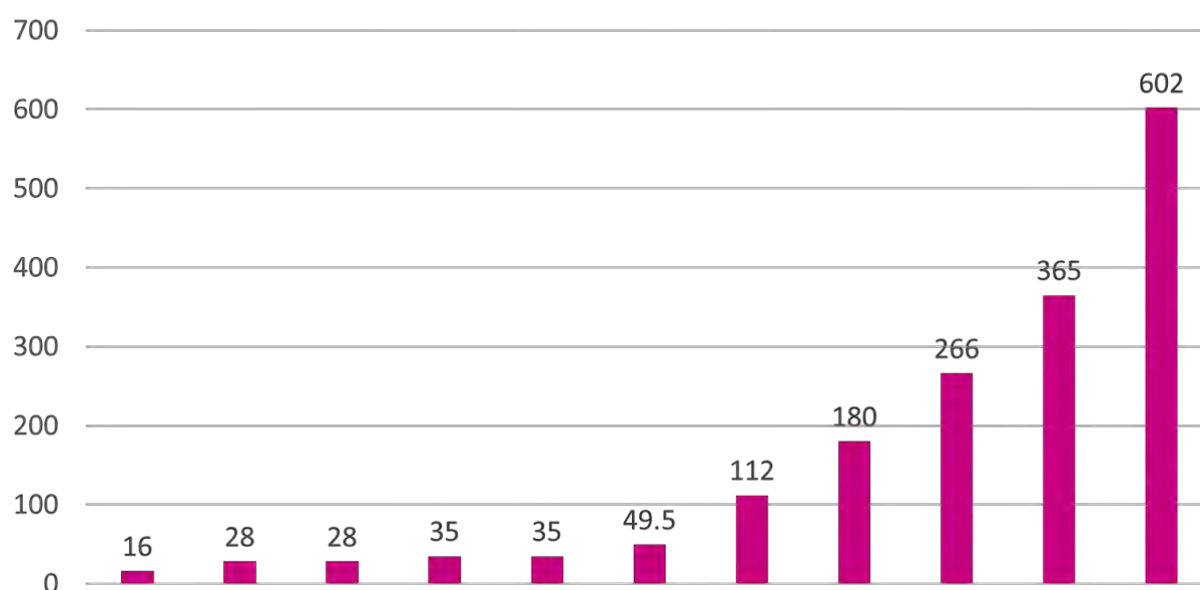


Figure 2. Distribution of services from lower to higher **average** waiting times for referrals outside the NHSP to attendance at an audiological assessment appointment (target waiting time = within 42 days)

We acknowledge that an average waiting time reflects that some children in that service will be waiting much longer and some less than the average figure reported. However, these average waiting times reveal that children referred for hearing assessment in Scotland are having to wait an unacceptable amount of time to be seen for their first hearing assessment.

Section 6: Quality assurance and improvement

The survey asked what methods services use for quality assurance and improvement. National Paediatric Audiology Standards exist in Scotland⁵.

Quality assurance (QA) and improvement methods

There was large variation in the levels of quality assurance that each service reported, ranging from 10 different QA methods in one service to none in another service (see Figure 3; services are anonymised). Services used an average of four different methods each. However, there was a tendency for services to use internally focused quality assurance methods, and this survey did not ask for evidence of the QA that had been undertaken.

The most popular QA method reported by 8 of 13 services was internal peer review (ABR); followed by the use of case studies/journal clubs to reflect and discuss good practice (reported by seven services, see Figure 4). Only two services reported participation in external regional peer review for ABR and one service selected external peer review (other than ABR). No service used Improving Quality in Physiological Services (IQIPS) accreditation at this point, though we understand that at least one Scottish service has started to take this forward. Four services selected the “Other” option but did not specify.

⁵ NHS Scotland. Quality Standards for Paediatric Audiology Services (2009). gov.scot/publications/quality-standards-paediatric-audiology-services/pages/1/ (accessed 15 September 2024).

The two services that did report active participation in external regional ABR peer review to assure safe clinical practice said that they regularly submit traces of all hearing losses and a sample of discharge cases. These two services have nine ABR testers between them (six in one and three in the other), and all these audiologists were reported as participating in peer review. These two services were asked about their ways of acting on ABR external review findings. The responses were as follows:

- **Service-related action:**
 - discussed at service meetings and audiologists' meetings
 - lessons-learned process in place
 - any variation from guidance is reported to regional co-ordinator for the NHSP and the audiologist concerned
- **Patient-related action:** if clinically indicated, the patient is booked back in for further testing or management plan is amended and parents are advised.
- **Professional action:** clinician to reflect on practice.

The remaining services were asked for reasons for not participating in external ABR reviews: two said that there are plans to start doing so and one said that they have two testers who will continue to do internal peer review, which is not accepted best practice (three services explained that they do not perform ABR testing).

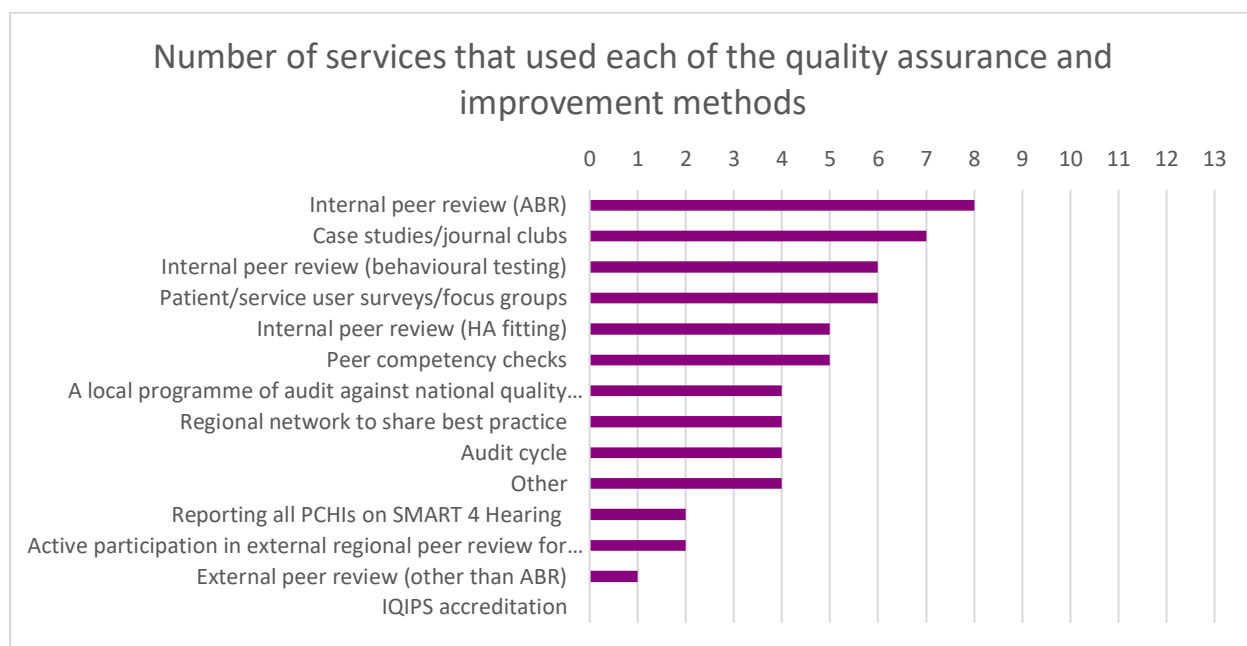


Figure 3. Quality assurance and improvement methods used by services

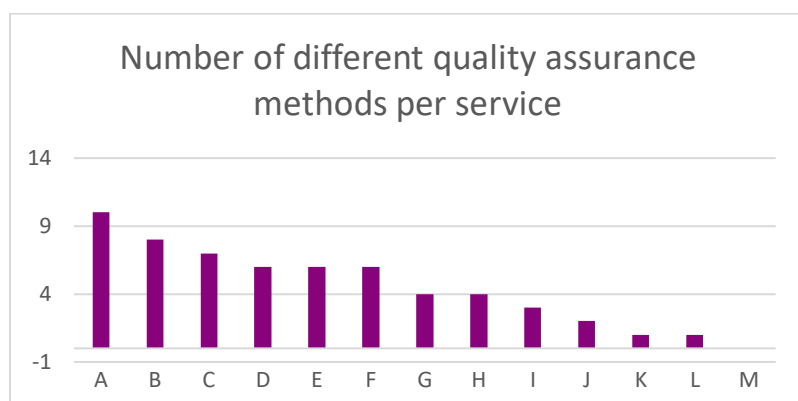


Figure 4. Number of different quality assurance methods used by each service

Section 7: Staffing

We asked about staff working in paediatric audiology services as of 30 September 2023. Services were asked to report on clinical staffing levels (including the Agenda for Change (AfC) grades of staff), staff vacancies, any observed reduction in skill, reasons for that and steps taken to address such challenges. We asked for staffing numbers expressed as a fraction of a full working week. So, one full-time role and a part-time role of three days in a five-day week would be 1.6 FTE.

Number of permanent staff

The total number of FTE posts reported by services was 58.8. There was significant variation between services, ranging from 1.2 to 32.9.

Number of FTE clinical staff at all AfC levels

All 13 services responded to the question asking about how many FTE clinical staff the children's audiology service has for each level. The following chart shows the total number of substantive posts (FTE) by AfC band with the number of services responding for each band in brackets.

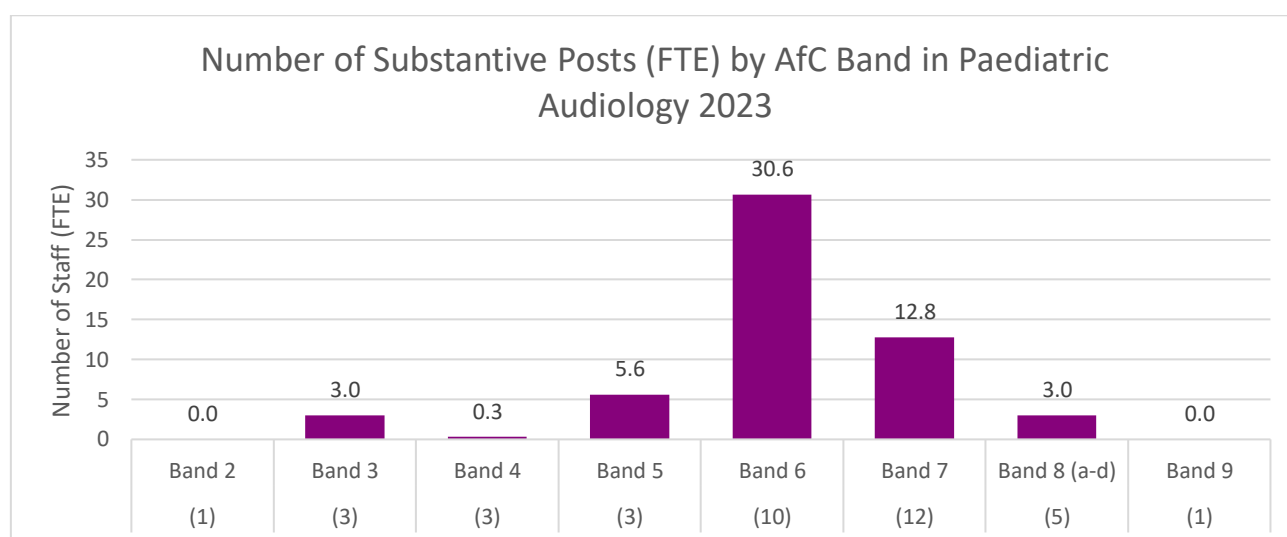


Figure 5. Number (FTE) of clinical staff working in paediatric audiology, by AfC band

The majority of substantive posts in paediatric audiology services were employed as Band 6 AfC, followed by Band 7 AfC. This is broadly in line with services in other parts of the UK, though with a greater proportion of Band 6 than seen in other nations.

Vacant posts

Year	Number of staff across services	Number of services
2023	8.2	3

Table 14: Number of vacant posts

Only three services reported vacant posts for Band 6 (5.2 FTE) and Band 7 (two FTE), and one reported one FTE for Band 8a.

Reduction in the number or skill level of staff compared to last year

Despite only three services reporting vacant posts, six services reported reduction in staff/skill level in the past year. The following table shows the reported reason by number of services giving that reason (services may give more than one reason).

Reported Reason	Number of Services
Unable to recruit staff	5
Posts have been frozen or deleted	1
Staff leaving or reducing hours	4
Maternity leave or sick leave	4
Board decision or cost improvement plan	0
No capacity to train new staff	2
Other	0

Table 15: Reasons for the reduction in the number or skill level of staff compared to last year

The main comments by six services regarding reasons for the workforce situation were that there is national shortage of audiologists in general and very few opportunities for people to train as audiologists in Scotland; providing training in house was also reported as a challenge due to the time it takes out of operational staff's substantive post to supervise and support.

Solutions deployed were reported by eight services and included:

- Offering degree apprenticeships
- Using locums (of which there is also shortage)
- Putting (unsuccessful) business cases through their boards
- Upskilling existing staff
- Moving audiologists from adult to paediatrics and using students for adult audiology
- Use of bank staff (including retired staff now on bank)

One service said that they had not come up with any successful solution.

Section 8: Collaborative working

Referrals to local specialist education services

We asked services about which children they referred to the local specialist education services that support deaf children (services could select multiple options). We asked about whether they referred children with different levels and types of deafness, and whether they referred children without hearing aids as well as those fitted with hearing aids (aided).

Figure 6 presents which children are referred to specialist education services (for different types and levels of hearing loss, and for both aided and non-aided children in these categories):

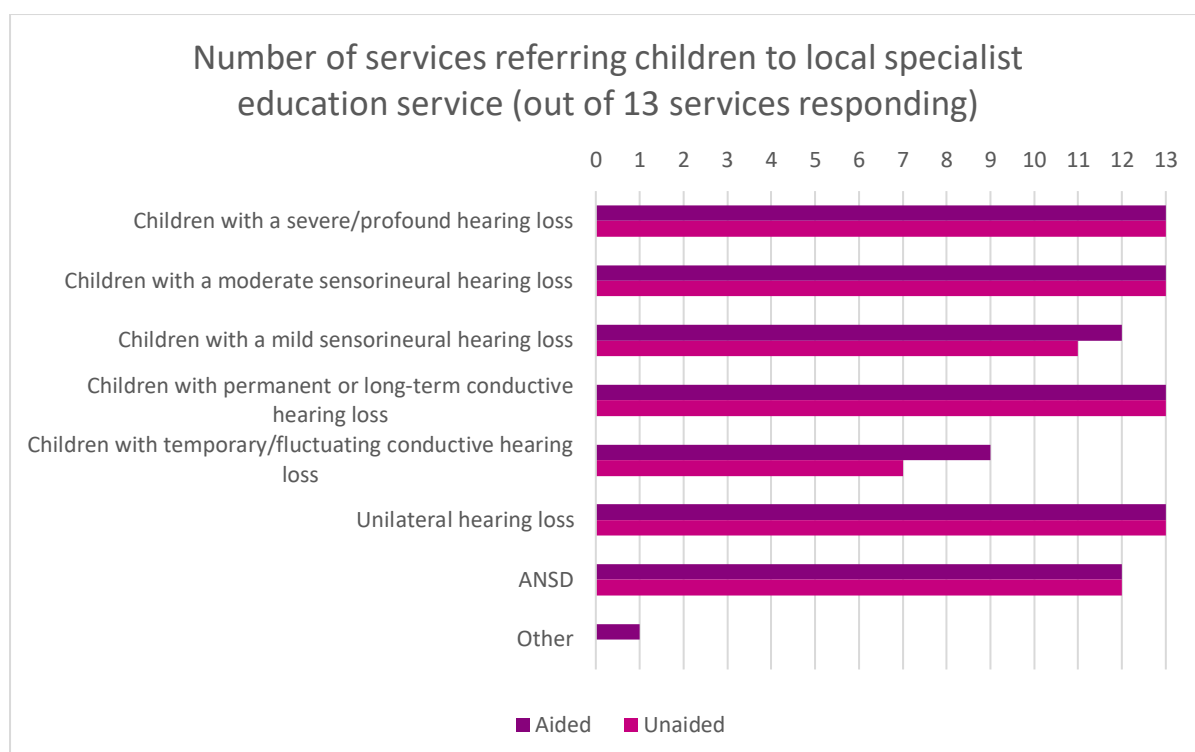


Figure 6. Aided and non-aided groups of children that hearing services refer to specialist education services

All 13 services reported that they routinely refer children with moderate, severe and profound sensorineural deafness to specialist education whether they are fitted with hearing aids or not. Of the 13, 11 were also able to refer children with mild sensorineural hearing loss; however, one of the remaining two services could only refer children with mild hearing loss if they were aided, and the other not at all.

Most services (12/13) referred children with ANSD, whether aided or non-aided.

For children with conductive hearing loss, all services were able to refer these children for educational support if the conductive element was permanent or long-term, but there was variation in referral for children with temporary and fluctuating conductive hearing loss, such as with glue ear.

We do recognise that education referral criteria are usually outside the remit of audiology services. The service that selected the “Other” option specified that they conduct regular multidisciplinary meetings with education services and referrals can be on case-by-case basis.

Referrals to non-audiology or external professionals

We asked if the audiology services were able to routinely refer directly to other appropriate health and social services, e.g. SLT, ENT, early family support/social services, child protection, clinical psychology/Child and Adolescent Mental Health Services (CAMHS), paediatrician/developmental assessment service. We also asked if they routinely signposted families to appropriate third sector/community organisations, such as the National Deaf Children’s Society (NDCS).

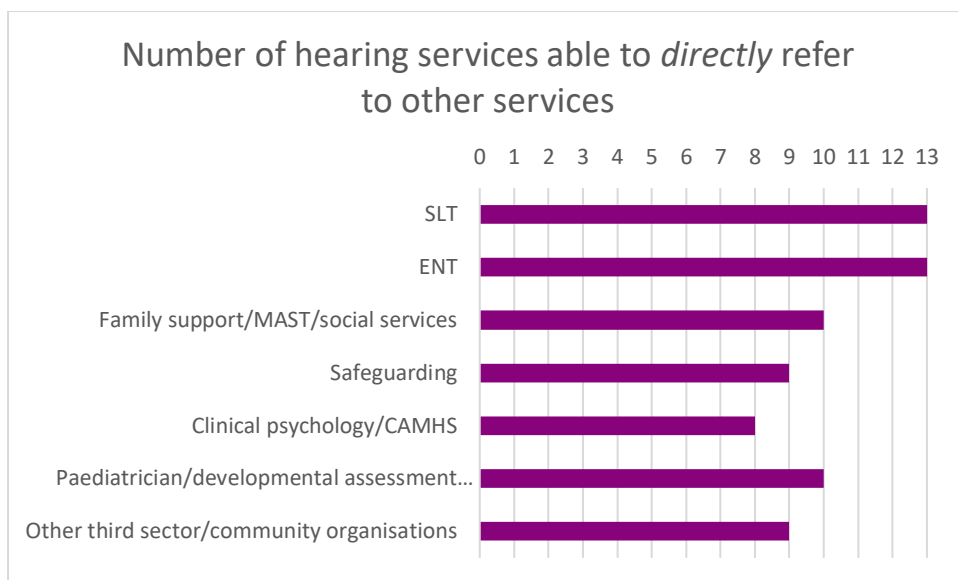


Figure 7. Referrals to non-audiology/external professionals

All 13 services could directly refer to ENT and SLT for a medical opinion. However, there was a lack of consistency in the **criteria** for referral across services:

- **Criteria for SLT referrals:**
 - 12 services gave a variety of responses: “... we refer all children with hearing loss”, “... only the ones with speech delay”, “all aided hearing loss”, “only PCHI”, “not routine referral as usually paediatricians do that” and “SLT will only accept a referral for children with a bilateral sensorineural hearing loss”
- **ENT referrals:**
 - 12 services gave a variety of response: most said they would refer for surgical or medical input (e.g. infection, snoring, mouth breathing, dizziness, tinnitus, balance, diagnostic imaging); some said all with conductive or sensorineural hearing loss; and some said that it depends on individual assessment.

There was more variation in onwards referral of children to other non-audiology services, with no consistency in criteria for referral. It was clear that audiologists themselves could often not directly refer to external services, but had to refer via medical colleagues, which could potentially add delays in the pathways for these children.

- **Family support/Multi Agency Support Team (MAST)/social services:**
 - 10 of 13 services could refer directly for social care support; nine of these gave further information on which children they referred, revealing variation in criteria, e.g. “... based on individual assessment”, “those requiring environmental aids or home support”, and “all children with PCHI”
- **Safeguarding referrals:**
 - Nine services said they referred to safeguarding teams and eight of these described their criteria: all said they would refer when concerns arise according to local protocols; one response described in more detail that there will be a “team around the child” meeting to discuss red flags and if “life is at danger, there is a local emergency pathway”; and some would “discuss concerns with the health visiting services or the school”.
- **Clinical psychology/CAMHS referral:**
 - Only eight services said they referred for psychological support; some specified that this can happen via ENT or a consultant; issues usually referred for include sound sensitivity, hyperacusis, misophonia and tinnitus, difficulty accepting hearing loss, bullying, parental

concern and anxiety; collaborative working with CAMHS and community paediatrician was also mentioned

- **Paediatrician/developmental assessment referrals:**

- 10 services reported that they referred children for paediatrician assessment. Again, referrals could sometimes only be made via medical colleagues such as ENT, and who was referred varied from “all with sensorineural hearing loss” and “all PCHI for aetiological investigations” to being “based on individual assessment”, “only for non-otological symptoms”, and “for developmental concerns”.

- **Third sector/community organisations referrals:**

- Only 9 of 13 services referred or signposted on to these organisations for support; seven services gave more detail of who they signposted to, which included NDCS, local deaf children societies, Deaf Action, [North East Sensory Service \(NESS\)](#) and [P&K VisionPK](#).

Audiology services were also asked to comment on other services to which they should refer children with hearing loss or may struggle to refer to:

- SLT was mentioned as difficult to access (long waiting times, lengthy assessment with no guarantee they will accept the referral, challenges accepting unilateral, permanent conductive hearing losses and ANSD).
- CAMHS and psychology were also mentioned as challenging for referrals.
- Other referrals mentioned were deaf youth clubs and patient groups organised by a community sensory centre.

Signposting to the NDCS

We asked services about the categories of children with hearing loss and their families that they routinely signpost to the NDCS. We further asked them to specify whether they signpost or provide with information.

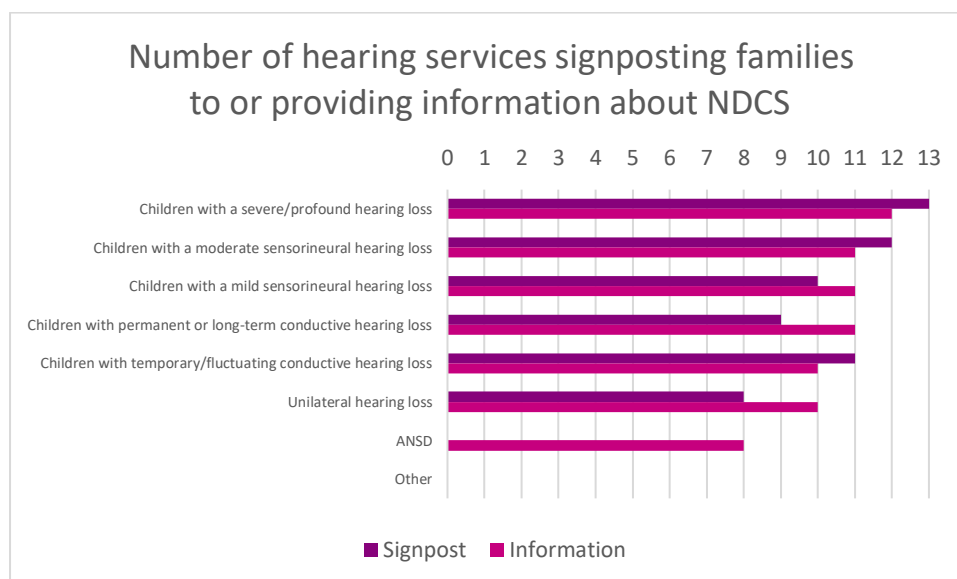


Figure 8. Signposting to the NDCS

All 13 services said they routinely signposted families of children with severe/profound hearing loss to NDCS and 12 did so for children with moderate sensorineural hearing loss. Not all services signposted families of children with mild sensorineural hearing loss, conductive hearing loss (permanent or temporary) or unilateral hearing loss. No services signposted families of children with ANSD to NDCS.

For the conditions where services weren’t actively signposting to NDCS, audiologists were usually providing some information, e.g. 10 services provided NDCS’s information in relation to unilateral hearing loss.

Although no service reported that they specifically signpost families to NDCS in relation to ANSD, eight provided NDCS's information about ANSD.

When asked about the timing of signposting families to the NDCS, 11 services reported that they signpost to NDCS at diagnosis and whenever a family has an issue that NDCS may be able to support; only three did so at every appointment.

Section 9: Patient engagement

These questions were related to how services strived to engage positively with children and young people and their families.

Transition to adult services

Services were asked about how they prepare young people for transition to adult services. They were offered nine options including "Other" and could select all that apply. Figure 9 displays the number of services that reported they used each option, and highlights how variable the transition process is between services.

Nine services reported that they provide information on the adult service for young people; six offer an appointment with the adult service before being discharged from the children's service; five services start talking about the transition process from the age of 14, which is best practice.

Very few offer the following best-practice options for a complete patient-centred transition process: joint appointments with both paediatric and adult audiologist present; offering the opportunity to come into the clinic without parent/carer if appropriate; and holding transition events or specific clinics for young people.

The option "Other" was selected by four services: two reported that there is no real transition, as the same audiologist offers an all-age service; one service explained that they did not select any options because they introduce the children to the adult services as/when felt appropriate and advice/information is provided; one service that also selected the information provision option, explained in their "Other" choice that they see young people in a multidisciplinary clinic.

Overall, the dominant practice across services seems to be more of information offering, while more engaged approaches, such as joint appointments and young people having the opportunity to come into the clinic without a parent/carer if appropriate, are offered by only a handful of services.

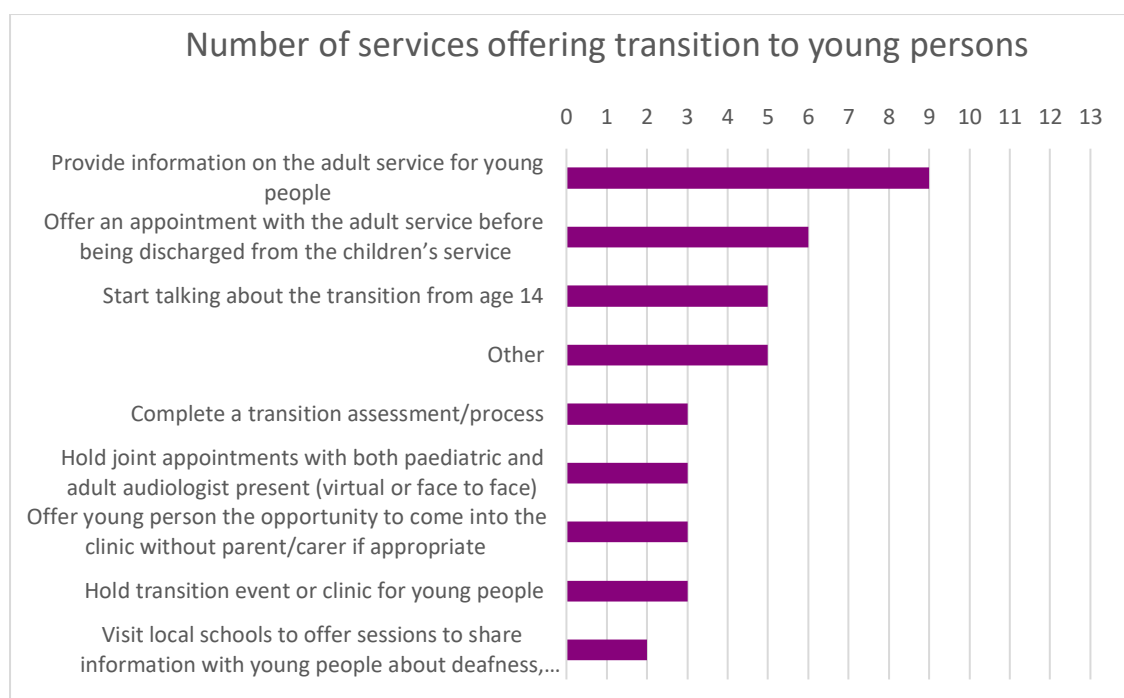


Figure 9. How paediatric hearing services prepare young people for transition to adult services

Missed appointments

We asked services how many appointments they offered in the period 1 October 2022 to 30 September 2023 and the proportion of them that were classed as “Was Not Brought” (WNB) or “Did Not Attend” (DNA). Only nine services were able to report their activity figures, reporting a total of 22,381 appointments offered to children in the year covered in this survey.

Year 2023	Total number
Number of all appointment types for children	22,381 ⁶
Number of appointments classed as WNB or DNA	2,924 ⁷
Percentage WNB/DNA ⁸	13%

Table 16: Total number of appointments and appointments classed as WNB or DNA

The rate of WNB/DNA reported across services was 13%. For reference, Scotland CAMHS data for 2023⁹ showed a comparable rate of 12% and similar rates were reported by other nations. These high rates for non-attendance put even more pressure on services trying to tackle backlogs in challenging circumstances and indicate a need for services to find ways of engaging services users and improving attendance rates.

Strategies for missed appointments

⁶ Across eight services with data.

⁷ Based on eight services with data on both the total number of appointments and percentage WNB/DNA; the number of missed appointments was not asked directly in this survey, and the figures reported here are calculated.

⁸ As reported by nine services with percentage WNB/DNA data.

⁹ [Public Health Scotland. Did not attends. opendata.nhs.scot/dataset/child-and-adolescent-mental-health-waiting-times/resource/f85546db-2375-4c5b-8faf-4d76526ce655](https://publichealth.scot.nhs.uk/dataset/child-and-adolescent-mental-health-waiting-times/resource/f85546db-2375-4c5b-8faf-4d76526ce655) (accessed 15 September 2024)

We asked services what strategies they used to prevent missed appointments. Not all services answered this questions, and few appeared to be actively engaging with families to improve the numbers of children being brought to audiology appointments, despite this high rate of non-attendance putting even more pressure on audiology departments with long waiting lists to keep up with required activity.

Strategy	No of services
Partial booking	4
Text reminders	2
Phone reminders	5
Other	4

Table 17: Strategies for missed appointments

The four services that selected “Other” shared the following actions, mostly involving other professionals in education, health and social services, or other family members: appointment letters and copies of appointment letters to other family members/professionals where there is a known attendance issue; work with health visitor and education for frequent non-attendees; audiology staff contacting patients/carers directly when concerned; notify referrers and Social Work department to encourage attendance; and one service said they are investigating the possibility of patient focus booking and text reminders, but there are cost implications.

Section 10: Issues affecting service provision

Changes in demand

We asked services whether there were any areas where demand has changed significantly in the last year. There was a list of seven areas to consider and an “Other” option was also provided. All were multiple-choice responses.

Of those services who answered, most did not report a change in routine school and pre-school assessments required, or an increased demand for appointments from self-referrals and referrals from the school screen. However, services did report increased demand for children requiring more complex assessment or multiple appointments, and for ABR under sedation or GA.

Services also reported an increase in those reporting listening difficulties (when hearing thresholds were normal), and two services offered additional information: that they have seen an increase in sound sensitivity, hyperacusis, misophonia and tinnitus, with referrals from SLT having increased; one service said they need additional staff and a clear training route; and one service also explained that they do not have a school screen in their area.

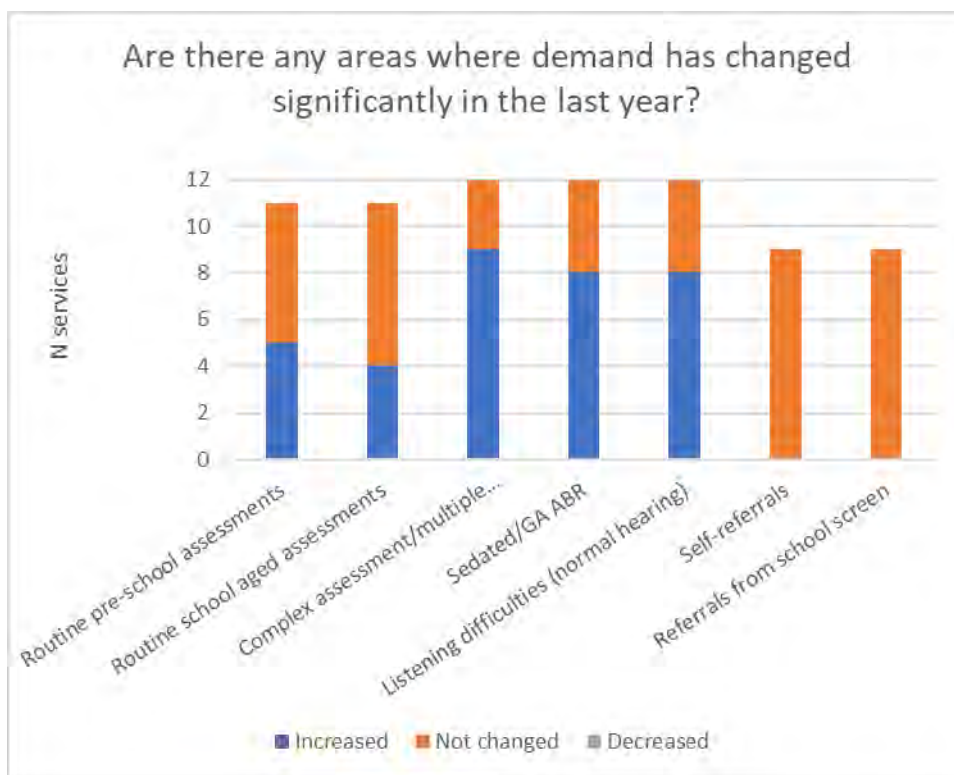


Figure 10. Service areas that have seen changes in demand

Services were also asked about likely reasons for changes in demand. Services consistently suggested the same likely reasons for increased demands across all assessment clinics (whether routine behavioural tests, complex behavioural techniques, ABR under sedation or GA, or assessment of listening difficulties in the presence of normal hearing thresholds).

Themes identified were a perceived increase in referrals for assessment of hearing in children presenting with communication difficulty, and/or suspected neurodisability – both of which require hearing loss to be ruled out as a factor contributing to their difficulties. One service hypothesised that there had been an increase in communication difficulties and sound sensitivities due to a rise in rates of autism during the Covid pandemic. Others felt that health professionals are more aware of hearing loss and particularly of the need to check hearing first before assuming social-communication difficulties.

Coping with changes in demand

Services were asked what support would help them cope with changes in demand.

- Common responses included:
 - increased audiology capacity (more facilities, more staff)
 - clearer and more available training pathways
 - improved working with other professionals, to increase the knowledge of referrers and increase their capacity
 - better IT, e.g. online referral systems
- For school-age assessment, one service mentioned reintroduction of school screening in quiet rooms with glue ear pathways.
- For complex assessments, one service introduced prepping parents for the appointment and a “Who am I?” questionnaire to allow families to share their child’s likes and dislikes.
- For ABR under sedation or GA, one service introduced more time to see these patients and dedicated theatre time for ABRs under GA; one service introduced the use of melatonin to reduce theatre need.

- For listening difficulties, one services engaged in training teachers and support staff.

Areas of good practice or innovation

Services were asked about any good practice or an innovative solution that they would like to share with others.

Four services shared good practice examples:

- ensuring protected continual professional development (CPD) time, training and development, regular paediatric team meetings, case discussions, open communication, peer review and competencies
- multi-agency clinic for cleft patients (SLT, dentist, psychologist and audiology), joint clinic with ENT for microtia/bone anchored hearing aid(BAHA) patients, joint clinic with audiological physician, SLT and audiology for aided children younger than three years and ABR under melatonin to reduce requirement for GA
- use of all the audiology rooms, daily huddles, questionnaires prior to clinic appointment, ringing DNA appointments 15 minutes after the appointment time
- use of specific questionnaires, e.g. the “Who am I?” questionnaire that was suggested at a BAA webinar has helped with children who may struggle to settle/engage in a clinical situation.

Current and anticipated challenges

Services were asked about challenges they are experiencing now and the ones they anticipate in the future. Twelve services reported current challenges, while 11 identified future challenges. Themes were identified, as below.

Challenges you are experiencing now	Challenges you anticipate in the future
<ul style="list-style-type: none"> • low staffing levels • recruitment challenges • increased workload • access to training • staff time for audits • low staff morale • no support from outside the service • high demand and low capacity across all services • personal challenges. 	<ul style="list-style-type: none"> • recruitment and retention • low staffing levels • increasing demand • new technology • low staff morale and burnout • access to training • concerns about sustainability of paediatric audiology • establishing Children’s Hearing Services Working Groups and multi-agency working.

At the end of the survey, space was provided for respondents to add to or clarify any of their answers. Four services reported additional challenges in that section, including:

- difficulties with parental engagement, for which they are planning to attend local groups supported by ToDs/educational audiologists/SLTs to try to get feedback
- service-level data and reporting quality
- linking with many local authority education departments, each working differently with different criteria for support
- lack of national-level workforce planning, meaning that there is a gap in university education producing audiology graduate.

Conclusion

This report presents evidence of some issues of concern likely to affect children and young people requiring timely access to good quality audiology services in Scotland, and variations in clinical practice and quality assurance. These findings support the issues identified by the recent Independent Review of Audiology Services in Scotland (2023).

The independent review found multiple, systemic problems within audiology services in NHS Scotland, and it is clear that resolving these requires a whole-system approach. The review concluded:

“... this is not the time for a half-hearted response or for a sticking-plaster approach. This is a time to acknowledge the systemic issues and to use this report as the catalyst for a transformation process, which will require vision, national leadership and accountability. It will require planned investment in the education and training of our audiology professionals to ensure the right numbers are available with the required skills. In parallel, it will require the establishment of robust, quality assurance processes for services to affirm the delivery of high-quality care.”

The need for this transformation process is demonstrated by the findings of this report, as is the urgency to take action on all 55 recommendations for change identified in the report. Deaf children cannot wait for the support they need and have a right to.

The NDCS is very grateful to audiology services for sharing these insights, particularly in the light of all the challenges that audiology professionals and services face in the current economic climate in the NHS. This evidence will be instrumental in helping us to influence national policy affecting areas of concern in audiology.

If you have any questions about this report or our work, please contact professionals@ndcs.org.uk.