



## Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. The main objectives of this report are to:

1. Inform discussions on new topics received by HTW.
2. Determine the quantity and type of evidence available on a topic.
3. Assess the topic against HTW selection criteria.

Topic:	Primary Care Audiology
Topic exploration report number:	TER078

### Aim of Search

Health Technology Wales researchers searched for evidence on the clinical and cost effectiveness of primary care audiology compared with consultation with a GP or practice nurse for people with ear or hearing-related symptoms.

### Summary of Findings

An initial high-level search was carried out, focusing on relevant secondary evidence (technology assessments, evidence-based guidelines). The NICE Guideline on assessment and management of hearing loss in adults (NG98) was published in June 2018, but did not specifically refer to primary care audiology. The Healthy Ireland Implementation Plan 2018-2022 outlines that audiology forms part of community network services. A search for systematic reviews, reviews, economic evaluations and primary studies identified one potentially relevant study. A summary of each type of evidence follows.

#### Guidelines

No guidelines specifically mentioned primary care audiology. The NICE guideline on the assessment and management of hearing loss in adults (NG98), published in June 2018, recommends that, following exclusion of impacted wax and acute infection, audiological assessment should be arranged and referrals made for additional diagnostic assessment if needed for people with suspected hearing difficulties. The guideline also details what should be included in the assessment and management in audiology services. The Healthy Ireland Implementation Plan 2018-2022 states that 'community network services include audiology... and are typically provided for populations of approximately 50,000 people'.

#### Published literature

A Medline search combining the MeSH subject headings 'primary health care' and 'audiology', with no study design filters, identified seven studies. When filters for systematic review, meta-analyses and economic evaluations were applied to the MeSH subject heading search, two studies were identified. One review (and one primary study identified in the search without

study type filters) was deemed potentially relevant through reviewing titles and abstracts. The review in the USA setting covers screening, evaluation, treatment and referral for hearing loss in the primary care setting.

No relevant technology assessments, health economic evaluations or primary studies were identified.

#### **Other sources**

No studies were identified by the topic proposer.

Four potential studies were cited on the Betsi Cadwaladr University Health Board website, under 'Current Audiology Projects'. These appear to be conference abstracts from British Academy of Audiology Conferences from 2016-2018, but these sources were not found.

1. Goggins S, Tyson S, VanWeert K, Bent S. Open Access provision for existing patients. British Academy of Audiology conference 2016.
2. Evans M, Canton S, Soden B, Wild J. Primary Care Audiology. British Academy of Audiology conferences 2016, 2017, 2018.
3. Bentley K, Jones L, Bent S, Townsend J, Kluk-de Kort K. Investigating Outcomes of Cochlear Implants in Congenitally, Pre- and Peri Lingually Deafened Adults. BCIG conference 2018.
4. Townsend J . Relationship between APDIP Score and Outcomes in Pre-Lingually Deafened Cochlear Implant Users. BAA conference 2018.

A case study from Abertawe Bro Morgannwg University Health Board reported that 44% of patients with a range of ear-related conditions across eight GP surgeries have been managed solely by the primary care audiologist and discharged. 35% were referred to the audiology service for hearing aids, 15% were referred to ENT and 6% required a GP opinion. The author concludes that these figures indicate that primary care audiology can reduce demand on GP and ENT clinics, though there is no apparent comparator (the case study does not report how these numbers have changed since introducing the intervention, for example). The case study further describes that 95% of patients report better understanding their condition, 92% were more confident about their health and 94% were better able to help themselves.

## Conclusions

One potentially relevant review from the USA was identified, which covers screening, evaluation, treatment and referral for hearing loss in the primary care setting. No cost effectiveness evidence was identified which compares primary care audiology with the current standard of care (consultation with a GP or nurse).

## Areas of Uncertainty

There is uncertainty in the population. The population could be those people presenting with ear and hearing-related symptoms or ongoing management of people who have ear and hearing-related diagnoses.

There is uncertainty in the definition of the intervention and comparator. There may be differences in the range of services which can be delivered by primary care audiologists and GPs and nurses. The duration of appointments with the primary care audiologist and GP may differ, for example. It is also unclear how the service will be delivered e.g. clinic one day per week

## Feasibility of Technology Assessment

Health Technology Wales researchers noted that primary care audiology has the potential to improve clinical outcomes, as it may result in more appropriate management strategy and reduced waiting times. Data collected by Primary Care Audiology services in Wales over the past two years, shows that only 5% require a further appointment with their GP, 10% are referred to ENT and approximately 2% are referred for diagnostic imaging. The remaining cases are either discharged or managed by Audiology services. Primary Care Audiology could potentially reduce demand for GP and ENT time. In addition, the service could result in more appropriate management strategies for patients in terms of referrals to secondary care. More appropriate management strategies for patients in terms of referrals to secondary care and potentially reduced waiting times could result in improved quality of life for patients.

The services are still in development and are only available in some areas, with often limited capacity. The topic referrer noted that data obtained from a number of GP practices in Wales provides an estimated annual demand of 75/1000 population. The impact on NHS Wales resources is unclear.

The topic referrer did not identify any published evidence and no evidence was identified during topic exploration. No evidence was identified which demonstrated how Primary Care Audiology affects patient outcomes compared with the current standard of care.

HTW's Assessment Group concluded not to progress this topic further.

## Brief literature search results

Resource	Results
HTA organisations	
<a href="#">Healthcare Improvement Scotland:</a>	No relevant results found for search terms 'audiology' or 'audiologist'
<a href="#">Health Technology Assessment Group</a>	Healthy Ireland Implementation Plan 2018-2022
<a href="#">Health Information and Quality Authority</a>	No relevant results found for search terms 'audiology' or 'audiologist'
UK guidelines and guidance	
<a href="#">SIGN</a>	No relevant results found for search terms 'audiology' or 'audiologist'
<a href="#">NICE</a>	<a href="#">Hearing loss in adults: assessment and management</a> (2018) NICE guideline NG98
Secondary literature and economic evaluations	
<a href="#">EUnetHTA</a>	No relevant results found for search terms 'audiology' or 'audiologist'
<a href="#">ECRI</a>	No relevant results found for search terms 'audiology' or 'audiologist'
<a href="#">Cochrane library</a>	No relevant results found for 'primary care audiology', 'audiology' or 'audiologist'
Medline	<p>A search combining the MeSH subject headings 'primary health care' and 'audiology', with no study design filters, identified seven studies. When filters for systematic review, meta-analyses and economic evaluations were applied to the MeSH subject heading search, two studies were identified. One review was deemed potentially relevant:</p> <p>Primary care screening and evaluation of hearing loss. [Review] [19 refs] Smeltzer CD. Nurse Practitioner. 18(8):50-5, 1993 Aug. [Journal Article. Review] UI: 8233154</p>
Primary studies	
Medline	No potentially relevant primary studies were identified in the Medline search which combined the MeSH subject headings 'primary health care' and 'audiology', without applying study design filters.
<a href="#">Cochrane library</a>	A search of titles, abstracts and keywords using the search term 'primary care audiology' identified 29 studies, of which none were deemed relevant.
Ongoing research	
<a href="#">PROSPERO database</a>	No relevant results found for 'primary care audiology', 'audiology' or 'audiologist'
<a href="#">Clinicaltrials.gov</a>	A search for the term 'primary care audiology' identified 17 studies, none of which were deemed relevant. A search for the term 'audiology' identified 99 studies, none of which were deemed relevant.
Other	

<p><a href="http://www.wales.nhs.uk/sitesplus/861/page/97632">http://www.wales.nhs.uk/sitesplus/861/page/97632</a></p>	<p>Four potential studies were cited on the Betsi Cadwaladr University Health Board website, under 'Current Audiology Projects'. These appear to be conference abstracts from British Academy of Audiology Conferences from 2016-2018, but these sources were not found. This merits further investigation.</p> <ol style="list-style-type: none"> <li>1. Goggins S, Tyson S, VanWeert K, Bent S. Open Access provision for existing patients. British Academy of Audiology conference 2016.</li> <li>2. Evans M, Canton S, Soden B, Wild J. Primary Care Audiology. British Academy of Audiology conferences 2016, 2017, 2018.</li> <li>3. Bentley K, Jones L, Bent S, Townsend J, Kluk-de Kort K. Investigating Outcomes of Cochlear Implants in Congenitally, Pre- and Peri Lingually Deafened Adults. BCIG conference 2018.</li> <li>4. Townsend J . Relationship between APDIP Score and Outcomes in Pre-Lingually Deafened Cochlear Implant Users. BAA conference 2018.</li> </ol>
<p><a href="http://www.goodpractice.wales/SharedFiles/Download.aspx?pageid=239&amp;mid=546&amp;fileid=542">http://www.goodpractice.wales/SharedFiles/Download.aspx?pageid=239&amp;mid=546&amp;fileid=542</a></p>	<p>A case study from Abertawe Bro Morgannwg University Health Board reported that 44% of patients with a range of ear-related conditions across eight GP surgeries have been managed solely by the primary care audiologist and discharged. 35% were referred to the audiology service for hearing aids, 15% were referred to ENT and 6% required a GP opinion. The author concludes that these figures indicate that primary care audiology can reduce demand on GP and ENT clinics. The case study further describes that 95% of patients report better understanding their condition, 92% were more confident about their health and 94% were better able to help themselves.</p>

<p>Date of search:</p>	<p>25/04/2019 (Updated 16/01/2020)</p>
<p>Concepts used:</p>	<p>Audiology, audiologist, primary care audiology MeSH Subject Headings: Primary Health Care, audiology</p>