Division	**North Wales Managed Services**
Development or Scheme	**Maintain and extend the role of Advanced Audiology Practitioner in Primary care to release GP capacity; increase accessibility providing specialist care closer to come and develop a more integrated pathway**
Author/s	**Jane Wild/John Day**
Version	**2.0**
Date	**5th January 2018**

1. Executive Summary & Recommendations

1.1 Purpose

This business case an evaluation of the case to continue to provide the Advanced Practitioner Audiologists in Primary Care and to develop the scheme further to provide equity of access and realise the same benefits across BCUHB.

The scheme has been implemented using Primary Care Investment Funds. A decision now needs to be made as to whether the service continues, how it will be funded and a plan developed for extension across BCUHB.

There is an increasing demand on GPs and other Primary Care staff. This innovative service model has been proven in practice at BCU over the last 2 years. It releases GP capacity by making the Audiologist in Primary Care the first point of contact for many people with hearing, tinnitus and certain balance conditions.

Hearing, tinnitus and balance difficulties are important and prevalent health conditions that, if unmanaged, have a significant impact on quality of life. They are often associated with aging and the demand for these services is increasing and likely to increase further as the population ages.

The scheme has been well received by patients and Primary Care professionals.

The scheme is in line with Prudent Healthcare Principles and National and Health Board Policy including the recently published 'Framework of Action for Wales (2017 -2020) – Integrated framework of care and support for people who are D/deaf or living with hearing loss'.

The vision is that all people with hearing, tinnitus and specific balance difficulties can access an Advanced Practice Audiologist as the first point of contact in a Primary Care location, enabling them to receive more specialist care sooner and closer to home and at the same time freeing up GP capacity.

1.2 Recommendation

The option appraisal within this business case identifies extension of the scheme across BCUHB as the preferred option. Core funding from within Primary Care budgets needs to be identified to enable this service, and the benefits it brings, to be continued and extended. There benefits are:

- Release of GP time
- More people get specialist Audiology advice and management sooner and closer to home
- Patient pathway is shorter for more people
- Audiology continue to contribute to the development and delivery of wax management pathways
- Accessibility for people with hearing, tinnitus and specific balance conditions improves
- Equity of access and services across BCUHB
- BCUHB leading the way – reputation for innovative service provision is enhanced
- As a Healthboard, BCU will comply with WG specific policy and planning actions for introduction of primary

care Audiology across Wales (Integrated Plan for Hearing Loss 2017-2020)

1.3 Approval Process

Submission of business case by 5th January 2018 for consideration at delivery agreement panel meeting week beginning 8th January 2018

2. **The Strategic Case**

2.1 Overview of the Business Case

This innovative scheme removes the need for many people with hearing, tinnitus and certain balance conditions (specifically, Benign Paroxysmal Positional Vertigo (BPPV)), to see their GP.

It is estimated that if the scheme was extended and implemented across BCUHB more than 20,000 patients would be seen by the Audiologist in Primary Care releasing more than 14,000 GP appointments each year, thereby freeing up GPs to manage more complex conditions and cases.

This business case will demonstrate the value of extending this scheme across BCUHB and has been informed by the experience and evaluation of this new model of working over the last 18 months.

Simply, the new scheme removes the need for many people to see a GP by making the Audiologist the first point of contact for people with hearing difficulties, tinnitus and BPPV.

Implementation to date has enabled:

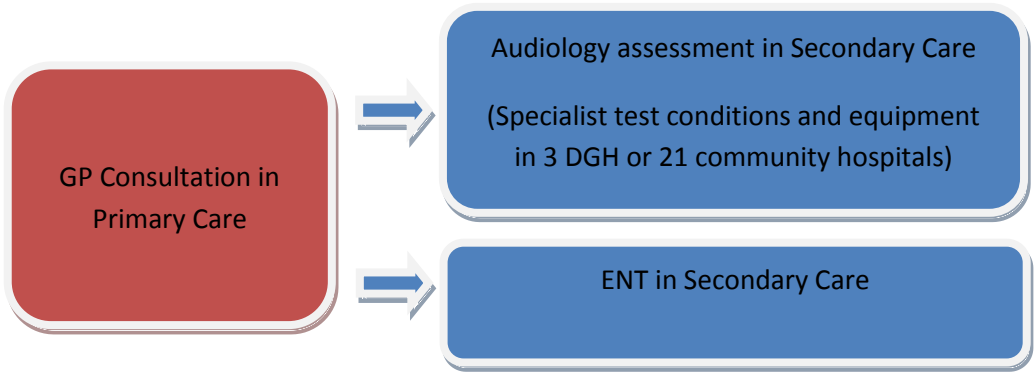
- Development of job descriptions and definition of new roles
- Recruitment of Masters level Advanced Practitioner Audiologists (including internal and external recruitment)
- Up-skilling of staff to enable wax removal using micro-suction techniques
- Agreement of pathways and referral criteria between primary care, audiology and ENT to enable more integrated care
- Building relationships with primary care colleagues
- Solving logistical and practical challenges to ensure safe and effective service delivery

It is worth noting at the beginning of this business case that this scheme does not aim to move the delivery of Secondary Care Audiology services into Primary Care locations. Secondary care Audiology Service are already delivered in 3 District General and 21 Community Hospitals across North Wales where specialist test conditions and equipment are available. Additionally the scheme does not aim to reduce actual demand for Secondary care services although it is expected that referrals may be more appropriate.

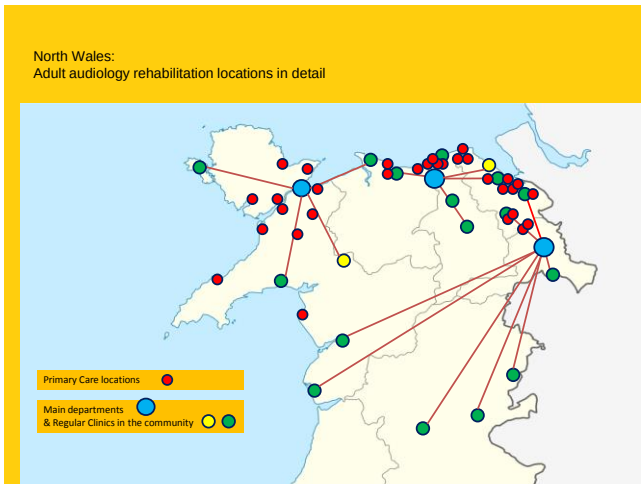
There is also strategic fit of this service with Welsh Government Policy. The Framework of Action for Wales (2017 - 2020) – Integrated Framework of Care and Support for People Who are D/deaf or Living with Hearing Loss, was published in May 2017. A recent letter from Karin Phillips, Deputy Director of Primary Care has been included as Appendix 2. This letter supports the implementation of the Framework and specifically mentions this scheme and its implementation at BCUHB. A National Project Board has been established, chaired by the Chief Nursing Officer. **We can expect all Healthboards to be challenged further by the Welsh Government with respect to implementing the Framework for Action, and specifically the further establishment of Primary Care Audiology.**

2.2 The Current Service

People with hearing difficulties, tinnitus and BPPV (undiagnosed) will present to their GP to seek advice and investigation. Many of these people will be referred on to Secondary Care Audiology or ENT for assessment and management.



Over the last 18 months a new and innovative scheme has been implemented and evaluated in some areas within BCUHB. The new scheme replaces the GP as the first point of contact with an Advanced Practice Audiologist. To date, this scheme has seen more than 6000 patients in 31 GP Practices. The case for change below and other information within this business case is based on the evaluation and experience of this scheme.



2.3 The Case for Change – Benefits of the scheme

Audiologists in Primary Care release GP Capacity
It is well recognised that demands on Primary Care and GPs is increasing and set to increase further. This scheme directly releases GP capacity. Evaluation data shows that only 30% of people are seeing their GP prior to the Audiologist in Primary care, making the Audiologist the first point of care in the majority of cases. In one large Practice the proportion seeing their GP first is as low as 10%.

Based on 30%, it is calculated that, with current capacity, approximately 4200 GP appointments will be released each year. If the scheme were extended to cover the whole of BCUHB this would increase to over 14,000 GP appointments being released. If the proportion of people accessing the audiologist as the first point of contact were to increase to the proportions within our current best Practice, this would increase further to 18,000 appointments.

Audiologists in Primary Care Can Contribute to a Sustainable Primary Care Workforce
As outlined in 'A Planned Primary Care Workforce for Wales', the future of the primary care workforce needs to include a multi-professional and multi-disciplinary workforce. Health Care and Clinical Scientists in Audiology can be an integral and valuable part of the future Primary Care workforce across BCUHB. Workforce plans are in place to

ensure that sufficient graduate audiologists are available to work in Wales.

Whilst the current scheme has been limited to adults with hearing, tinnitus and specific balance conditions, the role of the Audiologist in Primary care has the potential to be developed further, thereby increasing the value of the role and further contributing to the sustainable workforce. Role development could include children presenting with these conditions and management of outer and middle ear conditions.

Audiologists in Primary Care Can Increase Care Closer to Home
Evaluation data indicates that the Audiologist in Primary Care can effectively manage many (44%) patients in Primary Care many of which may have otherwise required a referral to Secondary Care services, thereby shortening the patient pathway and providing care earlier and closer to home.
Specifically:

- Over half of people presenting with symptoms consistent with BPPV will be treated or reassured and discharged at their first appointment with the Audiologist in Primary Care
- Approximately half of these will have had a positive diagnosis of BPPV and had the condition treated within the same first appointment
- Only 10% will require onward referral to ENT or Audiology for further assessment due to the complexity of their condition or risks associated with treatment in the Primary care setting.
- More people with hearing difficulties and tinnitus will be identified and receive the advice and management they need.
- 29% of people presenting with hearing difficulties were assessed, provided with information and advice and discharged in Primary Care.
- 32% of people presenting with tinnitus were provided with information and advice and discharged in Primary Care.

A number of case studies to demonstrate this have been included as Appendix 1 to this document.

Audiologists in Primary Care Provide a More Effective and Integrated Patient Pathway
As well as managing many patients within the Primary Care setting, Audiologists in Primary Care are better able to identify those patients who require referral to Secondary Care. Early data is available for referral onto Secondary Care Audiology. Analysis of a sample of referrals (n=143) from Audiology in Primary Care shows that the appropriateness of referrals, based on indicators early in the pathway (i.e. people that end up being offered, accepting and receiving an intervention), has increased from 80% to 85%. However, long term outcomes, perhaps related to improved adherence to use of interventions provided, will be a better indicator of referral appropriateness. It is planned that this data to be collected and analysed once enough time has passed. It is worth noting that it was thought by the Audiology team that the appropriateness of referral to Secondary Care Audiology would be higher than 85%. The team will be looking in detail at the possible reasons around this and modifying practice and processes with the aim of improving further.

Additionally, for those people who require onward referral to audiology or ENT, the Audiologist in Primary Care has been able to perform some initial assessment and provide advice and information which will support this referral. Over 90% of referrals to Secondary Care Audiology included some information about hearing levels informed by Audiometry performed in Primary Care and more than 50% of people referred to ENT had middle ear function assessed prior to referral.

Hearing, Tinnitus and BPPV are Important Health Conditions
Hearing, tinnitus and Benign paroxysmal positional vertigo (BPPV) are important health conditions that, if left unmanaged, result in reduced quality of life and impact on an individual's physical and mental health.

Hearing:

- It is thought that hearing difficulties affect around 575,500 people in Wales and more than 130,000 at BCUHB, with more than 40% of people over 50 years old having hearing loss, rising to 71% of people over

the age of 70. This is set to increase to 1 in 5 people in the UK by 2035.

- There is a growing body of evidence of an independent association between hearing loss and dementia. In a recent Lancet Commission 'Dementia prevention, intervention, and care', hearing loss was identified as the biggest modifiable risk factor for dementia.
- Hearing impairment is an important long term health condition and in Wales, it is ranked as the fifth highest cause of years lived with disability by the WHO Global Burden of Disease initiative. It is also the leading cause of years lived with disability for those over 70.
- Hearing loss is associated with an increase in chronic health conditions, including diabetes, stroke and sight loss; it presents a greater risk of falls and more visits to healthcare professionals. People with hearing loss are also two and a half times more likely to develop depression than their peers without hearing loss.
- Hearing impairment is often unrecognised and evidence suggests that people wait, on average, 10 years before seeking help for their hearing loss and that when they do, GPs fail to refer 30-45% to NHS audiology services. It is estimated that of the 11 million people in the UK with manageable hearing loss less than half of people who would benefit from hearing aids have them. This leaves a significant unmet need in our population.

Tinnitus:

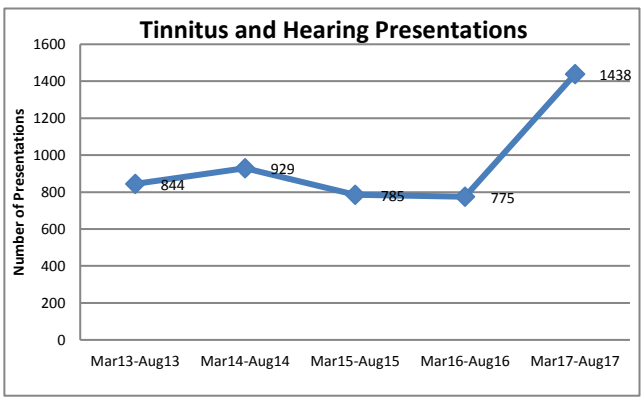
- Whilst many people will experience non-bothersome tinnitus at some point in their life, about 10% of people experience persistent tinnitus. Of those people who have persistent tinnitus, around 1 in 10 will find that it has a significant impact on their quality of life.
- Tinnitus can negatively affect a person's health and well-being causing distress, depression, anxiety, sleep disturbance and poor concentration. In some cases these effects are very significant.

BPPV:

- Benign paroxysmal positional vertigo (BPPV) is thought to be the most common cause of vestibular vertigo affecting 15% of the population and accounting for approximately 25% of balance referrals to ENT.
- Unmanaged BPPV is reported to lead to depression, anxiety, diminished quality of life and result in increased medical consultations.
- It is suggested that most individuals first presenting with BPPV to GPs in Primary Care receive no treatment or receive medication for vertigo and it is thought that only 10% are ultimately treated with positioning manoeuvres (directly of following referral).

Audiologists in Primary Care can Improve Accessibility for People with these Important Health Conditions

It is well evidenced that many people with these conditions do not present in Primary Care, or if they do present are often not referred on for specialist assessment, advice and management. Early evaluation data shows that the presence of the Audiologist in Primary Care resulted in an increase in presentations of these important health conditions (see graph below). Unmanaged, these conditions result in reduced quality of life and impact on an individual's physical and mental health.



Audiologists in Primary Care are in line with Prudent HealthCare Principles and National Strategy and Policy
'A Planned Primary Care Workforce for Wales' identifies the need for a multi disciplinary and multi-professional workforce in Primary Care. Audiologists are identified as an integral and valuable part of this future Primary Care workforce.

The Framework of Action for Wales (2017 -2020) – Integrated framework of care and support for people who are D/deaf or living with hearing loss was published in May 2017 (see 2.1 above). This framework highlights the importance of early intervention; states that people will be able to self refer to audiology services and that in order to ensure ease of access, many Audiology services should be delivered in the local community. This scheme fulfils all the requirements within this new WG Policy. A recent letter from Karin Phillips, Deputy Director of Primary Care has been included as Appendix 2. This letter supports the implementation of the Framework and specifically acknowledges this scheme and its implementation at BCUHB.

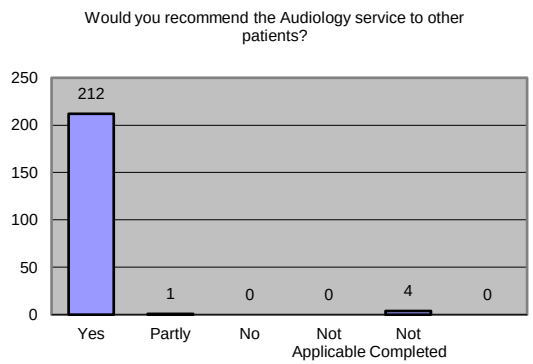
This scheme is in line with overarching Healthcare in Wales Strategy, particularly in relation to Effective and Timely Care which promotes timely access and care closer to home.

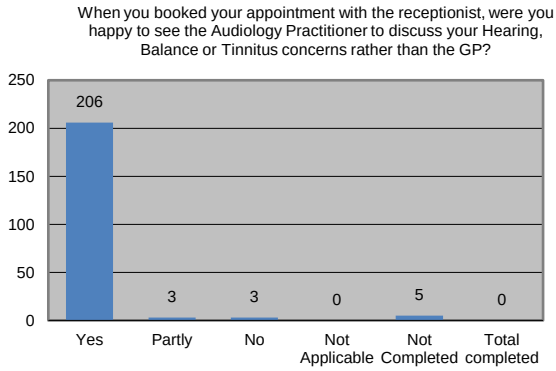
Prudent Healthcare principles include making the most effective use of all skills and resources ensuring that we 'only do, what only we can do'. Making the Audiologist in Primary care the first point of contact fits well with this and other Prudent Healthcare Principles.

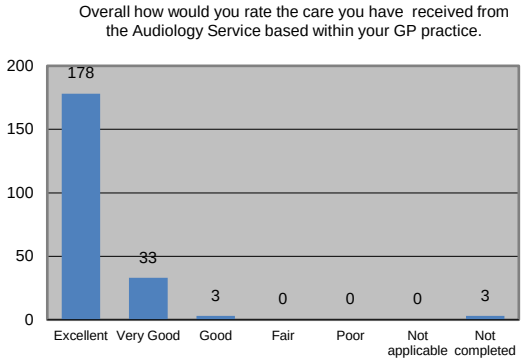
Audiologists in Primary Care can support and contribute to an effective and efficient wax management pathway
Wax management is a growing challenge across BCUHB. Audiologists in Primary care have been working with Clusters to develop and test new models of service delivery with specialist micro-suction in primary care locations forming part of this pathway. It is likely that this model of service delivery will be safer, more effective and reduce the need to refer people to ENT for wax removal.

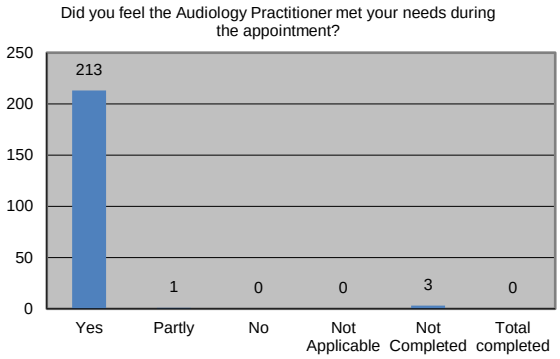
Audiologists in Primary Care is a Tested Model
This model of service delivery is believed to be the only one of its kind within the UK and the wider Western Audiology world. The Primary Care Investment Fund funding has enabled this new and innovative service model to be tested. Evaluation and feedback has shown that this is a safe and clinically effective model which can be replicated across BCU and other Health Boards in Wales

Audiologists in Primary Care have Resulted in Positive Patient Feedback:
Service user experience has been very positive. Two hundred and seventeen people have returned an anonymously completed survey. The responses show a high level of effectiveness and acceptance of the Audiology service in Primary Care, with 98% of people reporting that their needs had been met by the Audiologist in Primary Care, 97% rating the service as either very good or excellent and 98% of people saying they would recommend the Audiology service to others





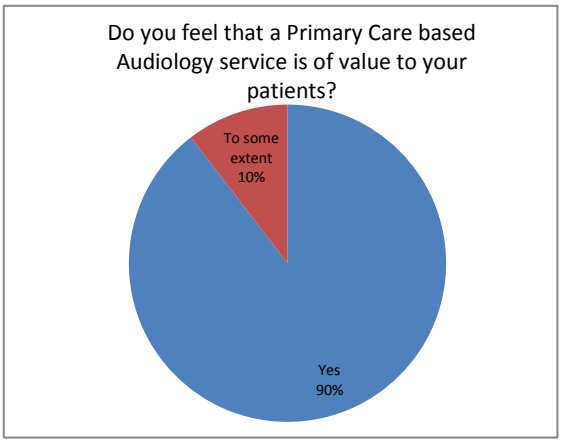


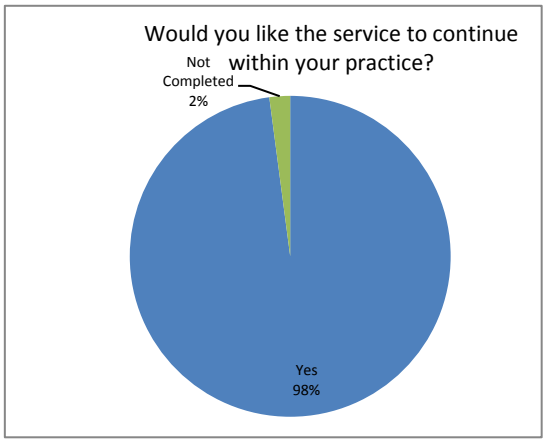


Audiologists in Primary Care have Resulted in Positive Primary Care Clinician Feedback

The Audiology in Primary Care service is held in high regard. The views of Primary Care staff have been collected. The data below shows that 100% of PC clinicians responding feel that the service is of value to their patients at least to some extent and 98% reporting that they would like the service to continue in their practice.

In addition to this survey, a strong positive regard for the service has been communicated to audiology by many GPs verbally and in writing (see Appendix 3 – support letters from GPs).





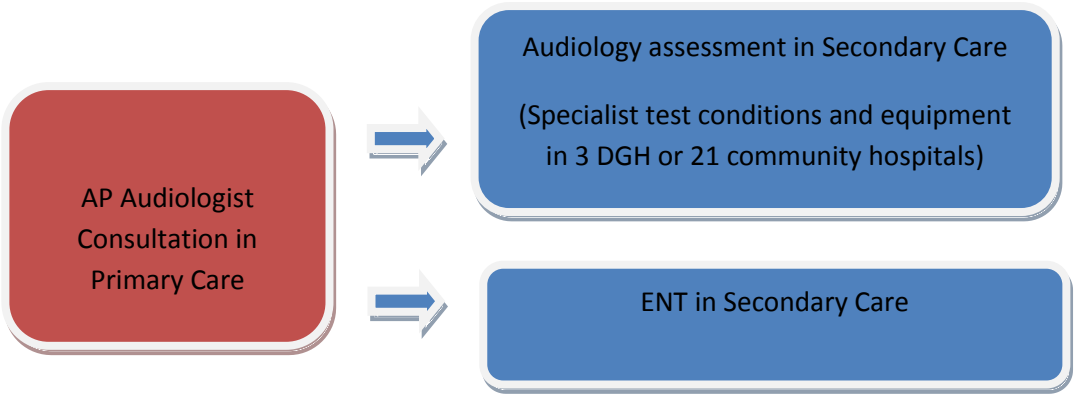
Extending the Audiology in Primary Care Scheme is essential to ensure equity of access and to Realise the Benefits across BCUHB

Currently, not all people are able to access an Audiologist as their first point of contact in Primary Care. In order for equity of access to be achieved and for the benefits realised during the scheme to date, further investment is required.

2.4 Proposed Service Development

Maintain and extend the scheme to provide equity of access across BCUHB and realise the same benefits across BCUHB. Increase the delivery of service from 31 Practices within 9 Clusters to all Practices within all 14 Clusters

Change the first point of contact from GP to Advanced Practitioner Audiologist for people with hearing, tinnitus and specific balance symptoms. Audiologists will deliver sessions within GP practices releasing GP capacity.



As well as replacing the initial consultation and freeing up GP capacity, this new model will enable people to get specialist information, advice and management sooner and closer to home.

2.5 Areas Affected by the Proposal, Inter-dependencies

The success of this scheme has depended on the development of good relationships between the Audiologists in Primary care and Primary Care clinical and non-clinical staff. These relationships have led to appropriate signposting of patients to the Audiologist and to more integrated pathways between Primary and Secondary Care.

It is expected that similar relationship would be developed between Audiology and Primary Care teams within the Practice and Clusters where the service has not yet been implemented.

The service will continue to enable a more integrated pathway between primary care and Secondary Care Audiology services and ENT.

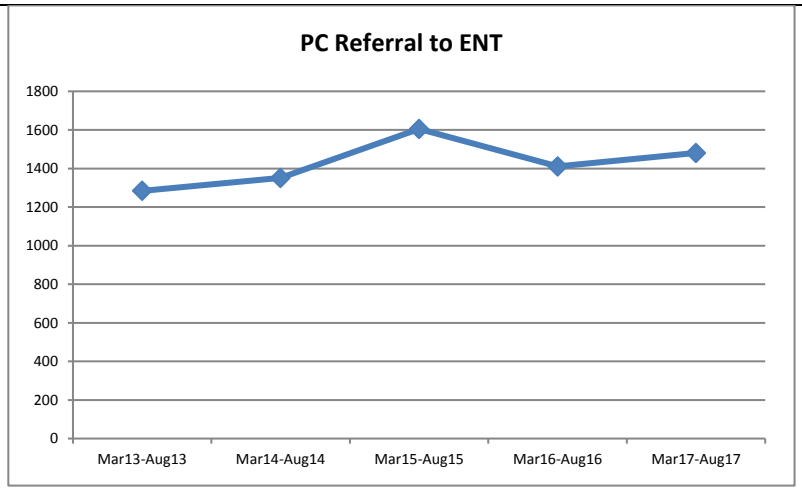
2.6 Performance, Activity and Contracting

Continuing with the existing capacity within the 31 Practices will enable 6,000 people each year to access an Audiologist in Primary Care as the first point of contact. Extending the service with additional resources will enable more than 20,000 people each year to access an Audiologist in Primary Care as the first point of contact.

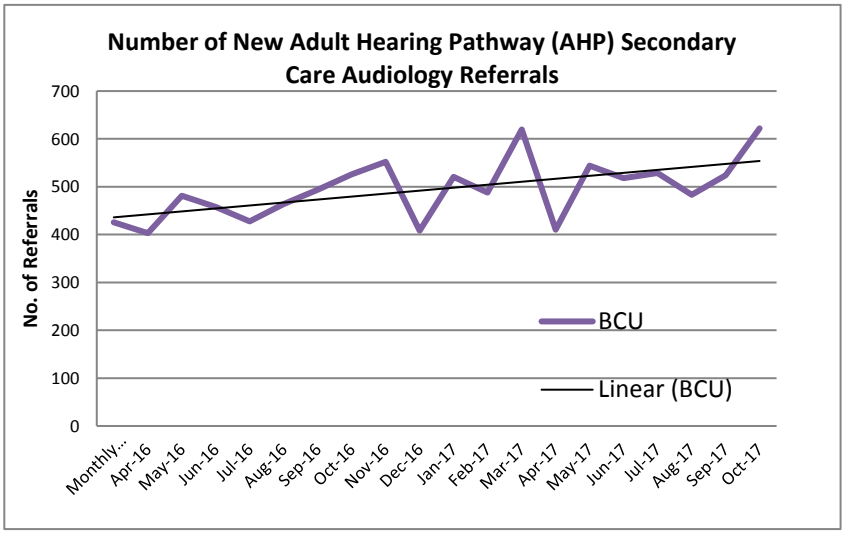
Evaluation data to date indicates that 44% of patients seen have been effectively managed by the Audiologist in Primary Care, with the majority (78%) of these being managed at the initial appointment. These patients did not require any onward referral or to see another clinician within the Primary Care team.

Only 6% of patients are referred to the GP; 27% referred to Secondary Care Audiology and 11% referred to ENT.

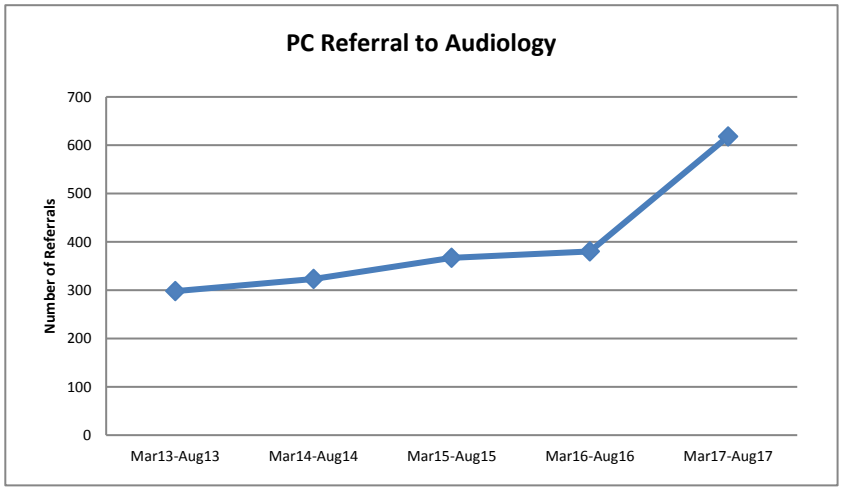
This referral rate to ENT is consistent with the referral rate seen prior to the Audiology in Primary Care scheme being implemented. Data in the graph below was collected for presentation rates over 6 month periods spanning the last 5 years, specifically 1st March to 31st August of the years 2013, 2014, 2015, 2016 and 2017. Searches were conducted using the Population Reporting function of the EMIS patient management system to find the number of patients coded with specific conditions referred in each sampling period. This data was only collected from practices where the Audiologist is currently delivering a service in Primary Care, however it is expected that this would be representative of other practices across BCUHB.
Evaluation supported the proposal that Audiologists would be as effective as GPs at identifying those people who required onward referral to ENT for specialist medical assessment.



The number of referrals received by the Secondary Care Audiology Service from Primary Care, for full Audiological assessment and rehabilitation, has been slowly increasing over a number of years.



However, additional evaluation of Primary Care data shows that there is an additional significant increase in numbers referred since the Primary Care Audiology service has been in place. Although the numbers of referrals have increased, this reflects the increased number of presentations of hearing, tinnitus and BPPV in Primary Care.



Increased presentation rates for hearing and tinnitus is thought to be due to i) an underlying unmet need ii) a backlog of people willing to take this opportunity to resolve their difficulties through this new route. On this basis, it is speculated that this higher presentation rate, since the service commenced, may in time lower to a sustained level (although still greater than historic demand).

Audiologists in Primary Care are managed professionally and clinically by the BCUHB Audiology Service. Currently this is 5.5WTE staff including 3.0WTE Area leads.

2.7 Milestones and Quantified Benefits

Achieved Milestones and Quantifiable Benefits
The initial scheme milestones have been achieved:
The recruitment of 3.0 WTE advanced practitioners taking on the roles of Area leads and a further 2.5 WTE advanced practitioners delivering highly regarded and clinically effective services in 31 GP practices.

5 staff have successfully completed the M-module training in micro-suction and ear care.

More than 6000 patients have been seen resulting in approximately :

- 4,200 saved GP appointments
- 2640 patients successfully managed in PC closer to home

Future Milestones and Quantifiable Benefits

- Provide equity of access and care by making service available in all GP practices
    - Increase resources and recruit additional Advanced Practice Audiologist
    - Build relationships with all Primary Care Clusters
    - Deliver service in all GP Practices/Clusters across BCU
- Release GP capacity
    - Achieve first point of contact at least comparable to current scheme (only 30% people seeing GP prior to Audiologist)
    - Move towards fort point of contact for current best practice (only 10% seeing GP prior to Audiologist)
- Manage as many people as close to home as possible, reducing need for ENT/Audiology referrals
    - Identify opportunities to purchase suitable clinical couches to increase number of people with BPPV who can be treated in PC
    - Extend scope of practice to include paediatrics and management of outer ear conditions
    - Provision of sound treated booths (to improve quality and value of hearing assessment measurements)
    - Wax removal equipment/facilities
    - Integration of service with future BCU wax removal pathway

- Maintain high levels of patient satisfaction
- Maintain high levels of perceived value by GPs and other Practice staff

3. Formulation and Short-listing of Options

3.1 Overview of Option

Option 1: Disinvest in the Audiology in Primary Care Scheme
Option 2: Continue to deliver the Audiology in Primary Care Scheme in the existing 31 Practices (mix of GMS and HB managed Practices) identifying and allocating Core funding

Option 3: Move the current resources to HB managed Practices identifying and allocating Core funding.
Option 4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB

3.2 Benefits of the Option

Option 1: Disinvest in the Audiology in Primary Care Scheme

- Investment funds freed up to test new schemes although this would not be immediate, as staff would need to be redeployed, possibly on protected pay.
- No requirement to identify alternative funding

Option 2: Identify core funding and continue to deliver the Audiology in Primary Care Scheme in the existing 31 Practices (mix of GMS and HB managed Practices)

- GP capacity continues to be released
- People get specialist Audiology advice and management sooner and closer to home
- Patient pathway is shorter for many
- Audiology continue to contribute to the development and delivery of wax management pathways
- Accessibility for people with hearing, tinnitus and specific balance conditions improves
- No withdrawal of services required
- BCUHB leading the way – reputation for innovative service provision persists

Option 3: Identify core funding and move the current resources to HB managed Practices identifying and allocating Core funding.

- GP capacity continues to be released
- People get specialist Audiology advice and management sooner and closer to home
- Patient pathway is shorter for many
- Audiology continue to contribute to the development and delivery of wax management pathways
- Accessibility for people with hearing, tinnitus and specific balance conditions improves
- Core funding is allocated to HB managed practices
- BCUHB leading the way – reputation for innovative service provision persists

Option 4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB

- More GP capacity is released
- More people get specialist Audiology advice and management sooner and closer to home
- Patient pathway is shorter for more people
- Audiology continue to contribute to the development and delivery of wax management pathways
- Accessibility for people with hearing, tinnitus and specific balance conditions improves
- Equity of access and services across BCUHB
- BCUHB leading the way – reputation for innovative service provision is enhanced

3.3 Cost & Resource information for the Options

Option	Human Resource	Physical resource – non-recurrent (portable equipment and training)	Physical resource – recurrent (consumables, travel)	**Total Costs**	Potential GP appts released
1: Disinvest in the Audiology in Primary Care Scheme	0	£0	£0	**£280K Pay Costs will continue medium term as Audiologists in PC are recruited on recurrent basis**	0
2: Continue to deliver	3.0WTE Band 8a	£0	£32K	**£312K**	6000

the Audiology in Primary Care Scheme in the existing 31 Practices (mix of GMS and HB managed Practices) identifying and allocating Core funding	Advanced Audiology Practitioners and Area leads 2.5WTE Band 7 advanced Audiology Practitioners	Set up already in place			
3: Move the current resources to HB managed Practices identifying and allocating Core funding	3.0WTE Band 8a Advanced Audiology Practitioners and Area leads 2.5WTE Band 7 advanced Audiology Practitioners	£0 Set up already in place	£32K	**£312K**	6000
4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB	3.0WTE Band 8a Advanced Audiology Practitioners and Area leads 12.0WTE Band 7 advanced Audiology Practitioners	£47,500 (set up costs for an additional 9.5WTE)	£87K	**£840K**	20,000

3.4 Key Assumptions and Dependencies of the Option

Option	Key assumptions and dependencies
1: Disinvest in the Audiology in Primary Care Scheme	• Current audiology primary care staff are employed on permanent contracts so savings associated with disinvestment would not be immediate, as staff would need to be redeployed, possibly on protected pay.
2: Continue to deliver the Audiology in Primary Care Scheme in the existing 31 Practices (mix of GMS and HB managed Practices) identifying and allocating Core funding	• Core funding is identified
3: Move the current resources to HB managed Practices identifying and allocating Core funding	• Core funding is identified • There is sufficient and comparable (based on populations) demand within areas we don't currently deliver the service. • Successful development of relationships with PC colleagues within area we don't currently deliver the service • Confirmed access to physical resources and patient records to enable safe and effective assessment and management of patients in PC.
4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB	• Core funding is identified • There is sufficient and comparable (based on populations) demand within areas we don't currently deliver the service. • Successful development of relationships with PC colleagues within area we don't currently deliver the service • Successful permanent recruitment of additional Audiology capacity identified previously. • Confirmed access to physical resources and patient records to enable safe and effective assessment and management of patients in PC.

3.5 Options Appraisal

3.5.1 Criteria for Assessing the Option

- Additional Cost
- GP capacity released
- Secondary care capacity released (Audiology & ENT)
- Improved accessibility for important health conditions
- More appropriate secondary care referrals
- Patient Experience
- Specialist care closer to come (shorter care pathways)
- Equity of access
- In line with WG & HB strategic policy

3.5.2 Scoring framework for Assessing the Option

Relative Strengths and Weaknesses (indicative scoring, 0= weakness 4=strength).

3.5.3 Selection of Preferred Option

	Option 1: Disinvest in the Audiology in Primary Care Scheme	Option 2: Continue to deliver the Audiology in Primary Care Scheme in the existing 31 Practices (mix of GMS and HB managed Practices) identifying and allocating Core funding	Option 3: Move the current resources to HB managed Practices identifying and allocating Core funding	Option 4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB
Cost (£/year)	£280K Costs will continue medium term as Audiologists in PC are recruited on recurrent basis	£312K	£312K	£840K including some non-recurrent set up costs (£792K recurrently)
GP capacity released	0	2	2	4
Secondary care capacity released (Audiology & ENT)	0	0	0	0
Improved accessibility for important health conditions	0	2	2	4
More appropriate secondary care referrals	0	2	2	4
Patient Experience	2	2	2	2
Specialist care closer to home	0	2	2	4
Equity of access	4	0	0	4
In line with WG & HB strategic policy	0	2	2	4
Total	**6**	**12**	**12**	**26**

Recommendation for Option 4: Expand scheme to deliver the Audiology in Primary Care Scheme to all Practices across BCUHB. The next highest scoring options are to maintain the current extent of roll out.

4. The Financial Case

4.1 Value for money

Costs comparing the old and new models have been prepared with support from finance colleagues. The old model includes one GP consultation plus a Practice Nurse consultation for a proportion of patients (where earwax removal would have been required). The new model includes one consultation with the Audiologist in Primary Care (where

earwax removal would be performed as part of that initial consultation). This data indicates a £3.83/pathway saving. This is based on a 25 minute consultation with the Audiologist.

It is also worth noting that further evaluation is required looking in more detail at the average pathways of people with balance (specifically BPPV) in Primary Care and at the general Primary Care presentation rates for those people with hearing and communication difficulties.
It is reported that only 10% of people presenting with BPPV in conventional primary care services are managed using positioning manoeuvres and that most receive no treatment or receive medication. It's expected that many of these people will present to see their GP a number of times where as they could be treated successfully at their initial appointment with the Audiologist.
Similarly it is reported that people with unmanaged hearing and communication difficulties access their GP and Primary Care Services more than people without hearing and communication difficulties.

Extending the scheme across BCUHB will result in additional efficiencies through economies of scale, e.g. as travel time and expenses are reduced (these have been considered within future costs).

4.2 Financial risk

Negligible financial risk.
This innovative model of service delivery was previously untested. However, evaluation demonstrates that that this is an effective scheme that delivers within the costs initially calculated.

5. Service Management

5.1 Governance

The Primary Care Audiology Service and staff will continue to be managed across BCU as one team by the Audiology Service. The Audiology service sits within the North Wales Managed Clinical Services Directorate. There is close engagement with Primary Care teams. This model has worked well in practice – an example of effective working across management teams/structures, with audiologists benefitting from professional support and leadership within the Audiology service, yet fully engaged with PC colleagues at cluster and practice level.
As with other Audiology teams, effective team based working principles will be employed to maximise team effectiveness.

5.2 Scheme Plan – Implementation Timeline

Delivery of existing services would continue.

It's envisaged that roll-out would take place over 3 years to ensure effective engagement, safe implementation and successful recruitment of advanced practitioners. The additional funds would therefore be required over the following periods.

	Y1-2 (16-18) currently funded by investment fund(£)	**Y3 (18/19) additional required (£)**	**Y4 (19/20) additional required (£)**	**Y5 (20/21) additional required (£)**	**Total required from Y6 (20/21) (£)**
Recurrent		160,000	160,000	160,000	
Non recurrent		16,000	16,000	16,000	
Total	312,000	**176,000**	**176,000**	**176,000**	**792,000**

5.3 Monitoring Progress

A detailed roll out plan will be developed including KPIs and timescales and progress against this plan will be monitored by Audiology and reported back to HB as required.

5.4 Evaluation

Evaluation of existing services will continue to ensure a safe, effective and high quality service is delivered.
Key performance data will be collected, analysed and shared routinely at a whole service level and locally within each practice or and/or cluster. This will include:

- First point of contact proportions
- Referral rates to ENT and Audiology
- Appropriateness of onward referral
- Patients experience
- PC clinician experience

An annual evaluation report will be produced each year containing the key information listed above, including the evaluation of existing delivery and progress against rollout plans.

6. Critical Assumptions, Risk and Issues

- It is critical that core funding is identified for the scheme to continue. Evaluation demonstrates that the scheme releases GP capacity and so core funding should be identified from within Primary Care funding.
- If the decision is made to disinvest in the scheme, 5.5WTE experienced Advanced Practitioner Audiologists would be displaced. This would cause a financial risk and could adversely affect future recruitment of Audiologists to BCUHB.
- The scheme is well regarded by the public, primary care colleagues and has been commended by WG. If the decision is made to disinvest in the scheme there is a risk of significant negative public and political attention.
- Expansion plans to extend and deliver the service across BCUHB need to be phased to allow for safe and effective implementation and recruitment.

7. Conclusions and Recommendations

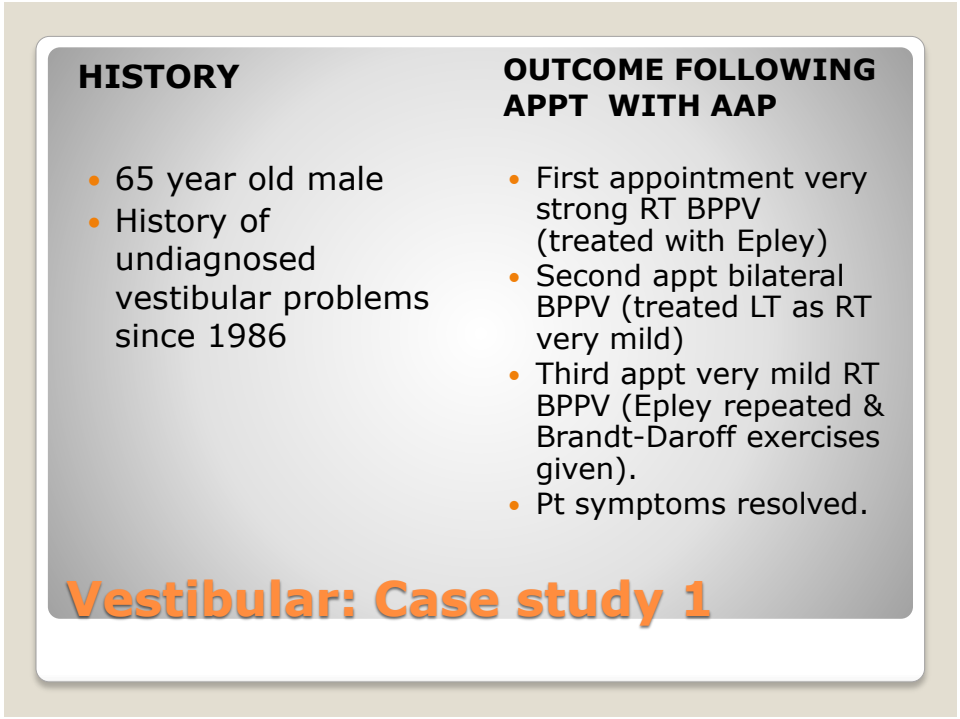
Audiology in Primary Care is an innovative scheme, removing the need for many people with hearing, tinnitus and certain balance conditions, to see their GP.

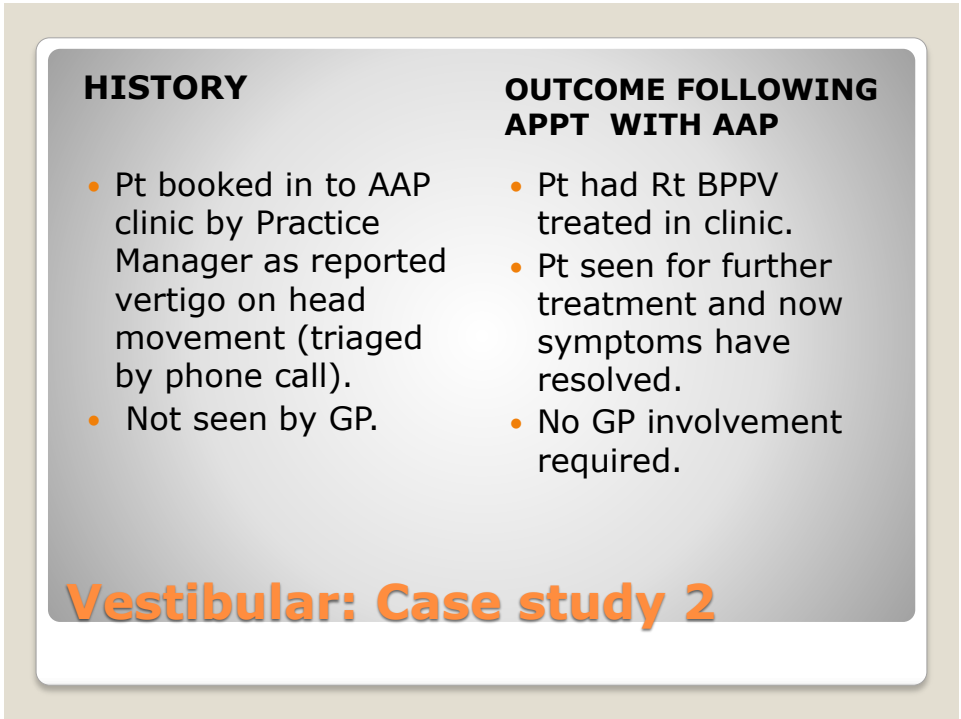
The scheme has been implemented within 31 practices over the last eighteen months and evaluation shows that Audiologist can safely and effectively take this work from GPs, thereby releasing them to see more complex conditions. It is estimated that if the scheme was extended and implemented across BCUHB more than 20,000 patients would be seen by the Audiologist in Primary Care.

Hearing, tinnitus and BPPV are important and prevalent health conditions and this scheme enables more people to get specialist advice and management sooner and closer to home.

The option appraisal within this business case identifies extension of the scheme across BCUHB as the preferred option. Core funding from within Primary Care budgets needs to be identified to enable this service, and the benefits it brings, to be continued and extended.

Appendix 1 – Case studies





Hearing: Case study 3

HISTORY

- 70 year old man with sudden drop in Rt ear hearing.
- Seen GP, reported ear feeling blocked and was prescribed Beconase spray.
- A few months later not resolved so appt booked with AAP.

OUTCOME FOLLOWING APPT WITH AAP

- Pt found to have a severe sensorineural hearing loss on the Rt and tinnitus.
- Referred to Secondary care and awaiting CT scan and hearing aid

Tinnitus: Case study 4

HISTORY

- 19 year old male
- Referred by PN
- 2yr hx of bilateral tinnitus
- Non-bothersome during day, but affecting sleep
- Can feel wax moving about in his ears and the tinnitus changes

OUTCOME FOLLOWING APPT WITH AAP

- Occluding wax removed via microsuction
- Hearing and ear exam NAD
- Reassured no red flags
- Sound therapy advice given

Appendix 2 – Letter from Karin Phillips

Karin M Phillips
Dirprwy Gyfarwyddwr- Gofal Sylfaenol
Deputy Director – Primary Care Division
Y Grŵp Iechyd a Gwasanaethau Cymdeithasol
Health and Social Services Group

To: Directors of Primary Care; Directors of Therapy

Llywodraeth Cymru
Welsh Government

9 August 2017

Dear Directors

Framework of Action for people who are D/deaf or living with hearing loss 2017-2020

I have now officially taken up my role as Deputy Director – Primary Care and I am conscious that this is my first letter in my new role.

I met most of the Directors of Primary Care in my recent 'tour of Wales'. The remaining meetings are scheduled over the next few weeks. I am grateful to Grant for arranging these meetings and to you for providing me with a lot of information and context. I met most of the Directors of Therapies in my previous role and I look forward to continuing to work with you in my new role.

I am writing to raise awareness and seek greater engagement and dissemination of the 'Framework of Action for people who are D/deaf or living with hearing loss 2017-2020', launched by the Cabinet Secretary for Health, Well Being and Sport, in May 2017.

A multi-disciplinary project board, chaired by Andrew Goodall, has been established to oversee the implementation of the recommendations. The board held its first meeting in July 2017 to agree terms of reference and will meet again in November 2017 to agree the priorities. Further details of the board's membership and terms of reference is attached at annex 1. .

This work supports the overall policy of developing more new models of care closer to home. For example Abertawe Bro Morgannwg University Health Board and Betsi Cadwaladr University Health Board are leading in the delivery of audiology services in the community, working with local clusters to test new service models. The Cabinet Secretary has visited both projects to learn how the audiology practitioners provide an open access service to patients with a variety of ear and hearing problems. He was extremely impressed to see how the new models are improving patient outcomes, access and experiences. Similar to the pacesetter projects, he expects to see all health boards, working with clusters, to develop and move similar models of care into the community, on an all-Wales basis.

For ease of reference, the Framework can be accessed via the links below:

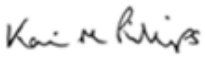
http://gov.wales/topics/health/publications/health/reports/audiology/?lang=en
http://gov.wales/topics/health/publications/health/reports/audiology/?skip=1&lang=cy

In the first instance the ask is for you to:

- disseminate the framework to your teams and clusters;
- ask clusters to reflect in their planning considerations of the key priorities for this community once agreed.

The project board looks forward to working with you. Please contact the project board secretariat to get involved with this work Philip.Reardon-Smith@gov.wales

Yours sincerely



KARIN M PHILLIPS MBE
Dirprwy Gyfarwyddwr- Gofal Sylfaenol
Deputy Director – Primary Care

Appendix 3 – Support letters from GPs

Dr Steven Jones
Dr Rose Penson
☎ (01352) 712029

Dr Jon Potter
☎ (01352) 713289

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Dr Chris Wallace
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☎ (01352) 712133

Betsi Cadwaladr
University Health Board

12th December 2017

Our Ref: CW/LM

Jane Wild
Audiology Service
Wrexham Maelor Hospital

Dear Jane,

I believe that you are the lead for primary care audiology. I am writing to give you some feedback about the experience we have had with in-house audiology.

This has been provided by Sarah Canton over the last 12 months. We have found the whole provision very valuable. We have been able to develop a working team and provided a high level of patient care. This has been particularly useful with Sarah being on site. We think that it is a service that we would like to continue. The patients have been able to receive prompt clinical service in an environment with which they are familiar. We have been able to provide a reasonable level of administrative support. Our patients and the staff have become familiar with the service, there has been an ability to direct patients to the audiologist without having to make appointments with GPs. This has allowed us to be able to concentrate on patients with more complex needs.

We wonder whether the service could be broadened to allow us to refer paediatric patients, possibly over the age of 12 with similar hearing problems.

In summary, we have had a very good service that fits with our working ethos of near patient provision of care and we as a result have been able to free up more time for ourselves to provide care to more complex patients.

Yours sincerely

Dr C Wallace

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FAX: 01745 351150

4 January 2018

FOR THE ATTENTION OF: Jane Wilds

I am writing this letter in support of the excellent Audiological service that has been provided at Kings House Surgery over the past year. Because of this service, there have been multiple benefits to us as a GP surgery, which I detail below.

1. It has improved patient access to GP, by freeing up GP appointments
2. It provides more appropriate referrals and signposting
3. Provision of better, evidence based, intervention for our patients
4. Specialist assessment and treatment for BPPV
5. Reduced waiting times overall for all related services

This service has become invaluable to us, as a practice already short of clinicians. To lose it would be extremely detrimental to our patients and us; with the loss of it having a significantly negative effect on our delivery of routine GMS.

Yours sincerely

Dr G S Arora