

*Review of
services and
technology
supply in the
Hearing
Services
Program*

Department of Health

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Hearing Services Program

September 2017

Final Report

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Executive summary

Background

Since 1947, the Australian government has provided hearing services to some of those most vulnerable in our community. Since then hearing services have expanded to cover a wider range of eligible clients under the Hearing Services Program (HSP), established through the Hearing Services Administration Act 1997 and administered by the Commonwealth Department of Health (the Department). The HSP allows its clients to receive hearing services through two program components, the Voucher Scheme (VS)¹ and the Community Service Obligations (CSO).²

The HSP plays a critical role in society and the Australian economy. At a cost of \$475.9million in the 2015-16 financial year (0.9% of the total administrative expenditure of the Department), the Voucher and CSO components ensure that clients have access to hearing support from qualified practitioners and are able to access world class hearing technology. The HSP makes a meaningful contribution to mitigating the reported \$33.3 billion cost of hearing loss to the Australian economy.³ The HSP represents a majority share of the Australian hearing services market, estimated to be approximately 68% of the measurable market in the 2015-16 financial year.⁴

By 2019-20, a proportion of HSP clients will transition across to the National Disability Insurance Scheme (NDIS). With eligibility requirements differing between the HSP and the NDIS, a whole of government view is needed on the provision of hearing services and assistive hearing technology (AHT). This is to ensure that no unjustifiable differences in pricing of hearing services and range of available devices between the NDIS and the HSP are able to distort or disrupt the hearing sector or reduce client outcomes.

The current focus on the Australian hearing sector indicates an increasing appetite for change. This has been driven by recent parliamentary inquiries in the hearing sector, consumer protection issues highlighted by the Australian Competition and Consumer Commission (ACCC) report on the sale of hearing aids, and the Professional Practitioner Bodies (PPBs) implementing a joint Code of Conduct and Scope of Practice.

Australia's ageing population will increase the demand for hearing services and AHT, potentially leading to funding pressures. Current trends evident within the VS may also add to these pressures. Specifically, total administrative expenditure between FY2012-13 and FY2015-16 has grown at an average rate of 7.1% per annum, 2.5 times the growth in client numbers (2.8% per annum over the same period). This growth has outstripped growth in broader health spending.

Certain industry practices are putting upward financial pressure on the HSP and are not necessarily leading to improved client outcomes. These practices include

- a growing trend in the take-up of partially subsidised AHT, driven by changing consumer preferences and anecdotally-supported cases of industry 'upselling pressure', and
- a shift towards a greater number of higher-priced partially subsidised AHT being provided through the HSP, with the average cost to client (in real terms) increasing.

Against this backdrop, it is timely for government to undertake a review of the VS.

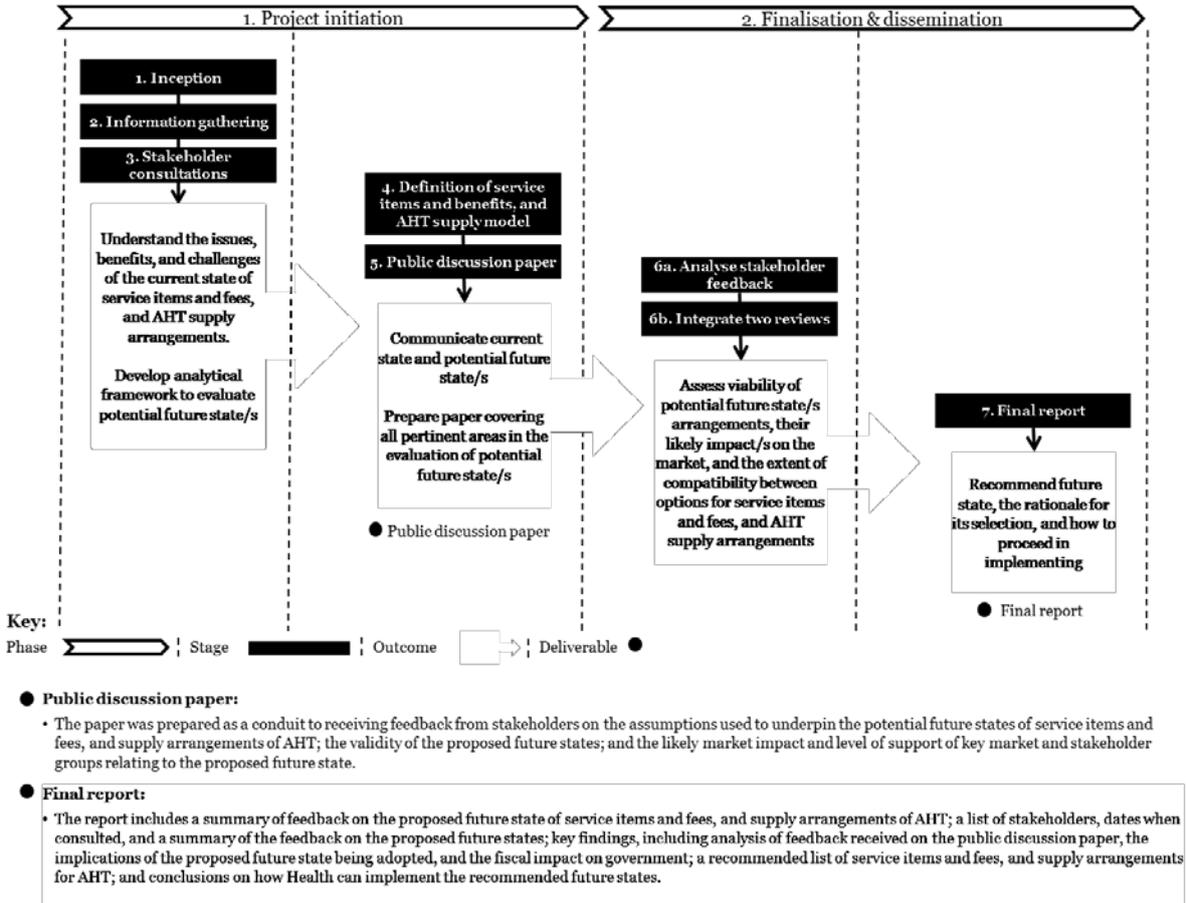
Subsequently, PwC was contracted by the Department to conduct a review of services and technology supply in the HSP, particularly as it relates to the VS.⁵

Major findings

The findings of this report are informed through extensive consultations, which included 72 stakeholder interviews (involving over 40 hours of direct contact), two online surveys with a total of 381 responses, and 37 responses to a public discussion paper. The public discussion paper, released in April 2017, outlined a range of options for alternative models of services items and fees and supply arrangements under the HSP. Stakeholders representing

government, industry, consumer groups, and PPBs participated in this consultation process. This has been complemented with research and analysis conducted during the information gathering phase of the review. Generally, the level of constructive sector engagement was high. The majority of major stakeholders recognised the strength of the current service delivery model and acknowledged the challenges facing the sector. However, opinions differed on what changes need to be made to the current service delivery model to best overcome these challenges. Figure 1 outlines the stages of the review, which began in June 2016 and concluded in August 2017 (see Appendix A for a detailed overview).

Figure 1 Approach summary, by phase and stage



The review identified 12 major findings associated with the current service delivery model. On the whole, the findings recognised there is room to improve fundamental components that contribute to the way the VS provides services and AHT. However, there was a lack of consensus around the alternative model that would be best to address the challenges identified.

The majority of stakeholders were in favour of a gradual approach to reform of the current model. There were concerns that any major reform would disrupt the hearing sector and that the challenges highlighted in the sector by the recent ACCC report and parliamentary inquiries could be better addressed through changes to the current service delivery model as opposed to moving towards a completely revamped service delivery model.

In part this stemmed from the belief that certain alternative models were too risky to implement in the Australian context. Valid questions were raised on the impact major reform could have on a relatively small health program, and how such reform would deliver substantial improvements in client outcomes or government objectives.

Findings include the following set of high level themes.

- **Finding 1** - More can be done to focus on client outcomes.
 - The need to focus on client outcomes has been noted by research as being a key component in assessing the benefit or value associated with the provision of health services.⁶
 - Focusing on client outcomes would entail a process that begins with the definition of an outcome, followed by data collection, compilation, analysis, and comparison of outcomes across peers on a national level. This has been noted through research as providing the means to identify areas for improvement in the delivery of health services.⁷
 - While the measurement of outcomes has become more commonplace in certain health settings, such as in hospitals (e.g. in-hospital mortality indicators),⁸ the hearing services market exhibits a relatively low degree of maturity in this area.
 - Responses to the public discussion paper indicate that a majority of stakeholders (including most Contracted Service Providers (CSPs), some Device Manufacturers (DMs), and all consumer groups and research institutions) agreed to the assertion that client outcomes have an important part to play in determining what support should be delivered under the HSP.
 - However, there was no consensus on how to measure client outcomes. CSPs, DMs, PPBs, and industry associations indicated that four different types of measurement instruments are commonly used. A further 16 instruments were identified through research.
 - While responses to the public discussion paper indicate that outcome measures are common in some form at the CSP level, the challenge facing the VS is how to address the inconsistent approach to the recording of data in order to capture broader trends in client outcomes at a program level.
- **Finding 2** - The current Minimum Hearing Loss Threshold (MHLT), and practices for measuring it, do not align to international definitions.
 - A MHLT sets criteria around the minimum level of hearing loss required in order for an individual to be eligible to receive a fitting of an AHT to the ear being tested. Currently, the VS sets the MHLT at 23 decibels (dB) as measured on a 3 Frequency Average Hearing Loss (FAHL) method consisting of measurements at 0.5, 1, and 2 kilohertz (kHz).⁹
 - Comparison of this MHLT definition to best practice international definitions indicates misalignment on two fronts. The MHLT does not
 - align with the World Health Organisation's (WHO's) definition of disabling hearing loss (measured on 4 FAHL), or
 - adopt the most common form of Frequency Average Hearing Loss measurement used by practitioners (4 FAHL consisting of measurements at 0.5, 1, 2, and 4 kHz).
 - In addition, there is empirical evidence to indicate that the lower the severity of hearing loss, the less likely the individual is to desire using AHT. This raises questions regarding the efficacy of the current MHLT.
 - These questions of efficacy are compounded by the possibility that the current MHLT definition may also guide the eligibility criteria to be adopted by the NDIS, particularly as the National Disability Insurance Agency (NDIA) is yet to publish its Access Guidance to define hearing as a disability in a manner measurable through conventional hearing tests.
 - State based workers' compensation schemes, also adopt different stances on measuring eligibility due to hearing loss. The State Insurance Regulatory Authority (SIRA) New South Wales (NSW) evaluates impairment through binaural hearing impairment evaluations as defined by the National Acoustic Laboratories (NAL).
- **Finding 3** - The current level of funding for services is contributing to a higher prevalence of cross-subsidisation.
 - Cross-subsidisation refers to the situation where the sale of AHT covers the losses accrued, or lack of profits derived, in the provision of hearing services.

- The way the current service delivery model funds services has drawn criticism from certain stakeholders who believe it dilutes the value of providing hearing services, increases the emphasis on AHT as the primary - and sometimes sole - solution to mitigating hearing loss, and incentivises a dependency on the provision of AHT. This view was expressed by CSPs, industry associations, and community groups.
- Combined, these factors have contributed to a reliance on cross-subsidisation, with its prevalence primarily supported by anecdotal evidence from hearing practitioners and industry associations.
- Cases of CSPs providing hearing services at cost, or at a loss, support the need to review the way services are funded in the VS.
- This is supported by benchmarking of the FY2016-17 schedule prices for services in the VS against the private market and other government programs, which indicates that the current fees are low for a range of key services. It is important to note that the benchmarking was conducted for a subset of services that could be compared on a like-for-like basis (e.g. assessment, follow-up, maintenance, rehabilitation, and client review). The complexity of the current schedule makes comparison for all items impractical. This was particularly the case with fitting services, where the bundling (e.g. fitting, in addition to rehabilitation and maintenance) makes any comparison difficult.
- The use of cross-subsidisation raises questions about whether additional services should be included in the VS. These could include
 - interpretation and translating services – currently provided by the NDIS and Worksafe Victoria (VIC). The Department of Veterans' Affairs (DVA) is currently investigating the extent to which it will support these services.
 - reimbursement for travel time – price loading for services provided to rural and remote Australia are to be applicable in the NDIS, aligned to those adopted by the Independent Hospital Pricing Authority (IHPA). Some State based workers' compensation schemes also reimburse the cost of travel.
 - The delivery of services through digital mediums – telehealth is already funded by government, including the Department through the Medicare Benefits Schedule (MBS) and DVA through its Rebates and Financial Incentives. However, this relates to telehealth service delivery, as opposed to teleaudiology specifically. The NDIS has also indicated that it supports the use of telehealth, video conferencing, or off-site supervision in its strategy for rural and remote areas.
- **Finding 4 - A greater focus on rehabilitation and support.**
 - There was clear support in the responses to the public discussion paper for increased client access to rehabilitation services, with 75% of respondents being of the view that the current rehabilitation services did not provide clients with appropriate support.
 - Most stakeholders agreed that the practitioner should have the discretion to decide the appropriate time for a client to receive rehabilitation and support services.
 - While the current schedule of services in the VS includes three items specifically for rehabilitation services, uptake of these items has been low and claiming rules have prevented clients accessing them until after being fitted with a fully subsidised AHT.
 - This raises questions about the effectiveness of rehabilitation services as they are currently delivered in the HSP. A review commissioned by the Department in 2011, which looked at the 'Rehabilitation Plus program' identified that more of a focus was needed on psycho-social and functional aspects of aural rehabilitation.¹⁰
 - There is debate about the role of rehabilitation and support services in achieving optimal client outcomes when applied in isolation, although this may also stem from the inability to consistently measure client outcomes.
 - Research shows that individuals with hearing loss receive improvements to both their mental and physical state when rehabilitation is combined with the supply of AHT.¹¹ It is likely that this reflects the finding that the success of a hearing intervention, such as an AHT, is dependent on the motivation and skill of the

individual. Motivation and skill can be improved through access to rehabilitation and support.

- Rehabilitation and support has also been shown to positively contribute to addressing the stigma attached to hearing loss by addressing feelings such as anxiety and social exclusion.
- **Finding 5** - Improving the flexibility of the service pathway.
 - Stakeholders suggested that the current schedule has complex and rigid claiming rules that limit the extent to which professional clinical judgement can be applied in the treatment of a client.
 - CSPs stated that after providing a service to a client they often spend additional time and resources referring to service claims history and voucher claiming rules. There are also concerns that the rules limit adaptability to technological advances in the delivery of hearing services.
 - A number of stakeholders also believed that a client should not have to reapply for a voucher where the client has retained their eligibility to the HSP. Instead, there should be automatic renewals every three years.
 - However, with the average age of a VS client being 79 years, automatic eligibility checks every three years may be an inappropriate undertaking. Particularly if automatic eligibility checks allow CSPs to claim a benefit for services not actually provided to the client, whether it be because the client is unable to genuinely verify the provision of the hearing service or AHT, or because the client was deceased.
- **Finding 6** - There is a need to improve the quality of information made available to clients.
 - Client knowledge of their own entitlements and rights was recognised as an area of the HSP that needs to be addressed. The majority of stakeholders indicated that more could be done to educate clients and facilitate more informed decision making on their part. This is an indication that client literacy needs to improve.
 - It has been reported that with the variety of AHT on the market, decisions around identifying which type of AHT and service is most appropriate for the individual's needs, preferences, and budget have become increasingly difficult for clients.
 - This reality is exacerbated by the lack of standardised terminology, which makes it hard for clients to differentiate marketing jargon from comparable features and capabilities.
 - Stakeholders asserted that clients should be provided with mechanisms to manage their expectations, including measuring and reporting outcomes to practitioners and understanding that while AHT may advertise certain benefits, these benefits are not necessarily achievable by all clients.
- **Finding 7** - Minimum specifications are fundamental to ensuring access to high quality AHT.
 - Stakeholders indicated that minimum specifications for AHT are one of the most important aspects of the current supply arrangements.
 - Suggestions in the public discussion paper to remove the minimum specifications were opposed by almost all stakeholders.
 - Arguments in favour of maintaining minimum specifications cited a possible decline in the overall quality of AHT available through the VS, and clients not benefitting from improvements in technology if the minimum specifications were removed.
 - However, while AHT continues to improve with the release of newer technology and a larger range of features, the minimum specifications have not been updated since 2012.
 - The Department commenced work to review the minimum specifications in 2013, but feedback from industry resulted in no amendments being made.
 - Whether the Department should continue to maintain responsibility for setting minimum specifications was questioned by a few stakeholders. Alternatives to the Department included establishing an independent expert panel or using the existing government funded bodies such as NAL, the Hearing Cooperative Research Centre (CRC), or the newly formed Health Technology (HTA) branch.

- **Finding 8** - Effectiveness of AHT schedules could be improved.
 - Schedules are adopted in the HSP as a mechanism to differentiate whether AHT are available to clients at no cost (i.e. fully subsidised AHT) or available through payment of a client contribution (known as a 'top-up' – for partially subsidised AHT).
 - A number of DMs noted the ease of adding AHT to the schedule as one of the strengths of the VS. However, incentives could be adopted to encourage DMs to retire AHT that are in very low demand or superseded by new models with improved technology.
 - Stakeholders offered a range of suggestions which may reduce the proliferation of older technology in the schedules. The most common was for the Department to automatically remove AHT after a specified period, for example five years.
- **Finding 9** - Access and types of Alternate Listening Devices (ALDs) available under the VS should be broadened.
 - The ability of a client to acquire an AHT is different depending on whether the AHT is a hearing aid, ALD, or implantable technology (e.g. a cochlear implant).
 - While non-standard AHT, which includes ALDs, make up less than 2% of all AHT sold in the VS, cumbersome processes flagged by stakeholders pose a challenge to the effectiveness of the current supply arrangements. This is pertinent because ALDs can provide improved accessibility, convenience, and functionality relative to conventional hearing aids for certain individuals.
 - While the Department has a process for acquiring non-standard AHT that are not listed on the schedules, some stakeholders suggest that the range of listed non-standard AHT could be expanded.
- **Finding 10** – Validity of the partially subsidised schedule, and its role in the perceived upselling of AHT.
 - Despite the existence of clinical guidelines and norms, analysis showed a significant divergence in the proportion of partially subsidised AHT sold in the VS on an individual provider basis. This raises questions as to the validity of the partially subsidised schedule.
 - This has led to some stakeholders, such as consumer groups and research institutions, indicating that there is some merit in decommissioning the partially subsidised schedule, which would aim to address some of the cross-subsidisation issues highlighted in the ACCC inquiry into the sales practices of the hearing aid industry.
 - It was also suggested that if the partially subsidised schedule were decommissioned, the minimum specifications of fully subsidised AHT could be raised. In practice, this would mean that the features of the fully subsidised AHT would increase to encompass some of the features currently found in partially subsidised AHT.
 - At the same time, concerns were raised that removing the partially subsidised schedule may limit the capacity for some clients to obtain an AHT which meets their specific requirements.
 - However, it should be noted that while client and clinical needs are central to some stakeholders, removal of the subsidy to the partially subsidised schedule would likely result in revenue loss to the DMs, and possibly, to a lesser extent, CSPs.
- **Finding 11** - Most government subsidised hearing services are limited to clients who acquire AHT through the VS.
 - The growing demand for partially subsidised AHT is connected to the growth in the variety of AHT easily available to clients outside the VS.
 - In initial consultations, a broad range of stakeholders noted the ability of clients to purchase good quality, lower cost AHT online and through other retailers (e.g. Costco). In some cases, the cost of the AHT was less than if the client had obtained the same AHT through the partially subsidised schedule.
 - Stakeholders had diverging views around the issue of access to AHT purchased outside of the VS. Specifically, whether clients should retain eligibility to hearing

- services offered through the VS where AHT are purchased from alternative providers who are not CSPs.
- DMs, CSPs, and industry associations expressed concern that people accessing AHT outside the VS would not be able to receive the expert support needed to correctly identify an appropriate AHT, or have it fitted in the correct manner.
 - Stakeholders pointed out that many of these issues stem from consumer literacy and information asymmetry. Clients are not necessarily aware of the drawbacks of purchasing their own AHT, as opposed to going through the VS. Conversely, the opaque nature of AHT pricing and availability of similar, or seemingly identical products, from other retailers at a substantially discounted price encourages consumers away from the VS and the advice CSPs provide.
 - The applicability of Bring Your Own (BYO) AHT has been recently addressed in the US, by the passing of a bill that mandates the US Food and Drug Administration (FDA) to create an 'over-the-counter' hearing device category for those individuals who have mild-to-moderate hearing loss.
 - With DMs being part of global supply chains and operating in multiple jurisdictions, sourcing AHT through private channels (i.e. allowing a BYO approach) would facilitate competition among CSPs in the HSP.
 - However, any approach to embed BYO principles into the VS needs to analyse the interplay between warranty and the place of purchase, given that international warranties may place a burden on the client being able to service or repair their AHT. The role of minimum specifications and AHT schedules should also be considered in light of allowing BYO principles to be embedded in the VS.
- **Finding 12** - Uncertainty around the implementation and impact of the NDIS.
 - A consistent theme evident through all stakeholder discussions and responses to the public discussion paper was the uncertainty around the NDIS and how its implementation would impact stakeholders. This was especially evident among providers of hearing services.
 - While key aspects of the NDIS Access Guidance for hearing is still being finalised, existing information around potential pricing, accreditation, and operations was not consistently understood by stakeholders.
 - While it is outside the scope of this review to directly address communications surrounding the NDIS and its hearing program, it should be recognised that this uncertainty is likely to have an influence on stakeholder views and their appetite for major reform or changes in the VS over the short term.

Recommendations

A range of options for changes to the VS were canvassed in the public discussion paper. These ranged from retaining the status quo through to large scale reform that would involve fundamentally shifting the way in which hearing services and AHT are provided to clients.

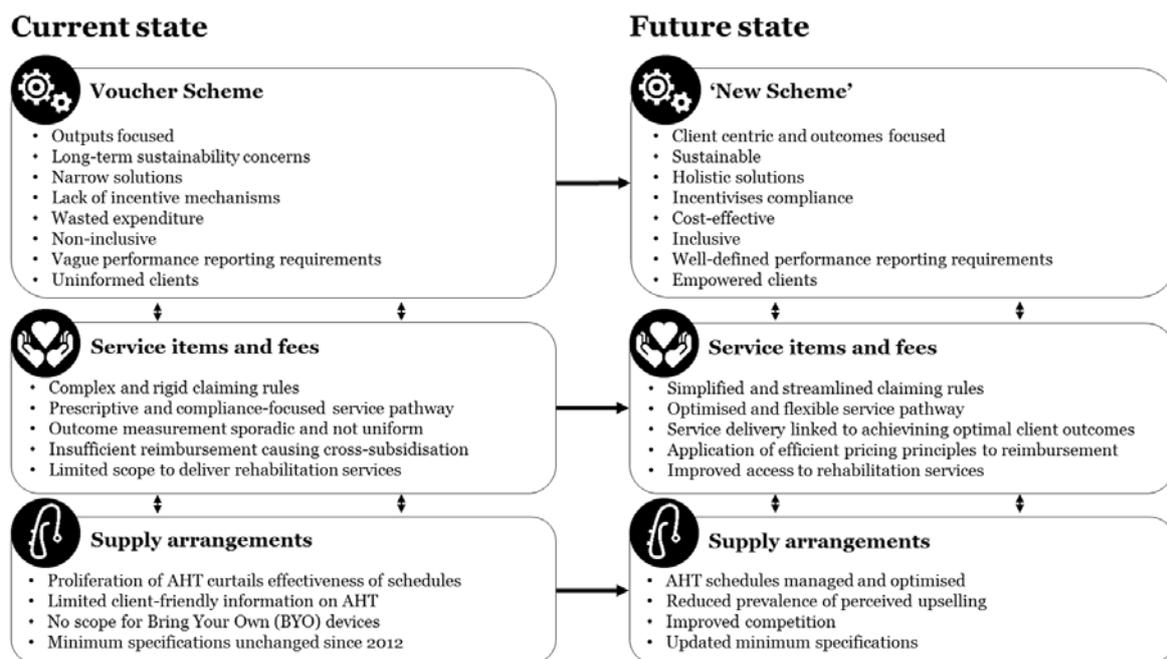
The findings of this review indicate that the major opportunities for the VS can be achieved through altering the current schedules of services, prices, and clauses in the Deed of Standing Offer (the 'Deed') and contract, rather than through adoption of an entirely different model.

The risks and transition costs associated with moving towards a new model are high and potentially not justified given the current performance of the VS, service coverage to clients, and sentiment expressed by stakeholders.

The principles and characteristics of the current VS and the opportunities for the scheme to move towards the recommended future state are shown below in Figure 2. The subsequent recommendations outline the changes needed to move towards this future state. The implementation plan contained within this report provides a road map of how to achieve this (see Section 5.5).

Recommendations are broken down into those relating to the VS, those relating to service items and fees, and those relating to supply arrangements.

Figure 2 Current vs Future state



Scheme level recommendations

- **Recommendation 1** - Accelerate the transition towards an outcomes focused model.
 - It is recommended that the Department, where possible, accelerate the transition towards an outcomes focused future state.
 - Recognising there is no agreed approach to measuring client outcomes and that industry needs to play a leading role in determining industry wide standards, the Department should accelerate efforts and consultation with industry participants to
 - define optimal clinical outcomes for clients
 - set a standardised approach to measuring outcomes, and
 - determine principles to facilitate comparison of outcomes across client cohorts and CSPs.
 - This acceleration is especially pertinent given that industry is currently unable to comparably evaluate whether an optimal client outcome has been achieved. This is

indicated by the range of different measurement instruments currently used by practitioners, their lack of comparability, and the lack of consensus around what measurement instrument is best-suited to identifying whether clinical outcomes are being met.

- Accelerating the transition towards an outcomes focused model would increase the maturity level surrounding how to evaluate the effectiveness of hearing interventions.
- **Recommendation 2** - Review the MHLT
 - The MHLT should be formally reviewed with the intention to investigate
 - aligning the MHLT with international practice definitions of hearing loss
 - mandating the measurement and reporting of hearing loss via international and industry practice (4 FAHL), and
 - applying the outcomes of such a review to prospective clients.
 - The review would allow the scheme to incorporate a more salient approach to measuring and reporting hearing loss levels. It also targets the fitting of AHT to clients who have a level of hearing loss that would benefit from a hearing aid. This would minimise the propensity for inefficient spending associated with clients receiving fitting services that are undesired and AHT that they do not use.
- **Recommendation 3** - Improve the information about hearing services and AHT, and dissemination of this information to clients in the VS
 - To address consumer hearing literacy concerns and enable clients to be more active in achieving optimal clinical outcomes, the VS should provide client-friendly information that facilitates the objective comparison of AHT and services available through the VS.
 - Providing client-friendly information would empower clients by giving them access to information that contributes to better purchasing decisions. It also acts as a mechanism for CSPs to reconsider the way they are approaching the pricing and provision of AHT. It would embed competitive dynamics through increased information transparency in aspects of the hearing services market that currently exhibit limited publicly available information.
 - As a result, the likelihood of sub-optimal selection and allocation of AHT would be reduced.
- **Recommendation 4** - Investigate the scope and cost of providing a range of additional services through the VS.
 - There is a range of hearing services which currently fall outside the scope of the VS. It is recommended that the Department investigate the scope and cost of providing a range of additional services that could positively contribute to achieving optimal client outcomes.
 - This includes
 - interpreting and translating services for clients from non-English speaking backgrounds
 - teleaudiology services for rural, remote locations, or where clients would benefit from access through a digital medium, and
 - the application of a 'home-visit' loading to cover travel costs.
 - In all these cases, the data around the cost associated with introducing these additional services is limited or does not exist, making it difficult to accurately model the actual financial impact of implementation. Some information does exist on the cost to provide translating and interpreting services. However, no conclusive study has looked at demand forecasts for these services in the VS.
- **Recommendation 5** - Change the name of the VS
 - Changing the name of the VS is consistent with the shift towards an outcomes focused future state. It would allow the scheme to move away from the notion that it is the voucher itself that provides the benefit, instead of the appropriate and timely delivery of hearing services and provision of AHT to motivated clients who are willing to address their hearing loss.

- From a behavioural stand point, changing the name of the scheme would minimise the current perception that all benefits of a voucher are to be used, regardless of the impact they have on achieving optimal client outcomes.

Recommendations specific to service items and fees

- **Recommendation 6** - Adopt the simplified and unbundled model for the schedule of service items
 - It is recommended that a simplified and unbundled schedule of service items be adopted to simplify the service pathway, reduce administrative burden, mitigate the prevalence of wasted expenditure, and highlight the role that hearing services play in achieving optimal client outcomes.
 - This would be achieved by ensuring that services are received by those clients who most need them, streamlining the claiming rules, and providing a means to delay the provision of an AHT where it is clinically appropriate.
 - This recommendation consists of three broad changes relating to the
 - number of service items (reduced from 48 to 4, with fitting and maintenance having variants dependent on whether they relate to monaural or binaural situations)
 - service delivery pathway (catered to assessing the readiness or need to delay the provision of an AHT, where appropriate), and
 - claiming principles (embedded with an increased degree of flexibility).
 - While it is recognised that AHT is the primary intervention to deal with hearing loss, simplifying and unbundling of services could allow rehabilitation and support to have a more prominent role in the VS. This is supported by the findings of the 'Review of the Rehabilitation Plus program' and its recommendation to increase the focus on psycho-social and functional aspects of aural rehabilitation.¹²
- **Recommendation 7** - Adopt a new pricing structure for the simplified and unbundled model of service items
 - Incentivising the provision of hearing services, by increasing the benefit claimable by CSPs, would work to limit the number of hearing services that are currently reported as being provided at a loss. The finding that a range of hearing services in the VS were priced at below market values has informed the increase in the new pricing structure.
 - For the Department, it helps to limit the sources of wasted spending by identifying those clients who are not ready for an AHT, and providing them with an alternative pathway that can delay acquisition of an AHT, where appropriate. A stronger price signal for rehabilitation reflects this, leading to less fittings for clients who are not ready for an AHT. This is particularly valid, where the client has limited motivation or willingness to use the AHT. In this instance, they are better suited to undergo hearing rehabilitation and support.
 - The market driven prices align relatively closely to the currently maximum NDIS hourly rate of \$175.57. While assumptions have been made (and validated by the Department) about the length of each of these new services, the broad alignment with the NDIS means that there should be limited arbitrage or distortions created in the market by financially incentivising the provision to one group of clients over another.
 - Optionality exists within this pricing schedule to specify set units of time for each service item. For example, rehabilitation and support, and maintenance may be specified within 30 minute blocks, rather than one single block. Depending on the needs of the client, this could be taken as two 30 minute blocks for more complicated maintenance or rehabilitation, or one 30 minute block for simple maintenance or ongoing support.
 - For the provision of services to rural and remote areas, it is recommended that targeted policies or practices be adopted that look to leverage current CSO and future NDIS activities in these areas. These should be developed on a case-by-case basis. Analyses of current CSP locations suggest a good level of coverage in most

regional and rural areas of Australia (representing close to 50% of all permanent and visiting sites in FY2015-16). Furthermore, current CSO arrangements, and claimable items in the MBS, provide services to the most vulnerable clients in areas where there is insufficient coverage.

- It is recommended that there be no explicit difference in pricing based on the qualification of the practitioner. The Scope of Practice for qualifications within the industry is determined by the respective PPBs. Pricing should be focused on the specific service or outcome received by clients under this Scope of Practice.

Recommendations specific to supply arrangements

- **Recommendation 8** - Remove the subsidy applicable to partially subsidised AHT
 - This recommendation is informed by the VS representing a safety net that ensures the vulnerable and most in need of the Australian community has access to optimal hearing outcomes as determined by the government in line with recommendation 1.
 - As a result, it can be argued that it is not the role of the VS to subsidise specific client choice if such clients seek access to features or technology greater than the government deems sufficient to achieve an optimal hearing outcome.
 - When implemented alongside recommendations 3 and 9, a situation is created whereby clients are more informed and able to have free access to improved AHT functionality, creating a financial incentive to acquire fully subsidised AHT, which can counterbalances potential efforts to 'upsell'.
 - This recommendation does not limit the range of AHT that clients can choose to purchase under the VS. However, it does limit the AHT that the government will pay for under the VS. This is done by retaining the partially subsidised schedule, albeit under a new name (see recommendation 13), in order to reassure clients of the quality and safety of AHT available through the VS.
- **Recommendation 9** – Review the minimum specifications
 - The Department should engage in a review of the minimum specifications applicable to fully and partially subsidised AHT available through the VS. In doing so, the Department will be responding to observable industry and client trends that have indicated an increasing propensity to consume partially subsidised AHT.
 - In determining an appropriate range of minimum specifications, it is advised that a Standing Committee be set up with members representing subject matter experts, government, and industry. This will expedite the process of transitioning towards an implementable set of minimum specifications.
 - With Recommendation 8 advising the removal of the subsidy for AHT on the partially subsidised schedule, the broader savings across the VS should be considered to facilitate the expansion of features available under the fully subsidised schedule.
- **Recommendation 10** - Investigate the viability of including cost recovery levies
 - It is recommended that the viability of implementing cost recovery levies be investigated by the Department to improve the effectiveness of the AHT schedules, introduce price signals, and fund greater device information being provided to clients.
 - Any investigation should consider the regulatory burden associated with imposing the levies, and compare this burden to the benefits derived from better informing clients and incentivising DMs to keep the AHT schedules up-to-date.
 - As part of this process, the Department would need to undertake costings that identify the administrative outlay associated with monitoring the AHT schedules.
- **Recommendation 11** - Implement additional AHT listing rules
 - Implementing additional listing rules would improve the effectiveness of the schedules by setting age, usage, service requirements, and other disclosure requirements for AHT to remain listed.
 - This aims to incentivise DMs to keep the schedules up-to-date, while also improving the value clients and other parties draw from sourcing AHT information from the schedules.
 - These rules would be included in compliance requirements in the Deed.

- **Recommendation 12** - Mandate the disclosure of the price and features of AHT
 - Improving the ability of clients to make informed decisions is vital to achieving optimal client outcomes. Amending the Deed with DMs to mandate the disclosure of price and features above the minimum specifications will improve the transparency of information around how prices vary across sets of features and brands.
 - Disclosure of this information will also cultivate competition by ensuring that clients and CSPs are better able to compare AHT through categories that are aligned with those standardised through the minimum specifications.
- **Recommendation 13** - Rename the AHT schedules
 - Renaming the AHT schedules would move away from the current focus on the subsidy status of AHT as the predominant characteristic of emphasis.
 - It would allow the scheme to shape the way clients conceive of AHT by **highlighting alternative characteristics in line with minimum specifications**, which would be better aligned with an outcomes focused future state, as described in recommendation 1.

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List of abbreviations

Abbreviation	Definition
ABC	Australian Broadcasting Corporation
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AHT	Assistive Hearing Technology
ALD	Assistive Listening Device
ARL	Acoustic Research Laboratory
ARTG	Australian Register of Therapeutic Goods
ASGS	Australian Statistical Geography Standards
AT	Assistive Technology
BiCROS	Bilateral Contralateral Routing of Signal
BTE	Behind the Ear
BYO	Bring Your Own
CAL	Commonwealth Acoustic Laboratories
CCG	Clinical Commissioning Group
CIC	Completely-in-the-canal
COSI	Client Oriented Scale of Improvement
CPI	Consumer Price Index
CPT	Current Procedural Terminology
CRC	Cooperative Research Centre
CROS	Contralateral Routing of Signal
CSO	Community Service Obligation
CSP	Contracted Service Provider
dB	Decibels
DM	Device Manufacturer
DoF	Department of Finance
DRG	Diagnosis-related Groups
DSS	Department of Social Services
DVA	Department of Veterans' Affairs
EPI	Efficient Price Impact Model
ERC	Expenditure Review Committee
EU	European Union
FAHL	Frequency Average Hearing Loss
FDA	US Food and Drug Administration
FY	Financial Year
GP	General Practitioner
GST	Goods and Services Tax
HCIA	Hearing Care Industry Association
HSO	Hearing Services Online
HSP	Hearing Services Program
HTA	Health Technology Assessment
ICT	Information and Communications Technology
IHPA	Independent Hospital Pricing Authority
IOI-HA	International Outcome Inventory of Hearing Aids
ITC	In-the-canal
ITE	In-the-ear
kHz	Kilohertz
MBS	Medicare Benefits Schedule
MHLT	Minimum Hearing Loss Threshold

NAL	National Acoustic Laboratories
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NHS	National Health Service
NSW	New South Wales
NPP	New Policy Proposal
NSD	Non-standard Devices
NZ	New Zealand
OBPR	Office of Best Practice Regulation
OHS	Office of Hearing Services
OPC	Office of Parliamentary Counsel
PHN	Primary Health Network
PPB	Practitioner Professional Body
PwC	PricewaterhouseCoopers Australia
QLD	Queensland
RAP	Rehabilitation Appliance Program
RIS	Regulatory Impact Statement
RoAHT	Review of the supply of Assistive Hearing Technology
RoSIF	Review of Service Items and Fees
SA	South Australia
SIRA	State Insurance Regulatory Authority
TGA	Therapeutic Goods Administration
TIS	Translating and Interpreting Services
UK	United Kingdom
US	United States of America
VIC	Victoria
VS	Voucher Scheme
WA	Western Australia
WHO	World Health Organisation

1. The review of services and technology supply in the Hearing Services Program

1.1 Purpose of the review

PwC was contracted by the Department of Health (the 'Department') on 17 June 2016, later revised on 20 December 2016, to conduct a review of services and technology supply in the Hearing Services Program (HSP), particularly as it relates to the Voucher Scheme (VS), a component of the HSP.^{xiii}

The review sought to support a whole of government approach to the provision of hearing services and assistive hearing technology (AHT), ensuring no unjustifiable differences in pricing between the National Disability Insurance Scheme (NDIS) and the HSP which would distort or disrupt the hearing sector, if implemented.

The recommendations of the review seek to evaluate alternative service delivery models that could support improved client outcomes, business processes, reduce administrative burden, and provide better value for money for stakeholders.

Importantly, the aim of this review is not to reduce the costs of, or demand for, the VS. In fact, the aim is to ensure that those who are eligible for assistance receive the appropriate support. However, the review was to be informed by emerging trends, which, if left unaddressed, may affect the long-term sustainability of delivering the HSP's objectives. In addition, the review considered opportunities, which may exist, to redistribute the current funding envelope to provide a range of different supports, or a better balance of supports to clients.

1.2 Scope of review

As part of the review, PwC was to

- develop a list of compatible hearing service items and fees under the VS and the NDIS
- consider alternative service and payment models which may better support client outcomes, improve business processes, and reduce the administrative burden on providers and the Department
- develop an efficient price model to test a comparable list of service items and fees under the VS, post 2018-19. This may also inform the National Disability Insurance Agency's (NDIA's) development of fee structures for hearing services in the NDIS
- conduct an analysis of the benefits and challenges inherent in the current AHT supply model, and
- consider whether other supply models may better support client outcomes, business processes, reduce administrative burden on the Department, and provide better value for money for government.

The following areas are outside the scope of the review

- pricing of AHT
- eligibility criteria for the HSP, and
- efficacy and potential minimum specifications of AHT for a new supply model.

The review was to be informed by a range of factors, which included

- the need to maintain a healthy, competitive, viable hearing industry
- any other hearing related reimbursement programs (e.g. the Medicare Benefits Schedule (MBS) and State based workers' compensation schemes)
- comparative supply models for AHT in other countries and other hearing related reimbursement programs in Australia
- the NDIA's Assistive Technology (AT) strategy

- the additional cost of service delivery to rural and remote areas provided for under the NDIS and delivered by Australian Hearing for the Community Service Obligation (CSO) clients falling under the HSP
- the justification for different service items, pricing, and AHT between the NDIS and the HSP, and the CSO and VS, and
- the potential for including 'Bring Your Own' (BYO) AHT in the HSP.

1.3 Review process

The review process involved the application of contemporary social research methods (see Appendix A), extensive consultations with stakeholders representing government, industry, consumer groups, and Professional Practitioner Bodies (PPBs), the release of a public discussion paper, and this final report.

Information was derived from comprehensive research informed by scope requirements, departmental data on the HSP, fiscal impact modelling, 72 stakeholder interviews (involving over 40 hours of direct contact), two online surveys with a total of 381 responses, and 37 responses to the public discussion paper.

1.4 Structure of this final report

The structure of the final report is catered to first provide the necessary context to understand hearing loss, the Australian hearing services market, the HSP, and the sustainability challenges facing the HSP. These aspects are captured in the background (see chapter 2). The background also includes information around the NDIS and recent parliamentary inquiries around hearing.

Findings, identified through information derived from the sources aforementioned, are discussed in chapter 3. The findings have been grouped under the major themes identified, which present a range of challenges to the current service delivery model of the HSP. The findings place a particular emphasis on the VS.

After a discussion of the findings, an analysis of comparative models of hearing services and AHT supply is presented, and compared to the current approach adopted by the VS. Viable alternative models to the current approach (i.e. the status quo) are subsequently nominated for both hearing services provision and AHT supply (see chapter 4).

Recommendations, informed by the findings and analysis of alternative models, are grouped according to whether they apply to the VS as a whole, the provision of hearing services, or the supply of AHT (see chapter 5). Analysis of the fiscal impact, associated with modelled recommendations, are available at section 5.4. A high-level implementation plan and its associated risks also form part of the recommendations (see section 5.5).

2. Background

2.1 Hearing loss in Australia

Hearing loss affects one in seven Australians and is expected to rise to one in five by 2060, in part due to Australia's ageing population.^{xiv} It is an impairment that can affect people of all ages to varying degrees. As many as 12 children per 10,000 are born with moderate or greater hearing loss, while 23 children per 10,000 will require hearing aids by the age of 17.^{xv}

However, age is also a large determinant of hearing loss, with over half of Australians aged 60 years or older experiencing some form of hearing impairment.^{xvi} Regardless of age, inadequate hearing care is known to drastically reduce a person's everyday functioning ability, communication, social participation, and quality of life.^{xvii}

Hearing loss has economic ramifications as well. The total cost of hearing loss was estimated to cost the Australian economy \$33.3 billion per annum in 2017.^{xviii} Lost wellbeing was the largest contributor at \$17.4 billion, followed by loss of productivity (\$12.8 billion). Direct costs to the health system (\$881.5 million) represented less than 3% of the total cost.^{xix}

Measuring the level of hearing loss is important in identifying the range of possible interventions, and is determined through a hearing test provided by a qualified practitioner, such as an audiologist or audiometrist. The test identifies the level of hearing loss, which can be mild, moderate, severe, or profound. The level and type of hearing impairment will determine the method of intervention necessary.^{xx}

Because of the considerable impact hearing loss has on individuals and the broader economy, the Australian government invests in providing care for affected individuals through a range of government initiatives, the largest of which is the HSP.

2.2 The Australian hearing services market

A vibrant industry exists within Australia to serve the needs of those with hearing loss, which is estimated to represent less than 6% of the global hearing aid market.^{xxi} The size of the Australian hearing services market reflects the total revenues generated through the provision of hearing services (e.g. assessment, fitting, audiological case management, rehabilitation, and maintenance) and AHT, excluding Assistive Listening Devices (ALDs). Revenues of the Australian hearing services market are split according to whether they are sourced through public programs (i.e. funded by government) or the private market (see Table 1).^{xxii}

At a high level, the market size and characteristics can be understood in three segments

- VS – a component of the HSP that provides subsidised hearing services and AHT to eligible clients through 280 Contracted Service Providers (CSPs), including Australian Hearing, and 13 Device Manufacturers (DMs).^{xxiii} The VS serves eligible clients who represent predominantly pension concession cardholders. Services and AHT can be provided at one of 2,973 sites across metropolitan, regional, and rural/remote Australia. The VS is estimated to service 60.5% of the hearing services market in Australia in FY2015-16.^{xxiv}
- CSO – a component of the HSP that provides subsidised hearing services and AHT and is delivered by Australian Hearing.^{xxv} Eligible clients for this service include individuals under 26 years of age, those with complex hearing, those living in remote areas, and individuals who are Aboriginal and Torres Strait Islander. The CSO represented a 7.8% share of the market in FY2015-16.^{xxvi}
- Private market – customers pay for services and AHT at their market price, with services and AHT provided by private market participants, some of which are CSPs in the VS. The private market is estimated to service 31.7% of the market in FY2015-16.^{xxvii}

While some government supported programs also allow access to hearing services, such as claimable items on the MBS and State based workers' compensation schemes, only limited

information around the revenues derived from the provision of these services could be found. These programs have been excluded from the market sizing of hearing services. Table 1 below summarises the estimated size of the Australian hearing services market. ^{xxviii}

Table 1 Size of the Australian hearing services market^a

Segment	FY2011-12 market share	Estimated FY2015-16 market share ^b
VS	65.6%	60.5%
CSO	7.2%	7.8%
Private market	27.2%	31.7%
Total	100%	100%

Source

KPMG and Australian Hearing.

Notes

- a. Totals may not sum due to rounding.
- b. It is important to note that there is limited publicly available information to quantify the size of the Australian hearing services market. However, a 2012 study by KMPG adopted a bottom-up market sizing approach, which was tested with Australian Hearing and accepted by the Department of Human Services.
- c. Estimated size of the Australian hearing services market in FY2015-16 is based on the forecasted total revenue as identified by KMPG for FY2015-16 in their report released in 2012.

Hearing services provided through the VS are dominated by a small number of major players. The 10 largest CSPs (as measured by volume of services provided) represent 82.5% of total services in FY2015-16, with the largest two accounting for over 50% of market share. Australian Hearing was the largest CSP, representing almost one-third of all hearing services provided (see Table 2).

Table 2 Largest 10 CSPs by volume of services provided to financially active clients (FY2015-16, by payment year)

Name of CSP	Financially active clients serviced (FY2015-16, % of total)
Australian Hearing	31.1%
National Hearing	21.1%
Oticon Australia	9.4%
Sonic Innovations	6.1%
Active Hearing	4.7%
Hearing Retail	4.1%
Bay Audio	2.8%
Attune Hearing	1.4%
Neurosensory	1.1%
Southern Hearing Investments	0.7%

Source

Department of Health and PwC Analysis.

AHT supplied to the Australian market is dominated by global players, reflecting the trend of consolidation in the global hearing aid industry. ^{xxix} As such, most AHT supplied to the Australian market are sourced from a limited number of DMS, which include

- William Demant Holdings
- Sonova
- Siemens
- ReSound
- Starkey, and
- Widex. ^{xxx}

Estimates made by William Demant Holdings suggest that in the 2011-12 financial year, Australia consumed between 1.25 million and 1.38 million AHT, ^{xxxi} estimated to represent

approximately 3% of global hearing aid sales.^{xxxii} This number is expected to be larger for the 2016-17 financial year. However there is limited publicly available information to support this assertion or validate the estimate made by William Demant Holdings.

Australia also exhibits one of the world’s highest penetration rates, meaning that a large percentage of individuals who are hearing impaired are accessing AHT. Penetration rates were estimated to be in the order of 38% in the 2011-12 financial year.^{xxxiii} Again, this number is expected to be larger in the 2016-17 financial year. However no publicly available information can validate this assertion.

Within the VS, a small number of DMs dispense almost all AHT to eligible clients. In the FY2015-16, the 10 largest DMs (as measured by AHT dispensed) represented 99.9% of all AHT acquired by clients. The largest of these was Sivantos, capturing approximately one-third of the total market for AHT in the VS (see Table 3).

Table 3 Largest 10 DMs based on number of AHT dispensed in FY2015-16

Device Manufacturer	Number of AHT	% of total AHT
Sivantos	120,406	31.6%
GN Resound	87,741	23.0%
Oticon Australia	56,918	14.9%
Sonova Australia	47,739	12.5%
Widex Australia	21,279	5.6%
Starkey	19,000	5.0%
Bernafon	13,120	3.4%
Sonic	12,897	3.4%
Sennheiser Australia	1,786	0.5%
Word of Mouth Technology	349	0.1%

Source

Department of Health and PwC Analysis.

There are also indications of vertical integration in the Australian hearing services market with some CSPs being part of the same ownership structure as DMs. This is supported by VS data that indicates that firms such as Oticon Australia are present in both the 10 largest CSPs and DMs. As trading names differ between CSPs and DMs, the extent of vertical integration is difficult to measure. It is suspected that vertical integration is common place in the market, as attested by anecdotal evidence.^{xxxiv} Stakeholder feedback, anecdotal reports, and recent government reports (including the Australian Competition and Consumer Commission (ACCC)) all support this and suggest consolidation through vertical integration is becoming common place.^{xxxv} However, there is limited publicly available information to verify such a claim.

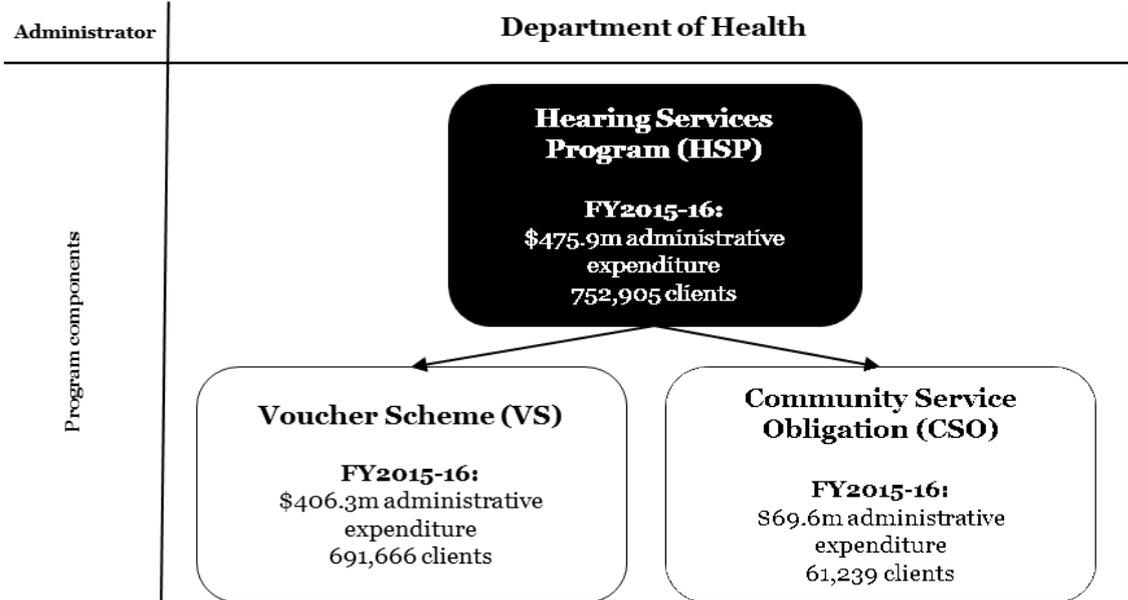
2.3 The Hearing Services Program

The HSP, managed and administered by the Department, provides eligible Australian citizens and permanent residents with access to hearing services that aim to reduce the incidence and consequences of hearing loss in the Australian community by providing access to high quality hearing services and devices.^{xxxvi}

The HSP plays an important role in ensuring that 752,905 (FY2015-16) of the most vulnerable members of the community have access to hearing services and technology, with the aim of improving their quality of life.^{xxxvii} However, within the overall Commonwealth Health budget, the HSP makes up a small proportion of total funding. Annual administrative expenditure in FY2015-16 totalled \$475.9 million (including ordinary appropriations), representing approximately 0.9% of the total Commonwealth Health administrative expenditure of \$55.8 billion.^{xxxviii}

There are two components administered by the HSP. The VS caters for predominantly pensioner concession cardholders, while the CSO caters for those with more complex hearing loss (see Appendix B). In FY2015-16, the VS serviced 691,666 clients with an administrative expenditure of \$406.3m, while the CSO serviced 61,239 clients with their annual appropriation of \$69.6m (see Figure 3).

Figure 3 Program components of the Hearing Services Program



Source

Department of Health and PwC analysis.

As part of the HSP, eligible clients are able to access government subsidised hearing services such as assessment, fitting, rehabilitation, audiological case management, and maintenance. Clients are also able to access fully or partially subsidised AHT (e.g. hearing aids, ALDs), and implantable technology such as cochlear implants), accessories (e.g. batteries), and associated services (e.g. repairs).^{xxxix}

The range of hearing services and AHT, and the associated benefit entitlement, differs depending on whether the client is receiving support through the VS or the CSO. While both these components sit under the umbrella of the HSP, entry criteria differs between the two streams (see Appendix B).^{xl}

2.3.1 History of the government subsidised hearing services

The Australian government first provided subsidised hearing services in 1947, as a response to the high rate of hearing loss evident in World War II Veterans and children born during the rubella epidemic of the 1940s.^{xli} The services offered resembled an early version of what is now known as the CSO.

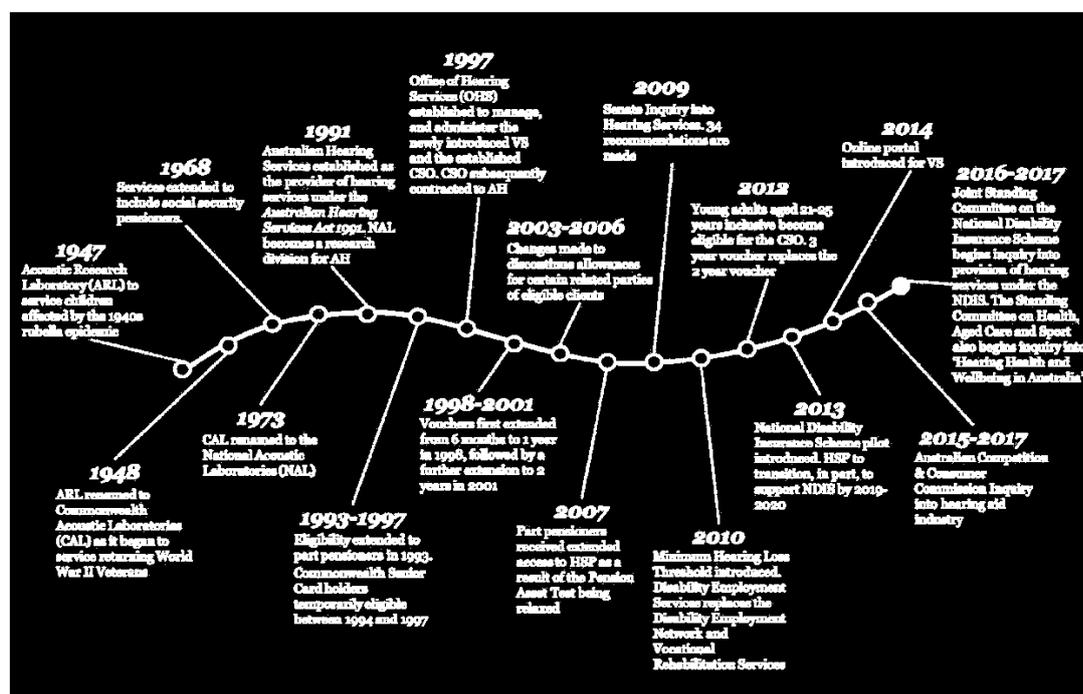
Since then, government support has developed to reflect the social and economic realities of the time (see Figure 4), amending eligibility and leveraging technology to ensure access to hearing interventions, ensure compliance, and adapt the form of information dissemination. This includes the HSP and its two components (i.e. VS and CSO).

Under the HSP, established in 1997, the duties of the Department involve

- provision of program eligibility confirmation services and support
- investigating and resolving complaints
- providing information on the location of sites and practitioners
- undertaking contract development, compliance checks and audits, management and support across a range of DMs, CSPs, and agencies
- supporting the interface between the HSP and the NDIS
- providing advice to Ministers on strategic policy to support the aims of the HSP, and

- funding research that focuses on strategies to prevent hearing loss or lessen its impact.xlii

Figure 4 History of the HSP



Source

Department of Health and PwC analysis.

2.3.2 Voucher Scheme

The VS, established and governed by the *Hearing Services Administration Act 1997*, provides hearing services and AHT to voucher-holders (i.e. eligible clients) through CSPs that have been accredited by the Department. The primary legislation mentioned above presents mandatory requirements for CSPs wishing to service eligible clients. Subordinate legislation is also applicable to the VS, determining rules of conduct, qualification requirements for practitioners, eligible classes of persons, and the rules around using vouchers (see Table 4).

Table 4 Subordinate legislation surrounding the VS xliii

Legislative instrument	Purpose
Hearing Services Rules of Conduct 2012	Rules set requirements and standards around how hearing services are provided by CSPs to eligible clients Set qualification requirements for hearing practitioners in the delivery of clinical hearing services
Hearing Services (Participants in the Voucher System) Determination 1997	Establishes classes of eligible persons Determines types of hearing services available to voucher-holders
Hearing Services Voucher Rules 1997	Rules established around applying for, issuing, revalidating, and using a voucher
Hearing Services (Eligible Persons) Determination 1997	Establishes eligible persons
Hearing Services Providers Accreditation Scheme 1997	Provides for accreditation of entities to prove capacity to service clients at a specified level and range of hearing services

Source

Department of Health.

The VS does not operate under a fixed appropriation funding model. This means that its annual administrative expenditure is variable year-to-year, depending on the number of hearing services and AHT provided to clients and claimed by CSPs.^{xliv}

The VS facilitates a market-based service delivery model. This means that the VS provides industry participants, such as CSPs and DMs, with the necessary flexibility to determine appropriate commercial arrangements in transactions between them. This includes the range and brands of AHT supplied to CSPs, and the wholesale cost payable by the CSP. This has allowed 280 CSPs to service the VS through over 2,973 sites accessed across metropolitan, regional, and rural/remote Australia in FY2015-16 (see Table 5).

Table 5 VS sites used in FY2015-16, by location and type^{xlv}

Type of site	Location			Total
	Metro	Regional	Remote	
Permanent Sites	815	335	10	1,160
Visiting Sites	872	880	61	1,813
Total	1,687	1,215	71	2,973

Source

Department of Health, ABS cat. no. 1270.0.55.006, and PwC analysis.

Notes

Analysis of sites by remoteness areas based on the ABS’s Australian Statistical Geography Standards (ASGS) 2011.

While the service delivery model has promoted competition within the VS, the Department has implemented compliance mechanisms to ensure that this flexibility also aligns with government legislation, VS rules, and client expectations around accessing hearing services and AHT. These mechanisms come in the form of a contractual arrangement between the Department and CSPs,^{xlvi} and a Deed of Standing Offer (the ‘Deed’) between the Department and DMs.^{xlvii}

The Department only provides payment to the CSP for services and AHT provided to eligible clients and does not directly pay DMs for the wholesale cost of AHT. Therefore, these compliance mechanisms help to apply appropriate sanctions and consequences for inadequate performance of duties, as stated in the risk-based approach to monitoring HSP compliance (known as the Compliance Monitoring and Support Framework).^{xlviii}

The contract with CSPs primarily sets out the terms and conditions under which a service provider is taken to be a CSP in the VS, within the meaning of section 20 of the *Hearing Services Administration Act 1997*. The contract describes requirements around the

- provision of services
- payments to CSPs
- reimbursements by CSPs
- taxes, duties, and government charges
- administration matters
- information privacy and confidentiality
- subcontracting arrangements
- indemnity and insurance requirements
- breach and termination
- disclosure of information, and
- dispute resolution matters.

The Deed with DMs focuses on regulating the supply of AHT, and enables the Department to

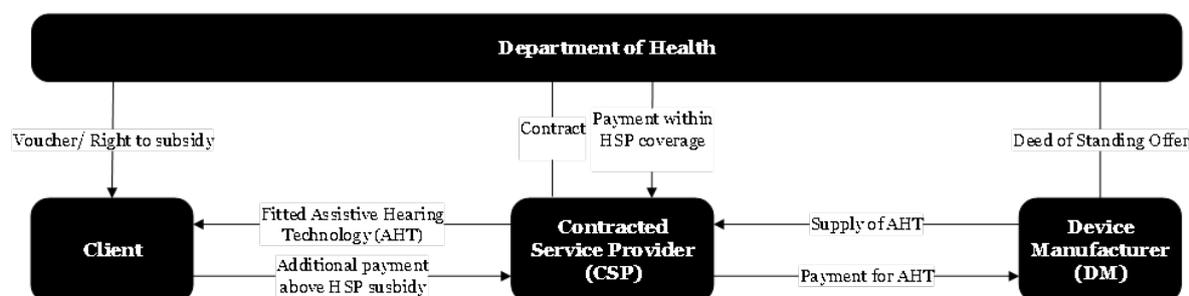
- register DMs, who are then able to offer AHT to CSPs
- establish a contractual arrangement between DMs and CSPs, where the latter party places an order
- make DMs compliant with the terms and conditions of supply surrounding warranty, repairs, and supporting services

- limit any guarantee that a CSP will place an order simply because the DM agrees to the Deed, and
- ensure that the DM supplies AHT on the basis and subject to the terms and conditions in the Deed.^{xlix}

The two most important mechanisms established by the Deed include the approved schedules for fully subsidised and partially subsidised AHT, and the minimum specifications. The former mechanism indicates the range of approved AHT that have complied with minimum technical criteria, as set by the minimum specifications. These mechanisms provide quality assurances around AHT provided to clients, ensuring that they are fit for purpose and able to function as an appropriate hearing intervention for the level of hearing loss the AHT is attempting to alleviate.

Legislation, the contract with CSPs, and the Deed with DMs, work together to allow clients to access high quality hearing services and AHT, which culminated in the provision of 1,334,788 services and 382,384 AHT in the FY2015-16.^l This allows eligible clients to access appropriate hearing services from CSPs (such as an assessment and fitting), while being able to source a range of Department-approved AHT through their CSPs. The interactions associated with each major party in the VS has been visualised at Figure 5.

Figure 5 Service delivery model arrangements in the VS ⁱⁱ



Source

Department of Health and PwC analysis

2.3.3 Accessing hearing services and AHT

The type of hearing services available through the VS is established through a schedule of service items and fees, which lists 48 service items that can be provided to clients. Each service item has a corresponding fee that can be claimed by the CSP after provision of the service. The Department is in charge of maintaining the schedule of service items and fees, having powers to amend the

- number and nature of the services made available through the schedule
- the fee payable to CSPs for providing the service item to clients (including its indexation), and
- the conditions for claiming.^{lii}

Certain additional fees and miscellaneous items also form part of the schedule but may not have a corresponding service item number. This includes the

- dispensing fee – applicable when a ‘behind the ear’ hearing aid is fitted
- annual hearing aid maintenance charge – payable by the client where the client has agreed to a maintenance plan, and
- device replacement fee – payable by the client to replace their lost device.

The VS also allows eligible clients to access AHT. AHT available through the scheme include

- high-powered behind the ear (BTE) hearing aids
- BTE hearing aids
- open ear hearing aids
- in-the-ear (ITE) hearing aids
- in-the-canal (ITC) hearing aids
- completely-in-the-canal (CIC) hearing aids

- body aids
- bone-conductor hearing aids
- Contralateral Routing of Signal (CROS) hearing aids
- Bilateral Contralateral Routing of Signal (BiCROS) hearing aids, and
- ALDs. ^{liii}

All these AHT are available either fully subsidised (i.e. at no cost to the client) or partially subsidised. The subsidy applicable to the AHT in question is determined by allocating each type of device to a category, which has a corresponding subsidy applied (see Table 6 for the AHT categories). For non-standard AHT, such as ALDs, the subsidy available is determined on a case-by-case basis.

Table 6 AHT categories ^{liv}

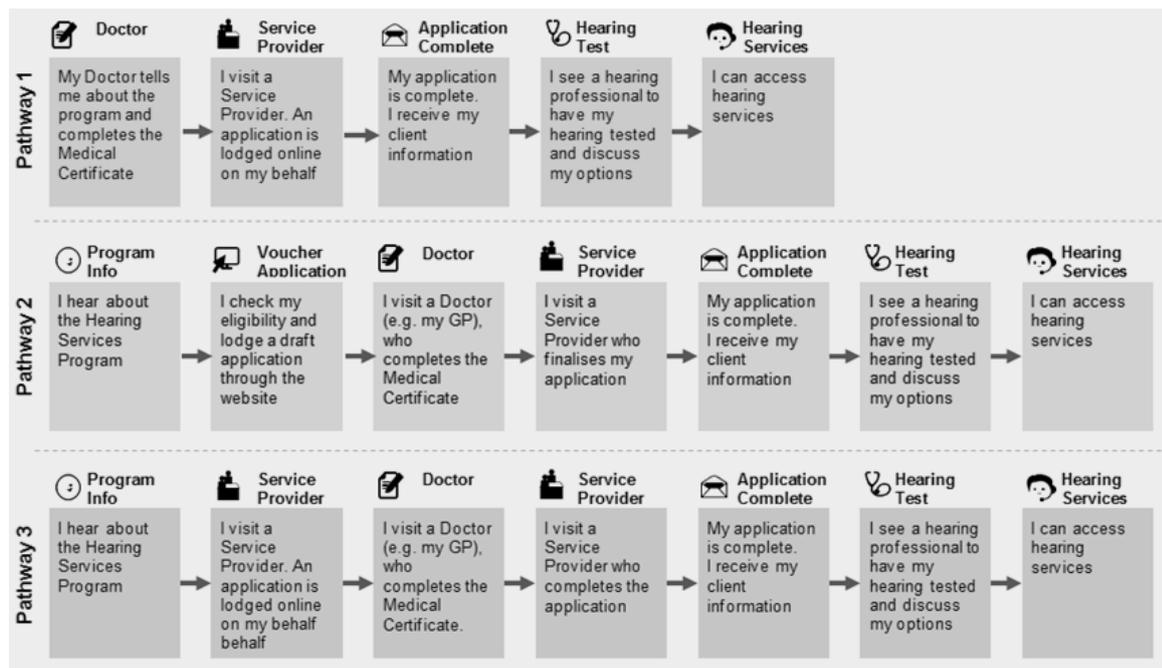
AHT category	Types of AHT included
Category 1	High-powered BTE hearing aids.
Category 2	BTE and open ear hearing aids.
Category 3	ITE, ITC, and CIC hearing aids.
Non-standard	Body aids, Bone-conductor hearing aids, CROS hearing aids, BiCROS hearing aids, and ALDs.

To access the range of hearing services and AHT available through the VS, eligible clients are issued with a welcome pack after they have applied for the VS. The voucher is issued electronically once an eligible client visits a CSP with their medical certificate. The voucher expires after a period of three years from the date of issue. There are multiple pathways to gaining access to the VS including the

- doctor initiated pathway (Pathway 1)
- patient initiated pathway (Pathway 2), and
- provider initiated pathway (Pathway 3).

The major difference among the three pathways is the extent to which the potential client is aware of the VS. All pathways require the Department to undertake an eligibility check with a relevant agency, and a valid medical certificate from a qualified General Practitioner (GP). Once the person passes the eligibility check, they can be issued with a voucher, with the first hearing service typically being an assessment (see Figure 6).

Figure 6 Clinical pathways to join the Voucher Scheme^{lv}



Source

Department of Health.

2.3.4 Community Service Obligation

To access hearing services and AHT through the CSO, prospective clients need to meet eligibility criteria, which differs from that in the VS. The CSO focuses on providing hearing health services to eligible cohorts who typically represent more ‘at risk’ clients (see Appendix B). The CSO also funds research on hearing rehabilitation and prevention of hearing loss through the National Acoustic Laboratories (NAL).^{lvi}

The *Australian Hearing Services Act 1991* established Australian Hearing as the statutory authority charged with administering the CSO. As a result, Australian Hearing is the sole provider of hearing services in the CSO. Australian Hearing is also a CSP under the VS.

While the CSO is funded by the Department of Health and forms part of the HSP, Australian Hearing reports directly to the Minister for Human Services and falls within the Human Services portfolio.^{lvii}

Services and AHT provided through the CSO are funded through a fixed annual budget appropriation, rather than on a service-based fee-for-service basis, as is the case with the VS.

Since clients in the CSO have more complex hearing loss, Australian Hearing offers a greater range of services and a wider range of AHT options (including funding of cochlear implant upgrades) in order to address the hearing needs of their clients. Given the need for a broader range of AHT and enable price efficiencies, Australian Hearing sources its AHT directly through its own tender arrangements with DMs.^{lviii} However, exceptions do apply in relation to implantable technology and certain accessories.

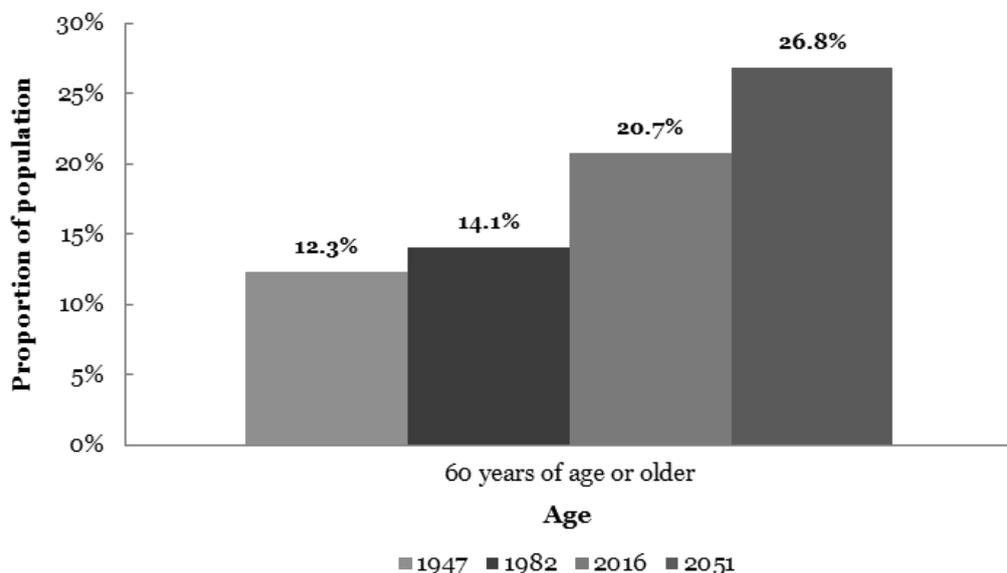
2.4 Trends in the Voucher Scheme

The current service delivery model has remained relatively constant since its adoption in 1997. Over this time a number of trends in demand and expenditure have emerged that, if left unchecked, pose a risk to the financial sustainability of the VS. While the VS is relatively small when compared to the overall Health budget, managing expenditure responsibly is important to ensuring the sustained delivery of client outcomes. These trends and their impact upon the long-term financial sustainability of the VS are discussed below.

2.4.1 Growth in demand and costs

Age is a major determinant of hearing loss, with reports estimating that 3 out of 4 people over the age of 70 suffer from some form of hearing loss.^{ix} As Australia's population ages, and Australians over the age of 60 increasingly represent a larger part of the population (see Figure 7), there will be a sustained increase in demand for the VS.

Figure 7 Proportion of Australia's population who are 60 years of age or older



Source

Australian Bureau of Statistics (ABS) cat. no. 3105.0.65.001, 3101.0, 3222.0, and PwC analysis. Percentages rounded to one decimal place.

Such demographic trends have contributed to the recent growth in VS administrative expenditure. However, total expenditure has far outstripped the growth in client numbers, suggesting other cost pressures exist within the VS. Table 7 shows that while clients in the VS grew at an annual rate of 2.8% between FY2012-13 and FY2015-16, total expenditure grew at an average rate of 7.1% per annum after controlling for inflation (i.e. in real terms). This indicates that VS expenditure is rising at 2.5 times the rate of client numbers.

Importantly, VS expenditure growth has also outstripped the growth of broader health spending, which grew at 0.8% per annum over the period FY2012-13 to FY2015-16.^{ix}

Table 7 Changes in key Voucher Scheme variables (FY2012-13 to FY2015-16) lxi

Item	FY2012-13	FY2015-16	Growth rate (per annum)
Total expenditure ^a	\$331.0m	\$406.3m	7.1%
Number of active clients	636,386	691,666	2.8% ^b
Total volume of AHT sourced	301,512	382,384	8.2%

Source

Department of Health and PwC Analysis.

Notes

- Total expenditure is the real expenditure associated with providing hearing services and AHT to eligible clients in the VS, and not departmental costs to administer the VS. The monetary amount is expressed in real terms by applying an average Consumer Price Index (CPI) observed over a financial year to that financial year's total nominal expenditure.
- The 2.8% growth rate in the number of active clients is consistent with the growth, and natural ageing, of the Australian population. An analysis of age-standardised growth rates of active clients indicates there was no additional growth apart from the normal growth of the Australian population.

Further analysis of these expenditure trends which controlled for the effects of age structure indicated that growth is not driven by a changing in the mix, or needs, of clients in the VS. This means that after accounting for age cohorts, there has not been a trend towards more people of a similar demographic being active in the VS. In contrast, the volume of AHT sold is growing at a rate of 8.2% per annum. This indicates that AHT is being supplied to the clients with increasing frequency and is the key component driving the increase in total expenditure.

The differences in the growth rates of number of active clients, supply of AHT, and VS total expenditure is made up of a complex set of factors. One possible explanation, flagged by a number of respondents to the public discussion paper, was that the current structure of service items and fees incentivises practitioners to fit AHT even when there is limited indication that it is wanted or needed by the client.

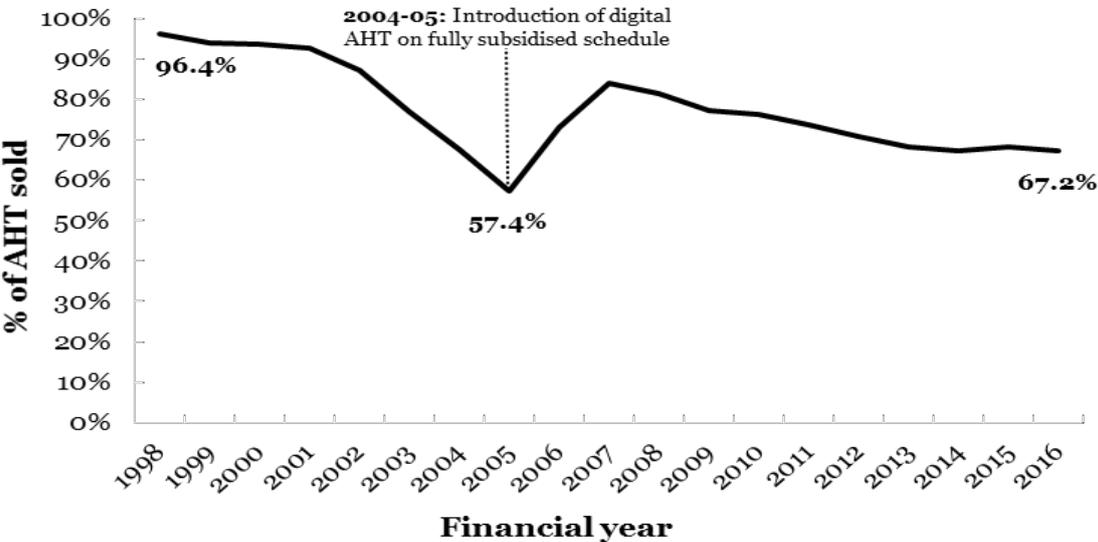
Against the backdrop of the projected long-term VS demand, and recent expenditure growth, this review is cognisant of the long-term financial sustainability of the VS. While the aim of the review is not to reduce expenditure, the recommendations have sought to address any distortions in pricing and incentives that have led to the growth in VS expenditure far outstripping the growth in VS demand.

2.4.2 Changes in client out of pocket costs for AHT

AHT consumption has evolved since 1997, as demonstrated by the proportion of fully subsidised AHT being sold fluctuating over time. The fall in the number of fully subsidised AHT being sold between FY1997-98 and FY2004-05 reflects the introduction of digital AHT into the Australian market (see Figure 8). The HSP introduced digital AHT into the fully subsidised schedule near the end of FY2004-05. This increased the proportion of fully subsidised AHT being prescribed during FY2006-07. Prior to this, clients were opting for partially subsidised AHT to obtain the digital technology.

Since FY2006-07, there has been a growing trend in the take-up of partially subsidised AHT, with 32.8% of clients adopting these over a fully subsidised AHT. The factors driving this include clients seeking to access superior technology features that are not available on the fully subsidised schedule. In addition, a range of government reports, anecdotal evidence, and feedback received from stakeholders point to sections of the industry heavily promoting or ‘upselling’ the provision of AHT from the partially subsidised schedule based on the greater financial return associated with these devices, even if it is not a clinical necessity for the client.^{lxii}

Figure 8 Proportion of fully subsidised AHT sold in the Voucher Scheme



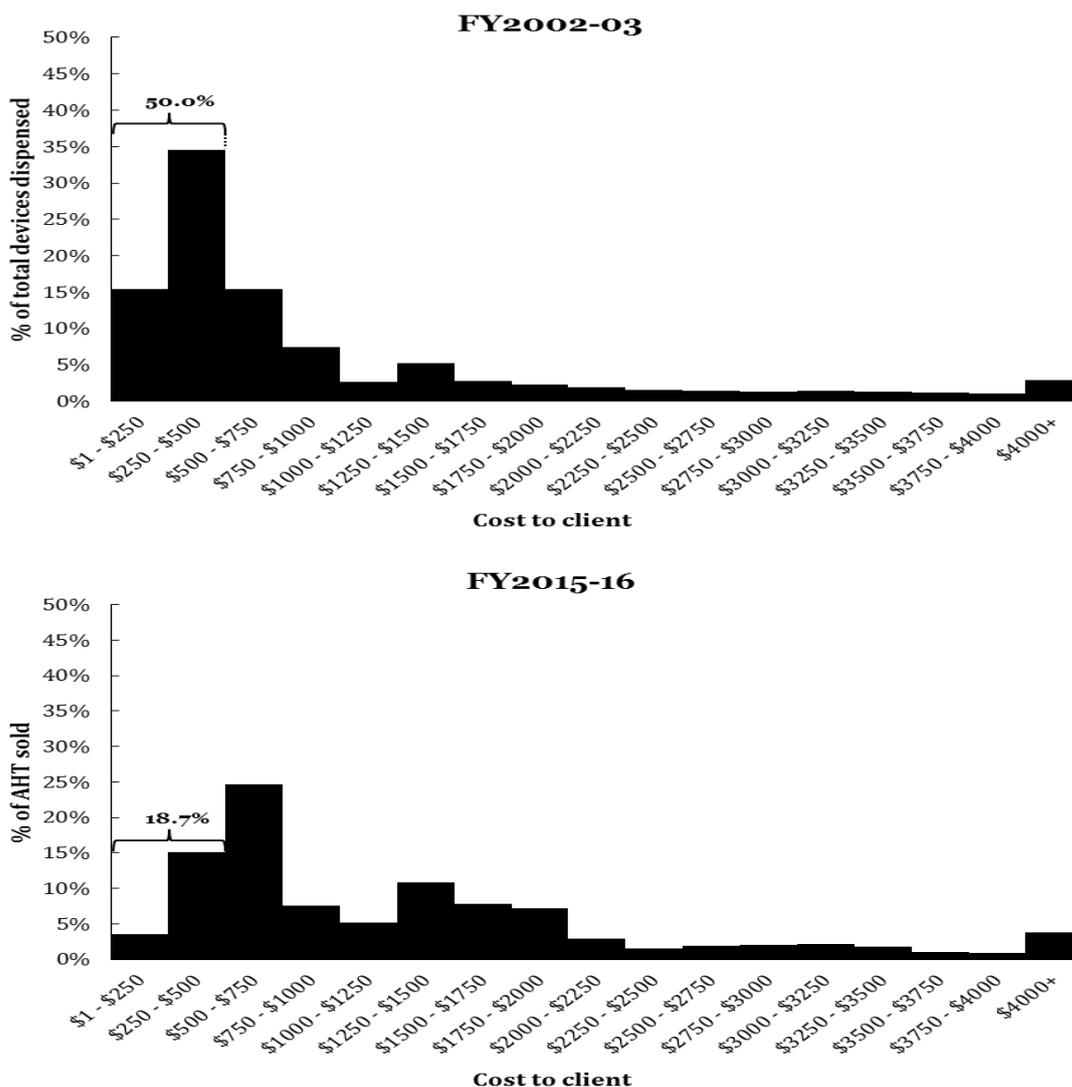
Source
Department of Health and PwC Analysis.

Note

The year in the horizontal axis refers to the end of the financial year (e.g. 1998 refers to the financial year ended 30 June 1998).

Additionally, the price clients have paid for partially subsidised AHT has increased over time. In FY2002-03, 50% of clients who received a partially subsidised AHT paid less than \$500. During the FY2015-16, the proportion had dropped to 19% of clients, with both the average price paid for the partially subsidised AHT and the number of clients buying partially subsidised AHT increasing (see Figure 9). The distribution indicates that there has been a shift towards a greater number of higher-priced partially subsidised AHT being sold.

Figure 9 Distribution of cost to client (real terms) from partially subsidised AHT in the Voucher Scheme



Source

Department of Health and PwC Analysis

Notes

Cost to client is the amount that eligible clients pay to the provider above the subsidy available for an AHT. Cost to client is expressed in real terms by applying an average CPI observed over a financial year to that financial year's cost to client values.

With improvements in the features and performance of fully subsidised AHT, it is unclear why the volume of higher-priced partially subsidised AHT has increased. Potential explanations include changes in clinical practice, patient expectations, industry behaviour, or funding structures of the VS. This trend also coincides with the Deed not being amended since 2009, and the minimum specifications not being updated since 2012.

2.5 Impact of the National Disability Insurance Scheme on the hearing services market

The NDIS, administered by the NDIA, an independent statutory agency,^{lxiii} represents a new way to provide reasonable and necessary supports to clients under 65 years of age who have a permanent and significant disability.^{lxiv} The scheme adopts an individualised and lifetime approach to help people with a disability access support that is catered to their needs, goals, and aspirations. The NDIS is available to individuals who are Australian citizens, permanent residents, or have a Protected Special Category Visa, under the age of 65 years and have an

- impairment or condition that is likely to be permanent (lifelong) and stops the individual from doing everyday things by themselves, or
- meet the early intervention rules (i.e. have an impairment or condition that is likely to be permanent, or be a child under six years of age with a development delay that would impact their ability to self-care, communicate, learn, or develop motor skills).^{lxv}

If eligible, the NDIA Access Guidance for hearing indicates that individuals must have permanent and severe to total impairment of hearing to access NDIS funded services.^{lxvi} Individuals who have a hearing disorder, which can be attested to affect their functional capacity, may also be eligible for the NDIS (such as cortical deafness, Pendred syndrome, sensorineural hearing loss, Stickler syndrome, Usher syndrome, and Waardenburg syndrome).^{lxvii}

The NDIA has released a number of publications that allude to how hearing services and AHT will be funded.^{lxviii} Hearing services are expected to be funded through a fee-for-service model that uses time as the unit of measurement.^{lxix} While hearing services has not been explicitly referred to in published price guides, it is likely that they will fall under the support item 'individual assessment, therapy, and/or training (includes Assistive Technology (AT)), with a maximum fee of \$175.57 (excluding Goods and Services Tax (GST)) claimable per hour of support provided.^{lxx} This maximum fee is separate to the cost of the AHT.

The range of AHT available through the NDIS has been published in its consumables guide, indicating that funding will be made available for all major types of AHT, including hearing aids, ALDs, and implantable technology (see Appendix C).^{lxxi} In general, the NDIA has indicated that lower cost AT can be directly authorised for acquisition, while AT greater than \$1,000 in value will require a quote prior to supply.^{lxxii} This stance aligns with the NDIA's AT strategy, which highlights the need to provide AT that allows an "empowering, sustainable and consistent approach to ensuring NDIS participants have choice in, and access to, individualised Assistive Technology solutions that enable and enhance their economic and community participation".^{lxxiii} AHT are expected to represent approximately 0.9% of the \$1 billion NDIS funding for AT projected for FY2019-20.^{lxxiv}

2.5.1 How the NDIS interacts with the HSP

The NDIS is expected to achieve a full roll-out nationally in mid-2019. The HSP is one of the government initiatives that is in-scope for the NDIS, which means eligible clients who are less than 65 years of age, may transition to the NDIS by 2019-20.

Currently, NDIS participants with a hearing loss (as a disability) are referred to the HSP to receive hearing services. This is an interim arrangement and by mid-2019, it is planned that eligible NDIS participants will receive services under the NDIS arrangement with service providers. When these current 'in kind' arrangements cease it is expected that the NDIS schedule of supports will include a similar range of AHT and therapies to that currently available under the HSP, together with a maximum price payable under the NDIS.

While the HSP is expected to operate in parallel with the NDIS after 2019-2020, it is uncertain whether the current CSO arrangements will remain under an annual fixed appropriation funding arrangement, and as a separate component to the VS. However, government stakeholders have highlighted the importance in ensuring that all clients can continue to access the same quality of services and AHT after mid-2019.^{lxxv} In this way,

inequitable differences in the quality and coverage of services and AHT between the NDIS and HSP would also be minimised.

2.6 Recent hearing sector inquiries

The Joint Standing Committee on the National Disability Insurance Scheme is undertaking an inquiry into the provision of hearing services under the NDIS. It seeks to provide clarity on the eligibility criteria for access to the NDIS, service needs of the deaf and hearing impaired, accessibility, adequacy of funding, and other related matters. Submissions to the inquiry identified particular themes which pose potential conflicts between the HSP and the NDIS and which require further clarification as the Department and the NDIA facilitate the transition of clients to the NDIS. These include

- the uncertainty over eligibility criteria in terms of hearing loss for NDIS participants, and whether it will be consistent with the HSP's current threshold
- whether the minimum requirements for the list of approved AHT, and their benchmark price (i.e. subsidy limit), will be aligned with those currently adopted by the HSP, and
- other areas of potential incompatibility and arbitrage between the NDIS and the Department.lxxvi

In addition to the NDIS hearing inquiry, the Standing Committee on Health, Aged Care and Sport is currently conducting an inquiry into the 'Hearing Health and Wellbeing of Australia', which focuses on

- identifying the causes and costs of hearing loss, and ear or balance disorders in Australia under current arrangements
- mechanisms by which Australians are able to become informed about hearing loss and health care
- access, support, and cost of hearing services and support
- current and future demand for a range of hearing services for Australians
- best practice, innovative models, and research and development in the field, and
- whether hearing health and wellbeing should be considered as the next National Health Priority of Australia.lxxvii

The ACCC also began an inquiry into the hearing aid sales in 2015. In part, this was a response to the investigative journalism undertaken by 'Background Briefing', which aired on Australian Broadcasting Corporation's (ABC's) Radio National in late 2014. The documentary highlighted the perceived conflict of interest that exists in the supply of AHT. In particular, concerns over the extent of potential consumer protection issues were highlighted. The supposed lack of transparency over ownership, supplier arrangements, and commissions received by audiologists or audiometrists were shown to make certain clinicians 'upsell' hearing aids for self-serving reasons. Given the complexity and sensitivity surrounding the provision of AHT, such a practice was deemed as coercive, warranting the ACCC inquiry.

The ACCC published their report on the findings of the inquiry on 3 March 2017.^{lxxviii} The ACCC assessed that commissions, incentives, and other mechanisms used by hearing professionals in the hearing aid industry to drive sales were in conflict with clinical independence, professional integrity, and an obligation to consumers. They also found that consumers were generally not aware of the factors that influence the advice and recommendations provided by a clinician. To help raise consumer literacy and awareness, an information guide was also published to help consumers make an informed choice when acquiring hearing aids.

Together these inquiries have sought to highlight the practices of industry that have led to cases of high out-of-pocket costs for consumers.^{lxxix} They are also focused on identifying population cohorts who do not have access to government funded hearing services, where the cost of hearing services is restricting their participation in the workforce or their ability to access appropriate interventions and support.

3. Findings

3.1 Overview

The findings of this report were informed by extensive consultations, which included 72 stakeholder interviews (involving over 40 hours of direct contact), two online surveys with a total of 381 responses, and 37 responses to the public discussion paper. This has been complemented with research and analysis conducted during the information gathering phase of the review.

Stakeholders representing government, industry, consumer groups, and PPBs participated in the consultation process. Generally, the level of constructive sector engagement was high, with the vast majority of key stakeholders positive about the current strengths of the sector and acknowledging the challenges facing the sector. Opinions then differed on what changes needed to be made in order for the current service delivery model to best overcome these challenges.

The following list provides the high level themes identified in this review

1. More can be done to focus on client outcomes
2. The current Minimum Hearing Loss Threshold (MHLT) and practices for measuring it does not align to international definitions
3. The current level of funding of services is contributing to a higher prevalence of cross-subsidisation
4. A greater focus on rehabilitation and support
5. Improving the flexibility of the service pathways
6. There is a need to improve the quality of information made available to clients
7. Minimum specifications are fundamental to ensuring access to high quality AHT
8. Effectiveness of AHT schedules could be improved
9. Access and types of ALD available under the VS should be broadened
10. Validity of the partially subsidised schedule and its role in the perceived upselling of AHT
11. Most government subsidised hearing services are limited to clients who acquire AHT through the VS, and
12. Uncertainty around the implementation and impact of the NDIS.

3.1.1 Finding 1 – More can be done to focus on client outcomes

Within the context of the Australian health sector, an outcome is defined as “a change in the health of an individual, or a group of people or population, which is wholly or partially attributable to an intervention or series of interventions”.^{lxxx}

Importantly, focusing on client outcomes drives a need to ensure that interventions are achieving results. This differs to a focus on outputs (e.g. ensuring access to services) with the assumption being that providing the right output directly leads to the desired outcome. This shift in emphasis is important to ensuring individuals experience an improvement in health outcomes and that expenditure aimed at improving outcomes delivers the desired results.

In the context of hearing health, specifying an optimal client outcome is complicated by the fact that interventions to treat hearing loss do not restore hearing,^{lxxxii} but rather increase the awareness of sounds and their sources.^{lxxxiii} This is further complicated by aged-related hearing loss, which deteriorates the level of hearing loss as the individual ages.^{lxxxiii} Thus, an optimal client outcome is achieved through hearing interventions that focus on mitigating

and/or managing the impacts of hearing loss on an individual's health. The most common intervention to hearing loss is the provision of an AHT (predominantly a hearing aid).^{lxxxiv}

The need to focus on client outcomes

The need to focus on client outcomes has been noted by research as being a key component in assessing the benefit or value associated with the provision of health services.^{lxxxv} Subsequently, an assessment of benefit or value requires the recording and examination of discrete, patient-focused data.^{lxxxvi}

This principle has been applied in the Australian context through the National Health Performance Framework, which uses a set of 44 indicators to evaluate the performance of Australia's health system and its impact on the health of the population.^{lxxxvii} Additionally, the NDIS has indicated the role supports play in helping clients achieve their goals, with the NDIA developing an Outcomes Framework to measure goal attainment for participants and overall performance of the NDIS.^{lxxxviii}

Being capable of evaluating the performance of health services by focusing on client outcomes has been noted to facilitate

- a reduction in wasteful spending (by reducing the prevalence of irrelevant, duplicative, and excessive health interventions), and
- an improved provision of a reasonable standard of care (by reducing the likelihood of receiving interventions that are of a very low or no benefit, or that cause harm).^{lxxxix}

Client outcomes in the HSP

Responses to the public discussion paper indicate that a majority of stakeholders (including most CSPs, some DMs, and all consumer groups and research institutions), agreed to the assertion that client outcomes have an important part to play in the delivery of hearing services in the HSP.^{xc} However, despite these responses, there was no consensus on a single approach to measuring client outcomes.^{xcii} As indicated above, limitations around measuring of outcomes curtails the ability to evaluate and assess performance.

While the measurement of outcomes has become more commonplace in certain health settings, such as in hospitals (e.g. in-hospital mortality indicators),^{xcii} the hearing services market exhibits a relatively lower degree of maturity in this area.

Currently, there are a range of instruments to evaluate whether an optimal client outcome has been achieved. These instruments can fall under, 'subjective' or 'objective' measures (i.e. opinions and attitudes of individuals vs. use of hard data).^{xciii}

The most commonly-used instruments in the VS, as reported by CSPs, DMs, PPBs, and industry associations, include

- Client Oriented Scale of Improvement (COSI) – subjective
- International Outcome Inventory of Hearing Aids (IOI-HA) – subjective
- Data logging – objective, and
- Speech testing – objective.^{xciv}

Research highlighted that another 16 types of measurements instruments could be used to evaluate hearing aid effectiveness.^{xcv}

In the face of a wide range of measurement instruments, consistently evaluating the effectiveness of hearing services and AHT at any given level of funding is limited. This limitation restricts the opportunities to evaluate and redress sources of wasteful spending and the provision of a reasonable standard of care that aligns with the objective of the HSP.

While stakeholders disagree on the measurement instrument to evaluate client outcomes, there is an increasing recognition on embedding a client-centric, outcomes focused approach to the delivery of hearing services and AHT. PPBs have begun to implement aspects of a Service Delivery Framework for hearing services,^{xcvi} which aims to establish a clear and consistent outline for the delivery of hearing services in accordance with best practice. As part of this, PPBs implemented a joint Code of Conduct^{xcvii} and Scope of Practice^{xcviii} that is applicable to all of their members as of July 2016. Given that membership to a PPB is

required in order for a practitioner to service the HSP,^{xcix} it indicates a trajectory of industry towards outcome focused service delivery.

Additionally, a large DM (William Demant Holdings) announced in June 2017 that it would remove commissions for hearing aid sales and move to an approach that incorporates client surveys as the basis to determine bonuses to its practitioners.^c

The objective of the HSP, and the role of the Department, could also contribute to limiting the achievement of optimal client outcomes. This stems from the current ambiguity surrounding what the objective of the HSP is. Publicly available information describing the objective or aim of the HSP indicates multiple interpretations (see Table 8).

Table 8 Interpretations of HSP objective

Source	Stated objective
Hearing Services Administration Act 1997	Sets up a scheme under which hearing services are provided to voucher-holders by CSPs. ^{ci}
Australian Hearing Services Act 1991	To provide hearing services to voucher-holders in accordance with an agreement entered into by the Authority under Part 3 of the <i>Hearing Services Administration Act 1997</i> . ^{cii}
HSP website	Work towards reducing the incidence and consequences of hearing loss in the Australian community by providing access to high quality hearing services and devices. ^{ciii}
Department of Health annual report 2015-16	Support access to a range of subsidised hearing services to eligible Australians to manage their hearing loss and improve their engagement with the community and support research into hearing loss prevention and management. ^{civ}
Hearing rehabilitation outcomes for voucher-holders	Assist people with hearing loss to maximise their potential for independent communication and improve their quality of life. ^{cv}

The process to move towards an outcome focused service delivery model requires that outcomes first be defined, data collected, compiled and analysed, and then comparisons made to identify areas for improvement. This requires that outcomes be comparable across peers on a national level. Research in the area of 'value-based health care delivery' support this, indicating that outcome measurement requires consideration of the most important health factors of the population of interest. It would then require comparison across patients that controls for the range of idiosyncratic differences through risk-adjustments and standardisation.^{cvi}

Areas to address

A majority of stakeholders (including most CSPs, some DMs, consumer groups, and research institutions) believed that the current service delivery model did not support or promote achieving optimal client outcomes. This is despite the standard clinical practice of monitoring clients, and adjustments made in light of this monitoring. It is believed that the VS needs to do more to actively encourage the measurement of client outcomes by industry through a consistent measurement tool.

When questioned as to why there is no consistent approach, stakeholders could not agree as to whether it was a reflection of the lack of a standard approach to measuring or evaluating outcomes, the current structure of service items and fees, or a more systematic issue in the hearing services market.

Responses to the public discussion paper indicate that outcome measures are common at the CSP level in some form. However, at a program level, there remains an inconsistent approach to measuring client outcomes with CSPs using different measurements that are not comparable. The lack of comparability is a challenge facing the VS, which limits the ability to capture broader trends in client outcomes at a program level.

This lack of comparable measurement needs to be addressed. The next logical step once the quality of outcomes data is assured is to draw linkages between client outcomes and funding for specific services or AHT to improve client experience and 'value for money'.

3.1.2 Finding 2 – The current Minimum Hearing Loss Threshold (MHLT) and practices for measuring it do not align to international definitions

The MHLT, implemented under the *Hearing Services (Participants in the Voucher System) Determination 1997* on 1 July 2010, sets criteria around the minimum level of hearing loss required in order for an individual to be eligible to receive a fitting to the ear being tested.

The MHLT is inconsistent with best practice international definitions, and the approaches adopted by other government supported hearing reimbursement programs such as the State Insurance Regulatory Authority (SIRA) New South Wales (NSW). Currently, the MHLT is set at 23 decibels (dB) as measured on a 3 Frequency Average Hearing Loss (FAHL) method consisting of measurements at 0.5, 1, and 2 kilohertz (kHz).^{c.vii}

While exemption criteria apply, the general rule is that clients will not be fitted unless they have a hearing loss in the ear to be fitted that is strictly greater than 23 dB (>23dB 3 FAHL).

Furthermore, consultation with government indicated that the current MHLT reflects a compromise between the clinical recommendation and industry expectation at the time when the threshold was first set.

Areas to address

Comparison of this MHLT definition to best practice international definitions indicates some misalignment on two fronts. The MHLT does not

- align with the World Health Organisation's (WHO) definition of disabling hearing loss (measured on 4 FAHL),^{c.viii} or
- adopt the most common form of FAHL measurement used by practitioners (4 FAHL consisting of measurements at 0.5, 1, 2, and 4 kilohertz (kHz)).^{c.ix}

In addition, there is empirical evidence to indicate that the lower the severity of hearing loss, the less likely the individual is to desire using the AHT.^{c.x} It was found that while 15% of those aged over 55 years reported owning a hearing aid, approximately 33% rarely used their device.^{c.xi}

In such a scenario as this, questions are raised on the efficacy of the current MHLT and the role it plays in mitigating the likelihood of spending from the provision of fitting services and AHT that are undesired or would be of little benefit to the client. This is compounded by findings in the US that show a majority of adults aged 55-74, who would benefit from a hearing aid, are not receiving access to them, while others who are given a hearing aid do not wear them.^{c.xii} This could be linked with a subsequent lower level of motivation to use their hearing aid. If applicable in the HSP, it is indicative of expenditure that does not have a commensurate optimal client outcome.

The MHLT definition may also guide the eligibility criteria to be adopted by the NDIS, particularly as the NDIA is yet to publish technical criteria to identify hearing as a disability, in a manner measurable through conventional hearing tests. Eligibility criteria have been defined in terms of the severity of hearing loss, with the NDIA Access Guidance indicating that eligible individuals with permanent and severe to total impairment of hearing will have access to the NDIS.^{c.xiii}

Eligible individuals who suffer from a range of disorders resulting in hearing loss may also be able to access the NDIS.^{c.xiv} However, how this relates to measuring hearing loss along 4FAHL is, at the present time, not known. It is also likely that the NDIS will look to the Department to determine their own hearing loss eligibility criteria, leveraging the dB, FAHL, and kHz requirements adopted by the HSP.

Other government supported hearing reimbursement programmes, such as State based workers' compensation scheme, adopt different stances on measuring eligibility due to hearing loss. For example, SIRA NSW evaluates impairment through binaural hearing impairment (BHI) evaluations, including its monaural equivalent.^{c.xv} This evaluation relies on the tables in the 1988 NAL publications, and helps to establish a relationship between BHI

and whole person impairment that factors in tinnitus and occupational noise-induced hearing loss.^{cxvi}

3.1.3 Finding 3 – The current level of funding of services is contributing to a higher prevalence of cross-subsidisation

The way in which the current service delivery model funds services has drawn criticism from certain stakeholders who believe it dilutes the value of providing hearing services, increases the emphasis on AHT as the primary - and sometimes sole - solution to mitigating hearing loss, and incentivises a dependency on the provision of AHT.^{cxvii} These sentiments were predominantly expressed by CSPs, industry associations, and community groups. Combined, these factors have contributed to a reliance on cross-subsidisation (the situation where the sale of AHT covers the losses accrued, or lack of profits derived, in the provision of hearing services).

Cross-subsidisation in the HSP

Cases of CSPs providing hearing services at-cost, or at a loss, indicate that there is room to amend the way services are funded in the VS.^{cxviii} Benchmarking of the FY2016-17 schedule prices for VS services against the private market and other government programs indicates the current fees are low for a range of key services (see Table 9).

Table 9 Price benchmarking of hearing services FY2016-17, average price per hour (excluding GST)^a

Program	Assessment	Follow-ups	Maintenance	Rehabilitation	Client Review
VS ^b	\$138.00	\$184.00	\$96.02	\$183.73	\$158.17
State based workers' compensation schemes (average) ^c	\$182.16	\$160.98	\$130.35	\$292.50	\$170.47
MBS ^d	\$186.75	N/A	N/A	N/A	N/A
Private market (average)	\$171.27	\$108.00	\$142.50	\$155.92	N/A
NDIS (maximum cost per hour) ^e	\$175.57	\$175.57	N/A	\$175.57	\$175.57
Average (excl. VS and NDIS)	\$180.06	\$134.49	\$136.43	\$224.21	\$170.47

Source

Department of Health, NDIS, multiple State based workers' compensation schemes, and PwC Analysis.

Notes

- Price benchmarking based on publicly available information. Prices for non-VS services were allocated to service items available in the VS schedule of services, based on the service description provided by each respective program, in order to improve comparability of price per type of hearing service offered. Prices have been standardised on an hourly basis by applying the reported time per service as published by the respective program, or by applying the assumed time base for services offered through the VS. Fitting and repairs services not included, given the difficulty in comparing these services on a like-for-like basis.
- VS prices are those reported on the FY2017-18 schedule of fees and applicable from 1 July 2017.^{cxix} Excludes fees for manual payments, and based on time base estimates provided by the Department.
- Prices represent an average of those reported by the SIRA NSW (formerly Workcover NSW),^{cxx} Worksafe VIC,^{cxxi} Workcover Queensland (QLD),^{cxxii} Worksafe Western Australia (WA),^{cxxiii} and Return to Work South Australia (SA).^{cxxiv} Prices reflect the latest published values for each respective organisation. Includes speech pathologist fees, with Workcover QLD, Worksafe WA, and Return to Work SA.
- MBS prices are those available for the provision of hearing services for adults (items 10952, 81310), which excludes hearing services for children 15 years or younger (items 82030 and 82035). Based on the MBS Schedule effective 1 July 2017.^{cxxv} A range of diagnostic audiology services can also be claimed through the MBS (items 82300, 82306, 82309, 82312, 82315, 82318, 82324, 82327, and 82332). However, they represent specialised hearing services such as brain stem evoked response audiometry, which are

incomparable to other hearing services presented in the table. As such, they have not been included in the comparison.

- e. Based on the NDIS price guide 2017-18.^{cxxvi} NDIS services are not prescribed as hearing services per se, but are nonetheless related given the description provided by their publications, which includes ‘individual assessment, therapy, and/or training (includes AT)’, of which hearing services are likely to form a part.

However, it is important to note that these observations were only for a subset of key services that could be compared on a like-for-like basis (e.g. assessment, follow-up, maintenance, rehabilitation, and client review), with the complexity of the current schedule making comparison for all items unfeasible. This was particularly the case with fitting service item, where the bundling of different types of services, for example fitting of a device, rehabilitation and maintenance, into a single fitting service item makes comparison difficult.

Observable trends (such as the increasing proportion of partially subsidised AHT being dispensed relative to fully subsidised AHT, and the growth in the number of AHT being dispensed) may signal the reliance CSPs may have on the sale of AHT to cover costs and make a ‘reasonable’ profit. Yet the prevalence of cross-subsidisation is primarily supported by anecdotal evidence made by hearing practitioners and industry associations.^{cxxvii} It is noted however that these stakeholders also have the most to gain from any price increase.

Some of these trends around the provision of AHT may be explained by changing client preferences, an increase in the client population, or a desire of clients to receive a greater set of AHT features. This highlights the underlying tension that currently exists between a CSP operating profitably and a practitioner providing the best possible treatment for their client. This is supported with reports noting the presence of unqualified practitioners servicing the Australian hearing services market prior to the imposition of the PPBs joint Scope of Practice and Code of Conduct in 2016.^{cxxviii}

Reports have also referenced the existence of cross-subsidisation arising in two forms. The first being as indicated above, and the second in the sale of partially subsidised AHT. In the latter case, the difference between the price of this device and the subsidy is used to cross-subsidise the cost of services.^{cxxix} This has coincided with pensioners being encouraged to acquire a partially subsidised AHT. Additionally, cross-subsidisation exists as a means to fund budget shortfalls in the CSO component of the HSP through the provision of complementary hearing services claimable under the VS.^{cxxx}

Areas to address

The reliance on cross-subsidisation also reflects the increasing costs associated with servicing a range of ‘at risk’ clients who have greater difficulty accessing hearing services.

This includes clients who

- are unable to leave their home
- live in an aged-care facility
- are from a non-English speaking background, or
- live in a remote region.

As such, questions about what additional services should be supported by the VS need to be addressed. These include whether there is a role for the Department to fund

- interpretation and translating services
- reimbursement for travel time, and
- the delivery of services through digital mediums.

Government supported interpreting services are available free-of-charge (through the Department of Social Services (DSS) funded Translating and Interpreting Services (TIS)) to particular medical specialties (such as anaesthesia, dermatology, and radiology among others),^{cxxxi} and groups that are involved in casework or emergency services and need to communicate with Australian citizens and permanent residents who do not speak English.^{cxxxii} Currently, allied health is not listed as a medical specialty making allied health professionals ineligible for government subsidised interpreting services.^{cxxxiii} General allied health services also fall outside the definition of ‘approved’ casework or emergency service activities.^{cxxxiv}

While the HSP does not currently support translating and interpreting services, other government supported hearing reimbursement programs (such as the NDIS and certain State based workers' compensation schemes – see Table 10) and Federal Health programs (such as the MBS^{cxv} and Pharmaceutical Benefits Scheme^{cxvi}) do. However, access is not uniform across all programs. The Department of Veterans' Affairs (DVA) is also working towards identifying the extent to which it will provide translating and interpreting services, as acknowledged in its Agency Multicultural Plan.^{cxvii}

Table 10 Translating and interpreting services available in government supported hearing reimbursement programs

Programs	Overview
VS	No access to free translating and/or interpreting services.
NDIS	Provides funding to access translating and interpreting services. Plans are in place to determine appropriate allocation of services, development of fact sheets, and translation of key videos. ^{cxviii} Information about the NDIS has been translated into ten languages other than English, including Arabic, Auslan, and Chinese. ^{cxix}
DVA	Implementing its Agency Multicultural Plan, which includes details on how translating and interpreting services will be accessed. ^{cxl}
SIRA NSW	Not offered – redirects clients to TIS service. ^{cxli}
Worksafe VIC	Provides 24 hour recorded information service in a range of languages for questions on workcover claims. Advisory service can automatically connect to an interpreter during business hours. ^{cxlii}
Workcover QLD	Not offered – redirects clients to TIS service. ^{cxliii}
Return to Work SA	Provides translating and interpreting services to clients through NAATI qualified practitioners, including TIS national. ^{cxliv}
Workcover WA	Provides interpreting services to clients, but no reference of translating English documents into other languages. ^{cxlv}

CSPs have also indicated, in their responses to the public discussion paper, that they bore travelling costs associated with servicing clients who are unable to visit their site, or where clients are located in rural or remote communities. The cost associated with servicing these clients was noted to contribute to the need to rely on cross-subsidisation.^{cxlvi} Currently, the VS does not provide a benefit associated with travelling costs, or a loading for servicing clients in rural and remote locations.^{cxlvii}

This contrasts with the stance of the NDIA, which has indicated that a price loading would be applicable where services are provided to people with a disability in rural and remote Australia, including Aboriginal and Torres Strait Islander communities.^{cxlviii} The loading would reflect those adopted by the Independent Hospital Pricing Authority (IHPA).

In FY2017-18, the loading is to be 20% for remote locations, and 25% for very remote locations.^{cxlix} Additionally, the NDIS will include an allowance for travel for supporting services of less than four hours in length. In these cases, the first hour of support will include an allowance for travel, with forty minutes being for direct service delivery and the first 20 minutes of the hour allowed as travel.^{cl}

State based workers' compensation schemes also provide reimbursement for travel time related with the provision of hearing services on a per hour basis. This includes Return to Work SA and Workcover QLD.^{cli} However, other workers' compensation schemes, such as Worksafe VIC, only provide reimbursement for reasonable travel expenses associated with the provision of medical and hospital services, and not allied health services (of which hearing services forms a part).^{clii} With advances in technology and the rising prominence of telehealth, the role of reimbursement for travel expenses, or a loading for servicing clients in rural or remote locations, may become increasingly less relevant.

Telehealth, of which teleaudiology is but one example, has been described as the use of telecommunication technologies to

- reduce barriers to optimal care for those clients in underserved areas

- improve user satisfaction
- improve accessibility to specialists
- expand the reach of medical practitioners, and
- save patients from having to travel in order to receive high quality care.^{cliii}

Teleaudiology has been noted as a means to alleviate some of the adverse impacts associated with a shortage of audiologists and hearing practitioners.^{cliv} As such, teleaudiology could have a role in addressing the currently reported labour shortage of audiologists in Australia. The Department of Employment has indicated that the majority of employers looking for audiologists were unable to fill vacancies, with one fifth of employers not attracting responses to advertised vacancies.^{clv} Given that the ageing of Australia's population is likely to increase underlying demand for audiologists,^{clvi} issues of labour shortages and unfulfilled demand for hearing services could be compounded in future years, particularly with the NDIS expected to be fully-rolled out in 2019. Teleaudiology may serve to mitigate these issues, including in rural and remote areas.

Telehealth has already been flagged as an appropriate means to provide government supported health services with the Department supporting its use. Since 1 July 2011, Medicare and DVA rebates and financial incentives have allowed telehealth to be available under the 'Connecting Health Services with the Future' initiative.^{clvii} However, the Department has stopped short of mandating the use of any particular type of technological solution to deliver telehealth services. The role of teleaudiology in the provision of government supported telehealth services is, at the present time, unclear, with limited to no support currently available. However, this might change in the near future with the NDIA indicating in their Rural and Remote Strategy 2016-2019 that support and services may be provided through telehealth, video conferencing, or through off-site supervised workers/therapy assistants.^{clviii}

Whether there is a place in the VS for translating and interpreting services, travel reimbursements, or access to teleaudiology, is an area to be considered by the Department. However, costs of providing these additional supports need to be considered alongside the practicalities of including them as reimbursable activities in the VS.

Government stakeholders pointed out that in other programs, providing participants with broader access to supporting services can lead to rapid expenditure growth, cumbersome and ongoing compliance efforts, and an inability to wind back the benefits once provided.

3.1.4 Finding 4 – A greater focus on rehabilitation and support

Rehabilitation and support is taken to mean services offered as a complement to AHT that increase "the probability that successful communication will occur between a hearing-impaired person and his or her verbal environment".^{clix} Such a definition does not include fitting services, or the act of dispensing an AHT, because they do not primarily focus on addressing the everyday activities and/or participation issues of the affected individual.^{clx}

This definition emphasises that rehabilitation and support is to be available at any point preceding, during, or after the AHT is provided to client.

The need for rehabilitation and support

There is still debate around the full impact that rehabilitation and support services play in achieving optimal client outcomes when applied in isolation, although this may also stem from the inability to consistently measure client outcomes.

Empirical evidence shows that individuals receive improved mental and physical benefits when rehabilitation and support is considered in addition to the most common intervention for a hearing loss (i.e. an AHT).^{clxi} It is likely that this reflects the finding that a hearing intervention such as an AHT is dependent on the motivation and skill of the individual who receives it, which in part can be targeted and improved through access to rehabilitation and support.^{clxii}

There are also a range of other studies that indicate that the benefits from providing rehabilitation and support include

- a short-term differential treatment benefit associated with the adoption of communication strategies^{clxiii}
- a short-term reduction in self-perception of a hearing handicap, and potentially the better use of communication strategies and hearing aids,^{clxiv} and
- 75% of participants in a study reporting some improvement on their primary goals.^{clxv}

Rehabilitation and support then focus on the communicative and functional well-being of the individual. Such an emphasis helps to address the current tendency to employ a 'technocentric' model of service delivery.^{clxvi}

Though hearing loss cannot be restored through the application of hearing interventions,^{clxvii} evidence indicates that rehabilitation and support strategies to delay the need for an AHT may be meritorious where the individual claims to be unable to derive enough benefit or comfort from wearing the AHT.^{clxviii} In this sense, rehabilitation and support services act as a diversional program that addresses the empirical finding that up to one in three people are not psychologically ready for a hearing aid when they are first presented for treatment.^{clxix} As such, there is a role for rehabilitation and support in improving the likelihood of achieving optimal clinical outcomes for clients. This is due to the important role that rehabilitation plays in mitigating negative psychosocial factors that can hamper the effectiveness and rates of AHT usage, ensuring expectations are aligned, and a full spectrum of techniques to improve hearing is adopted.

Rehabilitation and support have also been shown to positively contribute to addressing the stigma attached to hearing loss by addressing feelings such as anxiety and social exclusion. Results of a study demonstrated a statistically significant difference between pre-group and follow-up assessment outcomes associated with implementing an auditory rehabilitation programme in New Zealand.^{clxx} Outcomes were measured on Health Related Quality of Life and changes in cognitive anxiety.

Rehabilitation and support in the HSP

The current schedule of services in the VS contains three items specifically for rehabilitation services. Uptake of these items has been low and claiming rules have prevented clients accessing them until after being fitted with a fully subsidised AHT.

The effectiveness of the current rehabilitation services were considered in a review commissioned by the Department in 2011 on the 'Rehabilitation Plus program'. The review found that while all stakeholders supported providing rehabilitation services in principle, the way these services were funded put more of an emphasis on the provision of a hearing aid and less of an emphasis on addressing the psycho-social and functional communication aspects of the client.^{clxxi} The review also noted that there was a general consensus among CSPs that Rehabilitation Plus was under-resourced (relative to other items in the HSP) and presented significant opportunity costs – together limiting its commercial applicability.^{clxxii}

Responses to the public discussion paper also present similar conclusions. Approximately 75% of respondents believe that the current rehabilitation and support services are insufficient in providing clients with appropriate support.^{clxxiii} This finding was driven by a combination of the CSPs' ability to access and/or claim for rehabilitation and support services, the need to cross-subsidise for the provision of services (discussed in Finding 3 - The current level of funding for services is contributing to a higher prevalence of cross-subsidisation.), and the rigidity of current claiming rules.

Areas to address

There was clear support in the public discussion paper for increased client access to rehabilitation services. Further, most stakeholders agreed that the practitioner should have the discretion to decide the appropriate time for a client to receive rehabilitation and support services.

The current incentives around rehabilitation are geared towards the provision of an AHT, which could be limiting a client's access to early rehabilitation which might actually be more suited to their individual needs and delay the need for fitting an AHT where it would not be

used by the client. This is a similar area highlighted in the Review of the Rehabilitation Plus program, which recommended that the HSP increase the focus around psycho-social and functional aspects of aural rehabilitation.^{clxxiv}

The Australian Society of Rehabilitation Counsellors has considered this issue and believes that following a hearing assessment, all clients should have their psychological readiness evaluated prior to receiving other hearing services. Clients who are not psychologically ready could then have psychosocial interventions until prepared. This would be one area where rehabilitation and support would help to mitigate wasteful spending and help the client achieve their optimal outcomes.

A key challenge is the industry's capacity to deliver the range of rehabilitation services suggested by some stakeholders.^{clxxv} The individualised nature of rehabilitation means that service provision can be costly, making it less commercially attractive for CSPs. The delivery of rehabilitation services is also less attractive where the CSP incurs the cost of contracting a third party to deliver the service. This could be one explanation as to why the demand for, or uptake of, rehabilitation services in the VS has been minimal to date.

3.1.5 Finding 5 – Improving the flexibility of the service pathway

Stakeholders suggest that the current schedule has complex and rigid claiming rules that limit the extent of professional and clinical judgement applicable in the treatment of a client.^{clxxvi}

CSPs have stated that after providing a service to a client they often spend additional time and resources referring to service claims history and voucher claiming rules. There are also concerns that the rules limit adaptability to technological advances in the delivery of hearing services.

One example of the inflexible pathway is the lack of support for teleaudiology, which requires two supporting individuals to be involved in order to service the client. The rules allow only the provider to receive a fixed reimbursement that may not be commensurate with the number of personnel involved and the time required to provide the service. This may affect the willingness of CSPs to invest in the necessary infrastructure and training to deliver such services, reducing the benefits of teleaudiology, which includes improved access to hearing services for clients in remote locations, improved timeliness in the provision of service,^{clxxvii} and alleviation of geographical labour shortage issues.^{clxxviii}

Areas to address

Hearing loss generally increases with age and so for the majority of clients in the VS who are pensioners, it is likely that they will require ongoing hearing services. While this may be beneficial from a CSP perspective (in that they will continue to receive a viable source of revenue), this needs to be balanced against potential cost implications. It is also important to ensure CSPs focus on the client's specific needs and do not actively pursue clients to ensure all components of a voucher are used within a specified time period.

Outside of alternative forms of service delivery and the rules surrounding their provision, stakeholders also pointed to several other audiological conditions a practitioner could be able to provide services for under the VS, the most common being tinnitus. Others referred to implantable and bone anchored technology.^{clxxix}

While the VS currently does not support practitioners providing these services to clients, there may be merit in considering extending such services under broader reforms to the HSP.

A number of stakeholders also believed that a client should not have to reapply for a voucher, where the client has retained their eligibility to HSP, and that there should be automatic renewal every three years for those who have retained their eligibility. Once a client has been identified as having a hearing loss, the clinical nature of hearing loss means that it is highly unlikely that their hearing will improve and therefore the client will need ongoing management for the remainder of their life. However, given the average age of a VS client (approximately 79 years^{clxxx}), automatic eligibility checks every three years may be an

inappropriate undertaking. Particularly if it allows CSPs to claim a benefit for services not actually provided to the client, whether it be because the client is unable to genuinely verify the provision of the hearing service or AHT, or because the client was deceased.

3.1.6 Finding 6 – There is a need to improve the quality of information made available to clients

Information asymmetry exists between CSPs and clients, as the latter have less access to vital information that could improve the quality of their decision making. This assertion is supported by the ACCC inquiry into the hearing aid industry. The ACCC found that information asymmetry led clients to distrust practitioners, due largely to a lack of disclosure of sales commissions and other financial margins.^{clxxxix} Without information transparency, clients are concerned that financial gain may incentivise the practitioner to recommend particular AHT. The concern is exacerbated by the inquiry's finding that in some cases the AHT purchased did not meet the clinical need or budget of the consumer.^{clxxxii}

The ACCC inquiry also found that several consumers were dissatisfied with the performance of their AHT, with some noting this as the reason for not using their device.^{clxxxiii} With the HSP representing a considerable share of the hearing services market (estimated as 68% of the Australian hearing services market in FY2015-16^{clxxxiv}), cases of HSP clients acquiring an AHT that do not meet their expectations, and subsequently hamper their ability to achieve communication needs, are an area of concern.

It has been reported that with the variety of AHT on the market, decisions around identifying which type of hearing device and service is most appropriate for the individual's needs, preferences, and budget have become an increasingly overwhelming task.^{clxxxv} This is exacerbated by the lack of standardised terminology, which makes it hard for individuals to differentiate marketing jargon from comparable features and capabilities that meet health literacy standards.^{clxxxvi}

In addition, publicly available reviews that aim to provide individuals with a means to compare hearing aids have been criticised for the presence of perceived conflict of interest, with ratings and evaluations of these hearing aids available on websites and publications developed by DMs, or their related party.^{clxxxvii} This indicates the lack of an independent source of information that allows for comparison of AHT in a way that is easy to understand, aligns with health literacy requirements, and abides by standardised terminology.

Information quality in the HSP

Stakeholder views were divided on the matter of information quality in the HSP. DMs and industry associations were strongly of the view that clients receive independent advice and saw no need to introduce mechanisms to address the concerns of the ACCC.

In contrast, stakeholders who identified as a CSP or practitioner noted that while the bulk of practitioners worked with their clients' best interests in mind, financial incentives favour prescribing certain AHT. This issue is exacerbated by the perceived need to cross-subsidise the cost of hearing services with the sale of partially subsidised AHT. Areas of concern included the increasing vertical integration within the industry (with CSPs and DMs being part of the same organisation) and the provision of commissions, financing, or other incentives such as technology by DMs to CSPs.

Stakeholders asserted that clients should be provided with mechanisms to manage expectations, including measuring and reporting outcomes to practitioners and understanding that while an AHT may advertise certain benefits, these benefits are not necessarily achievable by all clients. Other stakeholders also highlighted the importance of clients recognising the value of rehabilitation.

Areas to address

Despite the HSP website providing information for clients, this is spread across 319 sites^{clxxxviii} and is not presented in a manner that allows easy comparison and decision making.

However, this set of information still limits the opportunity for clients in the HSP to compare AHT. Stakeholders also implicitly acknowledged the need to improve client literacy, with suggestions provided to facilitate information available to clients.

The most prevalent was the development of an informative HSP website containing full descriptions of all AHT in the VS. Stakeholders further believed that publishing the features of fully subsidised AHT would empower clients to compare features of these AHT with the partially subsidised AHT. To ensure comparability of AHT, some suggested that the NAL or another independent organisation could evaluate all AHT and publish their findings on the website.

While these suggestions have predominantly focused on how information is delivered through a website, the importance of a clear, user-friendly website should not cloud the importance of making information accessible to clients who are unable to access information online. The key solution offered by stakeholders was hardcopy booklets with simplified language. However, aspects surrounding the expected demand for, or cost associated with, making hardcopy booklets were not specified during consultations. There were also indications around offering client information in a range of foreign languages to support clients from non-English speaking backgrounds.

3.1.7 Finding 7 - Minimum specifications are fundamental to ensuring access to high quality AHT

Stakeholders indicated that minimum specifications for AHT are one of the most important aspects of the current supply arrangements. The specifications, found in Schedule 3 of the Deed, are the minimum technical criteria AHT must meet in order to be made available to clients in the HSP.

The specifications differ slightly depending on the type, model, and subsidy-status of the AHT (including certain accessories). At a high level, different minimum specifications need to be met for

- ear moulds and shells
- fully subsidised AHT, and
- partially subsidised AHT.

Minimum specifications also provide assurance to CSPs and clients of the quality of AHT. While AHT continues to improve with the release of newer technology and a larger range of features,^{clxxxix} the minimum specifications have not reflected this trend – unchanged since 2012.

Suggestions in the public discussion paper to remove the minimum specifications were opposed by almost all stakeholders. Arguments in favour of maintaining minimum specifications cited a possible decline in the overall quality of AHT available through the VS and clients not benefitting from improvements in technology if the minimum specifications were removed.

Areas to address

The Department is responsible for determining and reviewing minimum specifications. Past reviews have sought advice from a Technical Reference Group made up of medical and audiological experts. While the Department commenced work to review the minimum specifications in 2013, feedback from industry resulted in no amendments being made.

Whether the Department should continue to maintain responsibility for setting minimum specifications was questioned by a few stakeholders. Alternatives included establishing an independent expert panel or using the existing government funded bodies such as NAL, the Hearing Cooperative Research Centre (CRC), or the newly formed Technology Assessment (HTA) branch.

In any event, and regardless of the party who reviews the minimum specifications, options exist to raise them to take advantage of improving technology and ensure consistent consumer access to warranties.

Raising these minimum specifications may also mitigate the amount of ‘upselling’ of partially subsidised AHT, with additional features becoming standard and clients perceiving an improvement in the quality of AHT.

3.1.8 Finding 8 - Effectiveness of AHT schedules could be improved

Schedules are adopted in the HSP as a mechanism to differentiate AHT available to clients based on whether they are available at no cost to them (i.e. fully subsidised AHT) or available with a client contribution (known as a ‘top-up’ – for partially subsidised AHT).^{cxv}

AHT on the schedules are compliant with the technical requirements of the minimum specifications, ensuring a degree of quality assurance for those clients who are to receive an AHT through the HSP.

DMs, CSPs, and practitioners have highlighted the role that these schedules play in facilitating client choice, which is seen as a core benefit of the HSP. In theory, clients are able to exercise choice by acquiring any AHT on the schedules (representing 1,645 AHT as of 7 February 2017),^{cxvi} regardless of the CSP servicing them. Additionally, the partially subsidised schedule provides clients with the choice to access a greater range of features, above those prescribed for fully subsidised under the minimum specifications. An example of these features includes wireless connectivity such as Bluetooth.

Areas to address

A number of DMs noted the ease of adding AHT to the schedule was one of the strengths of the VS. However, there could be improvements to the mechanism for retiring AHTs that are in very low demand or superseded by new models with improved technology. Currently, DMs are responsible for retiring AHT from the schedules. However, given the current structure of the Deed, there is little incentive for DMs to retire an AHT and no mechanism to limit DMs from keeping older technology in the schedules.

Stakeholders offered a range of suggestions which may reduce the proliferation of older technology in the schedules. The most common was for the Department to automatically remove AHT after a specified period, for example five years. Others included removing AHT when it is superseded by the release of a new model or making DMs remove AHT on the schedule where their volume of sales falls below a specified percentage in a given year.

3.1.9 Finding 9 - Access and types of ALD available under the VS should be broadened

The ability of a client to acquire an AHT is different depending on whether the AHT is a hearing aid, ALD, or implantable technology (e.g. a cochlear implant). Given that individuals do not experience hearing loss in the same way, with a range of factors needing consideration, having different access rights to different types of AHT limits how a client can access a solution that is optimal for their own degree of hearing loss, demographic, and environmental factors.^{cxvii}

CSPs have highlighted that processes to acquire an ALD (a type of AHT that can help the user to hear in a range of listening situations such as over the telephone, over distance, and interacting with a television) are more cumbersome and restrictive than those for hearing aids.^{cxviii}

These stakeholders also commented on the limited range of ALDs available under the VS. Currently, personal amplifiers and television headsets are the main types of ALDs claimable. Some consider the list of approved AHT should be broadened to include items such as television streamers and home telephone amplifiers, which could help clients achieve their optimal outcomes.

Stakeholders also indicated that clients should be able to access an ALD in addition to their hearing aid, rather than as a substitute. DVA clients can concurrently access both types of AHT through additional benefits funded by the DVA. However, feedback from stakeholders who interact with DVA clients noted a tendency for CSPs to recommend both types of AHT,

which may indicate a limited focus on clinical need, with the driver being the availability of both hearing aids and ALD to the DVA cohort.

Areas to address

While, non-standard AHT, which includes ALDs, make up less than 2% of all AHT sold,^{cxv} cumbersome processes flagged by stakeholders pose a challenge to the effectiveness of the current supply arrangement because ALDs can provide improved accessibility, convenience, and functionality relative to conventional hearing aids for certain individuals.^{cxv} An example cited by a number of stakeholders was older individuals in nursing homes, where it was considered that ALD and appropriate training could deliver client outcomes better than a hearing aid.

While the Department has a process for applying for non-standard AHT that are not listed, some stakeholders suggest that the range of listed non-standard AHT could be expanded.

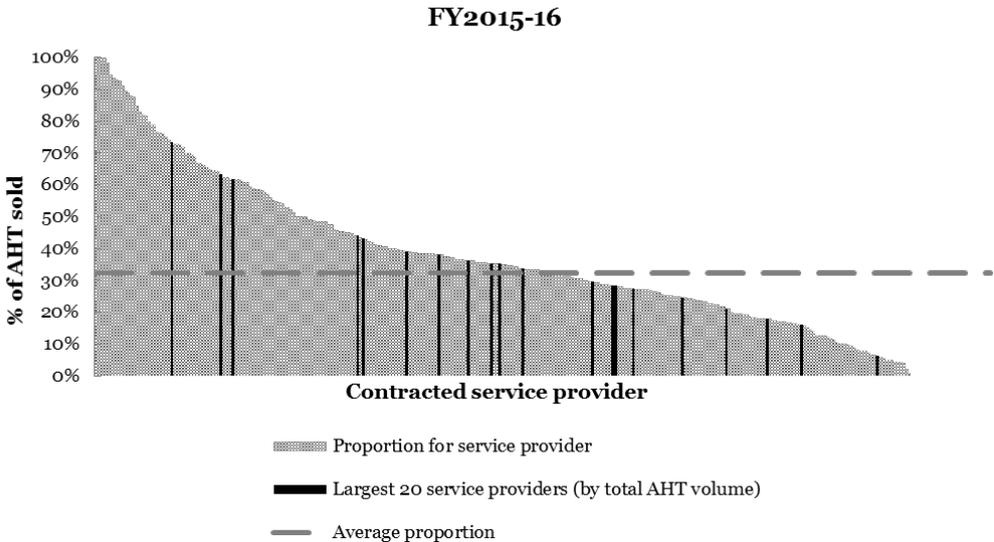
Expanding access to both types of AHT without strong guidelines on the clinical circumstances where they are appropriate would likely result in a significant cost to government without significant improvement in client outcomes.

3.1.10 Finding 10 – Validity of the partially subsidised schedule and its role in the perceived upselling of AHT

There is a significant divergence in the proportion of partially subsidised AHT sold in the VS on an individual provider basis (see Figure 10). The industry average is around 32%, implying that for every 100 people entering the VS, 32 receive a partially subsidised AHT while 68 receive a fully subsidised AHT.^{cxvi} As can be seen, there is a significant divergence around this average, which is unusual in situations where clinical guidelines and norms exist.

Furthermore, the largest 20 CSPs represent 84% of the total volume of AHT sold in the VS. Of these, most were selling partially subsidised AHT at a rate close to or below the industry average. However, a few CSPs sell partially subsidised AHT at a rate twice the industry average.

Figure 10 Proportion of partially subsidised AHT sold by CSPs in the Voucher Scheme (FY2015-16)



Source

Department of Health and PwC Analysis.

The majority of stakeholders are supportive of maintaining the partially subsidised schedule. The most common justification for maintaining the schedule is that it provides clients with greater choice to obtain an AHT which meets their individual needs. Concerns were raised that removing the schedule may limit the capacity for some clients to obtain an AHT which meets their specific requirements. However, it should be noted that while client and clinical

needs are central to some stakeholders, removal of the subsidy to the partially subsidised schedule would likely result in revenue loss to the DMs, and possibly, to a lesser extent, CSPs.

Revising the minimum specifications and price paid for fully subsidised AHT may also address a difference in the availability of features that are driving clients to acquire partially subsidised AHT. Most DMs and CSPs believe such changes to the supply arrangements would require careful implementation and consideration of unforeseen impacts on the industry. Additionally, the review would also be able to address situations reported by CSPs where they are able to trade warranty away for a discount on the wholesale price for the AHT.

Areas to address

Despite the existence of clinical guidelines and norms, analysis showed a significant divergence in the proportion of partially subsidised AHT sold in the VS on an individual provider basis. This raises questions as to the validity of the partially subsidised schedule.

Some stakeholders, such as consumer groups and research institutions, considered there is merit in decommissioning the partially subsidised schedule to address some of the issues associated with cross-subsidisation (as raised in Finding 3) and highlighted by the ACCC inquiry.^{cxcvii} Removing the partially subsidised schedule would also re-orient the VS to focus on meeting clinical needs of eligible clients, and not necessarily on satisfying the clients' consumer preferences or 'wants'.

It was also suggested that if the partially subsidised schedule was decommissioned, the minimum specifications of fully subsidised AHT could be raised. In practice, this would mean that the features found in the fully subsidised AHT would increase to encompass some of the features currently only found in partially subsidised AHT.

With VS data showing that a majority of clients acquire fully subsidised AHT,^{cxcviii} it supports the assertion highlighted by industry that fully subsidised AHT are of 'mid-range' quality. Therefore, removing the partially subsidised schedule would be unlikely to adversely affect the majority of clients. Additionally, it could help curb the issue of increasing out-of-pocket costs for clients as outlined in the background of this report (see chapter 2) by eliminating the risk of clients paying for features that they may not use or do not completely understand.

3.1.11 Finding 11 – Most government subsidised hearing services are limited to clients who acquire AHT through the VS

Connected with the growing demand for partially subsidised AHT has been the growth in the variety of AHT easily available to clients outside the VS. Interestingly, stakeholders had diverging views around the issue of access to AHT purchased outside of the VS, and whether clients should retain access to hearing services offered through the VS where they purchase an AHT from alternative providers that are not CSPs.

In initial consultations, a broad range of stakeholders noted the ability of clients to purchase good quality, lower cost aids online and through other retailers (e.g. Costco). In some cases, the cost of the AHT was less than if the client had obtained the same AHT through the partially subsidised schedule. In other cases, the AHT may not have been available on the partially subsidised schedule.

Stakeholders also held the perception that privately acquired AHT were not being supported through the VS. AHT that are purchased online, or through a non-VS approved party, may not be serviced by a CSP in the VS because different service software is used in different countries and regions. However, the acquisition of software to be used by CSPs is a private business decision, and not currently regulated under the HSP.

Privately acquired AHT can be supported by the VS through access to maintenance and adjustments, even when the privately acquired AHT does not meet minimum specifications. Yet, clients cannot receive a rebate towards the cost of privately acquired AHT.

DMs, CSPs, and industry associations expressed concern that people accessing these AHT were not getting the expert support needed to correctly identify an appropriate AHT or have it fitted in the correct manner. Feedback received from the public discussion paper was generally against a proposal to allow clients to bring in their own AHT to the VS. Those respondents who held this view believed that allowing BYO devices into the program could result in a lower quality of the AHT, AHT of an uncertain quality, or AHT that are not suited to the needs of the client. It was also noted that the role of the qualified practitioner was being diminished as the client could choose their own AHT against the advice of their practitioner.

Stakeholders pointed out that many of these issues stem from consumer literacy and information asymmetry. Clients are not necessarily aware of the drawbacks of purchasing their own AHT, as opposed to going through the VS. Conversely, the opaque nature of AHT pricing, and availability of similar or seemingly identical products from other retailers at a substantially discounted price, encourages consumers away from the VS and the advice CSPs provide.

Overall, the claims against BYO AHT are centred around the purported negative impacts that they could have on the quality of AHT available through the VS, and therefore, the effectiveness of AHT as a hearing intervention. It also poses certain financial risks to CSPs that have grown accustomed on relying on the sale of AHT as a primary source of revenue, and DMs who would face disruption to the current supply model with possible pricing pressure from other outside retailers.

Areas to address

With DMs being part of global supply chains and operating in multiple jurisdictions, sourcing of AHT through private channels (i.e. allowing a BYO approach) would facilitate competition among CSPs in the HSP, while allowing clients to shop around for the best price.

Such a stance has been adopted by the US government, by the passing of a bill that mandates the US Food and Drug Administration (FDA) to create an ‘over-the-counter’ hearing device category for those individuals who have mild-to-moderate hearing loss.^{cxciix} With its passing, it is hoped that there will be more readily accessible, and affordable hearing interventions for those Americans who have a hearing loss.^{cc}

However, there are inherent limitations and challenges in allowing this arrangement into the HSP. Any AHT acquired through private means needs to be balanced with the client being able to continue receiving access to necessary services that can help increase the value of their AHT. Current restrictions around the use of servicing software limit this, while reports of CSPs being unwilling or unable to service AHT not acquired through them, is another.

Additionally, any approach to embed BYO principles to AHT acquisition needs to analyse the interplay between warranty and the place of purchase, given that international warranties may place a burden on the client being able to service or repair their AHT. The role of minimum specifications and AHT schedules should be considered so that the quality assurances surrounding AHT acquired through the HSP are met – this is one expectation heavily entrenched as fundamental to the VS service delivery model.

3.1.12 Finding 12 – Uncertainty around the implementation and impact of the NDIS

A consistent theme evident through all stakeholder discussions and responses to the public discussion paper was uncertainty around the NDIS and how its implementation would impact stakeholders. This was especially evident among providers of hearing services.

Many stakeholders were actively trying to seek information about the NDIS through the consultation process. Key areas of focus included NDIS eligibility, pricing, accreditation, and linkages with the current program.

While key aspects of the NDIS hearing program are still being finalised, existing information around potential pricing, accreditation, and operations was not consistently understood by stakeholders.

While it is outside the scope of this review to directly address communications surrounding the NDIS, it should be recognised that this uncertainty is likely to influence stakeholder views and the appetite for major reform or changes in the VS at the current time.

4. Analysis of alternative models

This chapter focuses on analysis of viable alternatives to the status quo by drawing on information collected through research, modelling, stakeholder consultations, and stakeholder responses to the discussion paper.

A total of five alternative models were considered (two for service items and fees, and three for AHT supply arrangements). This includes

- simplification and unbundling of services
- time-based fee-for-service
- amendments to the Deed of Standing Offer for AHT
- market driven supply for AHT, and
- competitive tender for AHT.

These alternative models were informed by comparing government supported hearing reimbursement programs in Australia, and international models to hearing services and supply of AHT. This is discussed in section 4.1 Comparative models.

Alternative models viable for adoption in the VS are described in sections 4.1 and 4.2 below, supplemented by information relating to possible impacts on stakeholders, implementation issues, mitigation strategies, and feedback received through the public discussion paper.

Section 4.3 considers the likely support for such reform, as indicated by responses to questions presented in the public discussion paper.

4.1 Comparative models

The way the VS provides hearing services and supplies AHT is similar to the models adopted by other government supported hearing reimbursement programs in Australia.

International models predominantly provide hearing services through a fee-for-service model, however, there are a range of novel mechanisms that are as yet untested in the Australian context. For AHT supply, international models were more diverse and included adoption of a tender approach to supplying AHT.

4.1.1 Government supported hearing reimbursement programs in Australia

The MBS, NDIA, DVA, and State based workers' compensation schemes all adopt variants of the service-based fee-for-service model to provide hearing services to their clients. AHT supply arrangements are either not covered under these programs, or adopt a similar approach to the supply arrangements of the VS.

Provision of hearing services

The MBS has a restricted number of hearing services it funds. These are typically those provided to clients who have a chronic or terminal medical condition and complex care needs (item number 10920), are children who are part of the 'Helping Children with Autism' program (82030 and 82035), are people of Aboriginal or Torres Strait Islander descent (81310), or for clients that require diagnostic audiology services (82300, 82306, 82309, 82312, 82315, 82318, 82324, 82327, and 82332).^{ccii} Rules are in place so that only audiologists can provide hearing services through the MBS, and not audiometrists.^{cciii} Some fees are payable with a presumed minimum time base, while others do not indicate minimum expectations around time. The VS funds a relatively larger range of hearing services, allowing access to a broader set of clients, and permitting audiometrists to provide hearing services.

While the full details of the NDIS model are still being finalised, it is likely that it is similar to the VS in the sense that a fee is payable for the provision of hearing services. While hearing services have not been explicitly referred to in NDIA price guides, it is likely that they will fall under the support item 'individual assessment, therapy, and/or training (includes AT)', with a

maximum fee of \$175.57 (excluding GST) claimable per hour of support provided.^{cciv} This maximum fee is separate to the cost of the AHT.

This is different to the approach adopted by the VS, which is more prescriptive around the type of hearing service to be provided but align with the broader NDIS philosophy of promoting client driven solutions. The service items available in NDIA publications indicate that services are allocated on what area of disability they seek to address. Additionally, the NDIS fees available for hearing services, made comparable to those in the VS by the Department's timing assumptions for key services, indicate some degree of misalignment (see Table 9). Additional reimbursement mechanisms, outside of the fee itself, are also different between the NDIS and the VS. The NDIS provides a loading for providing services to regional and remote locations that aligns with those adopted by IHPA. They also provide reimbursement for travel time under particular circumstances. Neither a loading, nor reimbursement for travel time are currently available through the VS.

Hearing services accessible through the DVA currently leverage the VS, or are available through the DVA tinnitus program.^{ccv} For those DVA clients receiving hearing services through the VS, the DVA funds additional benefits that are not available for non-veteran clients in the VS. This includes the client contribution for maintenance and battery supply, payment of client fee for replacement aid/s, and certain AHT replacement fees.^{ccvi}

Hearing services are also accessible through State based workers' compensation schemes. For these schemes, hearing services are covered on a fee-for-service basis. These schemes, such as SIRA NSW and Worksafe VIC allow audiologists to claim a higher fee than audiometrists. They also support similar services to those available through the VS, which includes fitting, repairs, and maintenance. Some bundling of services apply, however, SIRA NSW appears to unbundle most services except for fitting. Restrictions apply on the number of claims available to their clients over a period of time, with Worksafe VIC paying assessment and fitting once every 5 years. At present time neither SIRA NSW nor Worksafe VIC provide reimbursement for travel time.

AHT supply arrangements

AHT supply arrangements adopted by other Australian hearing reimbursement programs are similar to those adopted by the VS. However, certain programs either do not support AHT at all, or are more precise about the subsidy or types of AHT available to its clients.

The CSO currently operates on a tender model, with Australian Hearing engaging in a formal agreement with Siemens,^{ccvii} who also happens to service the HSP more generally through Sivantos.^{ccviii} Australian Hearing also procures implantable technology,^{ccix} and other accessories, which are not available through Siemens.^{ccx}

The MBS currently does not fund AHT, even for clients that would have been eligible for the range of hearing services indicated in the section above.

As indicated in section 2.5 Impact of the National Disability Insurance Scheme on the hearing services market, the NDIS has made a range of AHT available to its clients, as indicated in its consumables guide. All major types of AHT are available, with restrictions placed on acquisition of AHT that exceed \$1,000 in value.^{ccxi} For these AHT, a quote will be required prior to supply. The range of AHT is not based on the DM, brand, or model, but rather by the type of AHT it represents (see Appendix C). This is a departure from the VS, which provides a range of prescriptive categories that must be met in order for the AHT to be fully subsidised.

AHT supply in the DVA is conducted through two channels. Similar to their approach on providing hearing services, they also leverage the VS to supply AHT to its veterans. The second channel is the DVA Rehabilitation Appliance Program (RAP).^{ccxii} Eligible clients are provided a range of ALD through the RAP, subsidised by the DVA, which are more exhaustive than those available through the VS. They can also access the entire range of AHT, both fully and partially subsidised, available through the VS. The DVA also funds batteries, spare aids, and replacements for its eligible clients.^{ccxiii}

State based workers' compensation schemes also provide funding for AHT. The supply of hearing aids in SIRA NSW includes a maximum fee of \$2,500 per aid, and includes a remote.^{ccxiv} The actual AHT, in this regard, is separated from the fitting service provided to dispense it. This is similar to the approach adopted by the VS, and is at odds with that adopted by Worksafe VIC who bundle the cost of the AHT with the fitting services in what is deemed a 'fitting package'.^{ccxv} Given that Worksafe VIC bundles the fitting cost with the supply of AHT, they provide two separate fees to reflect whether it was a monaural (\$774.40) or binaural fitting (\$1,227.29). These are paid only once every 5 years and also include 6 month supply of batteries and all subsequent consultations in the 12 months after the date of fitting.^{ccxvi}

4.1.2 International models

As part of the review, international models were analysed to identify how other countries approach the provision of hearing services and AHT. Countries included the US, the UK, New Zealand (NZ), Canada, Germany, and Sweden (see Appendix D for a detailed overview).

Provision of hearing services

The manner in which hearing services are delivered to clients on behalf of government differs around the world. For example, the US Medicaid program in the State of New York, and Canada both provide hearing services that are closely linked to the provision of an AHT.^{ccxvii} Alternative pathways that do not eventuate into an AHT are limited in these jurisdictions. This is also a reality in the NZ model, however, funding here is focused on the cost of the AHT as opposed to hearing assessments or fittings. Hearing services can be received at minimal costs in public hospitals, with district health boards offering assessments at no cost.^{ccxviii} This contrasts certain private providers of audiological services in the US who have adopted Activity-Based Costing methodology to inform their unbundled pricing model.^{ccxix} Under Activity-Based Costing the price of an AHT is billed separate from the service. Such an approach has been identified as a way to emphasise the value of the practitioner, provide transparency to consumers, allow providers to experience more of a direct correlation between cash flow and service provision, and increase the potential for long-term revenue.^{ccxx}

Funding mechanisms similar to the VS are adopted in the UK with regards to how prices are set. In the UK, hearing services are priced at the nationally set fee. This is a similar approach to that currently in-place in the VS. However, the UK also allows for hearing services to be priced locally by Clinical Commissioning Groups (CCG).^{ccxxi} The pathway to access hearing services in the UK is also similar to the VS, requiring a referral from a GP prior to being seen by a qualified practitioner who is listed on their Any Qualified Provider scheme.^{ccxxii}

With regards to reimbursement and pricing for hearing services, the US Medicare program also adopts a national set of prices, but, unlike the UK, these are determined by application of a statutory formula.^{ccxxiii} This is somewhat similar to Germany, who provide reimbursement for hearing services delivered in publically funded hospitals on the basis of Diagnosis-related Groups (DRGs).^{ccxxiv} While the US Medicare program remunerates to cover reasonable provider costs relating to professional work provided, technical expenses, and professional liability insurance, Germany reimburses on the basis of what diagnosis is being addressed and the setting or site of services being provided. The VS currently does not fund hearing services in either fashion. Rather, it provides a subsidy without reference to a statutory formula. The subsidy also does not explicitly cover technical expenses and insurance borne by providers, and does not discriminate based on setting or site (although the site is expected to be compliant with expectations found in clauses of the contract between the Department and CSPs).

Additional funding mechanisms adopted by international models include a negative adjustment payment for not complying with reporting requirements (applicable in the US Medicare program), applying a co-payment for the testing and fitting of AHT (as in Sweden), and payment that is dependent on the client writing a written declaration of benefit (as in the US Medicaid program in the State of New York).^{ccxxv}

AHT supply arrangements

AHT supply arrangements differ markedly across countries. While the VS shares some similarities with the arrangements of Canada and NZ, it differs from the tender models adopted in the UK and US.

In Canada, a 'Provincial coverage' model is adopted, which makes the provision of AHT a Provincial decision. Most Provinces and Territories have jurisdiction over eligibility requirements, the subsidy payable for AHT, and the range of AHT accessible.^{ccxxvi} While this has seen benefits similar to those evident in Australia (such as a diverse range of AHT being fully subsidised), drawbacks exist in the lack of national uniformity. This is at odds with how the VS provides the same AHT supply arrangements and subsidy, regardless of State or Territory.

The NZ model is also similar to the VS, however, they supply AHT through an 'outsourced intermediary' model. The NZ Ministry of Health sets the terms and conditions of AHT provision, but outsources the management of AHT supply to an intermediary.^{ccxxvii} This is different to the VS, with the Department being the sole manager and administrator of the provision of AHT in Australia. The NZ approach has allowed minimum standards of quality to be set for AHT, key performance indicators to be imposed on the intermediary, and client access to some fully subsidised AHT. This approach has also been noted to create an added level of administrative burden by not fully detaching itself from reviewing applications. Eligibility and equity of access has also been highlighted as drawbacks of the NZ model. Interestingly, the Ministry of Health in NZ addresses some information asymmetry issues by producing information booklets that highlight the differences between types of hearing aids and the price expected to be paid for them.

The AHT supply arrangements of the UK and some US States are tender models, which mean that government institutions are the direct purchasers of AHT. In the UK, the NHS Supply Chain exclusively procures AHT from 8 DMs.^{ccxxviii} While this arrangement has been reported to provide a range of advantages including economies of scale, free AHT to clients, dedicated account managers, and a minimum quality of AHT, it also has certain disadvantages. This includes significant waiting times, lower compliance and satisfaction rates, and restrictions on the technology made available over time.^{ccxxix}

The US Department of Veterans Affairs and a multi-State agreement between US States (Maine, Minnesota, Michigan, and Wisconsin) also have a formal tender arrangement with 6 and 10 DMs, respectively.^{ccxxx} US veterans', and eligible clients in hearing programs in the aforementioned States, have been able to access cheaper AHT and accessories. While this is fully subsidised for Veterans', it is not for eligible clients in each State. The benefits of these arrangements are centred on the reduced cost associated with procuring an AHT, applicable to both clients and government. However, this has come at the expense of the range of AHT available, and additional administrative tasks.^{ccxxxi} The US Department of Veterans Affairs has been noted to represent the largest public hearing aid market in the US, constituting 20% of units sold in 2016.^{ccxxxii} However, given that the US represents the largest hearing aid market in the world, the disruption to industry from adopting a tender model is mitigated somewhat by the sheer volume of AHT being sold in the US (estimated to be in excess of 3.5 million units in 2016).^{ccxxxiii} This may not be the same for Australia, with a tender model likely to result in considerable disruption to industry. This is supported by anecdotal evidence as stated in responses to the public discussion paper from stakeholders including most CSPs, DMs, and industry associations.^{ccxxxiv}

4.2 Service items and fees alternative models

The current schedule of services and fees under the VS has not been reviewed since first established in 1997. There are currently 48 service items that may be claimed by CSPs of which there are many duplicates with only minor variations. Also a number of service items integrally link the provision of the service to supply of an AHT. For example, there is a single bundled payment for the

- supply of a hearing aid

- fitting of the hearing aid to adjust it to the client's specific hearing loss and comfort, and
- follow-up visit by the client for further fine tuning and advice on the use of the hearing aid.

Given the similarities in the way hearing services are provided in other Australian hearing reimbursement programs, as well as international models, the alternative models presented below focus on simplifying the way hearing services are administered.

As a result, the models below are expected to cause minimal disruption to clients in the industry, based on the similarities they have with models adopted elsewhere.

4.2.1 Simplification and unbundling of services

Description

- This option would simplify and unbundle the current schedule of services and fees to recognise the value they have in achieving optimal clinical outcomes for clients.
- It would entail the introduction of a lower number of service items, a different set of fees, a new service pathway, and claiming principles that reflect the true cost of providing hearing services. This will incentivise the provision of hearing services, where the supply of AHT would not be appropriate. This is designed to help ensure that optimal care is provided to each client and that the range of services prescribed is not determined by financial considerations potentially built into the current fee arrangements.
- By unbundling services, it would be possible to map the underlying service provided by the practitioner to optimal clinical outcomes.
- Over time, as optimal client outcomes are defined and measured, the fees can be amended to reward practitioners who are helping clients achieve an optimal clinical outcome, while scrutinising those practitioners who are not.
- The new schedule would include Assessment, Rehabilitation, Fitting, and Maintenance with separate fees for each (see section 5.2.1 and 5.2.2).
- Binaural fitting and maintenance would be eligible for a 50% loading, to take into account the additional time to fit and repair an additional AHT.
- Loading would not apply to any other service item based on the anecdotally supported premise that assessing and rehabilitating two ears does not differ substantially from treating one.
- The service pathway will evaluate whether the client is ready and would benefit from receiving an AHT.
- It emphasises a larger role for rehabilitation, and differentiates between the first year and subsequent years of a three year voucher cycle.
- The claiming principles aim to provide a less prescriptive approach to claiming, facilitating increased flexibility and an opportunity for the Department to amend rules in response to undesired industry behaviour (see Appendix E).

Stakeholder Impacts

- CSPs have greater flexibility in the services they provide to clients.
- Reduced administrative burden on CSPs due to simpler schedule.
- Remunerates CSPs for time spent counselling clients after a fitting, and where appropriate, prior to a fitting.
- Encourages greater access to rehabilitation services especially if an AHT is not the best mechanism to meet a client's communication needs.

Implementation Considerations

- The Hearing Services Online (HSO) and Department of Human Services e-Claims portals would need to be updated to reflect the new schedule of services and claiming rules.
- New voucher clients would automatically commence services under the new schedule. For existing clients, additional work may be required to ensure appropriate mapping of services between the existing and new schedule.

- While the types of services claimable under this model is less than the status quo, the Department could still collect sufficient data about VS clients and the services they receive. However, the Department should first consider exactly what data needs to be captured to monitor program outcomes and expenditure.
- While not aligning directly with the NDIS fee-for-service model, the reduced number of service items makes it easier to compare the fees for services under the VS with those paid under the NDIS.
- The Department would also need to undertake further industry consultation as part of regulatory impact statement process in the latter half of 2017. This would enable a new policy proposal for the new schedule of services to be considered in the 2018-19 Budget context. The recommended pricing would likely constitute a major pricing change, requiring the approval of government.

Key Risks

- The simplification of the schedule may initially cause confusion for CSPs who are unsure of which item to claim.
- The mapping of existing services items to the new schedule is not accepted by CSPs as appropriate.
- The fees for the new service items are considered by CSPs to be inadequate given the reduction in the number of claimable services.
- Unbundling the fitting of AHT from other services may negatively impact the profitability of some CSPs whose business model is focused on dispensing AHT. While the new schedule and its higher fees would likely lower the prevalence of providing hearing services at a loss, certain CSPs might capitalise on being able to maximise profits by focusing on provision of more services and a continued focus on dispensing AHT.
- CSPs and industry associations are likely to be the stakeholder group most resistant to this change. It is likely that some of these stakeholders will advocate that the benefit to the industry in simplifying and unbundling services is minimal. They may also indicate that adopting this option will impact the viability of the industry.

Mitigation Strategies

- Test the mapping and fee structure of the proposed schedule with high risk industry stakeholders through further in-depth consultations.
- Develop a detailed education and communication strategy for CSPs to advise them of the new schedule and claiming rules, including examples of complex client scenarios.
- Engage in compliance and monitoring activities in-line with the recently implemented Compliance Monitoring and Support Framework
- Work with the PPBs to incorporate the new schedule into professional training which highlights the benefits of greater flexibility for the practitioner.

Public Discussion Paper Feedback

- The simplification of the current schedule was seen as a priority for the majority of stakeholders.
- This model enables consumers to maximise their choice in all aspects of service delivery leading to better outcomes for clients as well as promoting greater competition for quality and efficient services amongst CSPs.
- Concerns were raised that unbundling may result in clients not receiving holistic or end-to-end care from their hearing professional.
- Services that the stakeholders considered essential in a new schedule included assessment/reassessment, device fitting, follow-up, rehabilitation, aid adjustment item, lost aid fitting and device fee, batteries, and maintenance.

4.2.2 Fee for service

Description

- CSPs would receive a fee-for-service based on an hourly rate with three claimable items to cover a range of service durations 30 minute consultation, 45 minute consultation, and 60 minute consultation.
- The types of services that would be claimable under this model would align with those listed in the PPB's Scope of Practice.
- Each voucher would allow CSPs to provide a capped value of services each year over the voucher period, regardless of whether a client has monaural or binaural hearing loss.
- CSPs would be required to document the type of service provided based on a list determined by the Department.
- The length of a service for a particular service type would be at the discretion of the practitioner to improve flexibility.
- Services could be claimed by an audiologist or audiometrist provided they aligned with the Scope of Practice developed by PPB. CSPs could also employ specialist rehabilitation counsellors who could provide support services to clients whose audiological and psycho-social needs are closely linked.
- Rehabilitation counsellors would not be able to provide any diagnostic assessments or fit clients with AHT.
- Under this approach there is the potential to apply a loading for complex clients, for example an additional 30% value to the annual cap.
- This option has the benefit of aligning closely to the NDIS model, hence minimising the potential disruption or confusion caused by the two schemes running concurrently.

Stakeholder Impacts

- CSPs have greater flexibility in the services they provide to clients.
- CSPs are remunerated more accurately for actual time spent with clients.
- For example if a CSP needs to reassess a client from a previous CSP, they could claim this time, provided the client still had the necessary value of services remaining on their voucher.
- Clients are not restricted by a specified service pathway.

Implementation Considerations

- The HSO and Department of Human Services e-Claims portals would need to be updated to reflect the new claimable items, additional reporting requirements and real-time tracking of annual voucher value.
- The range of services delivered under this approach could be self-regulated in line with Scope of Practice developed by PPB.
- Compliance audits of client vouchers would confirm services being provided aligned with the Scope of Practice.
- The Department could continue to collect data on the type of service and would also be able to collect more accurate information on the length of each service.
- Collecting data on the duration of services would allow the Department to be able to see how different CSP's service their clients and get an industry average for the time taken for specific services.
- Over time this data when combined with outcome measurement information could be used to encourage efficiencies across CSPs by fine tuning the hourly rate, and potentially manage cost pressures of the program.
- For example, introducing negative payments to CSPs which have above average service duration with below average outcomes.
- By also measuring the duration of each the service along with the type of service provided and changes in patient outcomes, over time the Department would be able to determine the approaches to service delivery which deliver better client outcomes.
- This option is directly comparable to the NDIS fee for service model and could use the NDIS maximum hourly fee as the hourly rate.

Key Risks

- There is the potential for CSPs to maximise the financial benefit they can receive from the government for each client by overstating the time they spend with each client. There is also a risk that CSPs spend the maximum allowable time with the client, not because of client need, but because it was of economic benefit to them.
- Client may use their annual budget early or inappropriately, thus putting pressure back on government to cover the difference or provide additional services.
- CSPs and industry associations may be reluctant to support this approach unless the Department can guarantee that the average value of services claimable per client is not reduced from the current arrangements.
- The level of administrative burden on CSPs may increase depending on the level of detail that the Department collects on services provided. This is most likely to impact independent audiologists and small to medium CSPs.

Mitigation Strategies

- Verify with industry that the proposed annual cap accurately reflects clinical best practice to assist clients achieve their desired communication needs.
- Develop a detailed education and communication strategy for CSPs to advise them of the structure of the new approach to delivering services under the VS.
- Continually monitor data on service type and duration to generate a CSP performance baseline and regularly audit CSPs which consistently report service times greater than the industry average.

Public Discussion Paper Feedback

- Many stakeholders appeared unconvinced by the potential benefits gained from the Fee for Service option.
- Concerns were raised regarding the risk of over-claiming due to the unpredictability in hours required by each client.
- Clients with complex needs may be disadvantaged if there is limit in the number hours that can be claimed per voucher.

4.3 Supply arrangements

One option for the HSP is to retain the current AHT supply arrangement. This would entail the continuation of all the major aspects of the supply arrangements that were first adopted in 1997. The Deed would continue to be periodically updated every couple of years, providing an opportunity to make gradual amendments to the conditions of supply and the minimum specifications.

The ways AHT are approved would also remain in its current form, with DMs being able to determine whether their partially-subsidised AHT warrant inclusion in the HSP. Clients would continue to benefit from access to the full AHT subsidy as long as the approved AHT is dispensed by an approved provider servicing the HSP. The Department would continue engaging in contractual arrangements with CSPs, and the major benefits and challenges of the current supply arrangement would remain.

The relationship and purchasing arrangements between CSPs and DMs would be expected to remain the same as they are now, with the Department fulfilling its role as the HSP administrator through regulating the entry requirement processes, claiming rules, and compliance requirements of the HSP. Changes to the supply arrangements would occur as needed, and remain reactionary to major trends affecting the VS.

Alternative models to change the status quo are discussed below.

4.3.1 Amendments to the Deed of Standing Offer

Description

- This option would update clauses in the Deed to help address the concerns around achievement of client outcomes, industry practices, and the mounting sustainability concerns facing the VS.
- The option could also include removing the partially subsidised schedule.
- Amendments to the Deed would include
 - removing the subsidy status for AHT on the partially subsidised schedule
 - reviewing the minimum specifications through a Standing Committee (or similar),
 - setting listing rules around the AHT age (i.e. if age of AHT exceeds a threshold, then it has to be removed) and usage requirements (i.e. if the number of AHT dispensed is not above a given threshold level, it is to be removed) for AHT on the schedule,
 - retaining the 5 year service clause once the AHT is taken off the schedules,
 - mandating the disclosure of a price range and features above minimum specifications for AHT on the schedules, and
 - renaming the schedules so as to remove reference to the subsidy status of the AHT.
- It would also entail an investigation into the scope and cost of including cost recovery measures by
 - charging a one-off levy to have an AHT listed on the schedules
 - charging an annual fee to keep the AHT listed on the schedules

Stakeholder Impacts

- With the removal of the subsidy, for AHT currently on the partially subsidised schedule, clients may notice changes in the range and prices of AHT, particularly if they previously accessed partially subsidised AHT.
- Clients would have better access to information about AHT if the Department decided to publish the reported data on the HSO portal.
- The Department may need to develop new capabilities to monitor performance.
- DMs may need to change operational procedures to accommodate the new clauses in the Deed. CSPs and DMs may change the operating model of their business to focus more on client outcomes. They would also need to adapt their strategies to accommodate the new disclosure requirements, for example, potentially increasing the competition for AHT.

Implementation Considerations

- The Department would need to undertake in-depth consultations with DMs to agree on the proposed changes to the Deed. A lengthy negotiation period may reduce the possibility of successfully implementing the proposed amendments.
- A consistent structure for disclosure requirements, including an escalation plan to manage non-compliance would need to be developed and tested with DMs.
- The Department should consider existing government fees currently paid by DMs, such as Australian Register of Therapeutic Goods (ARTG), when determining the potential charges for listing AHT on the schedules.
- Changes to clauses in the Deed may require legal advice to be sought by the Department where the capability is not available in-house.
- There may be a significant cost to establish and maintain a Standing Committee to review minimum specifications, with alternatives to the Standing Committee to be considered. This could include the Health Technology Assessment (HTA) branch.

Key Risks

- Negotiating the Deed amendments may be difficult, particularly if DMs are not convinced of the benefits of the new Deed to their profitability or current business models.
- The Department being unable to compel DMs to sign the Deed, particularly if the DMs believed they could maintain profitability by only operating in the private market. These DMs could walk away from supplying under the VS, which would reduce the range of AHT available to clients.

- If DMs felt this option negatively impacted their business, it is likely that they would argue that the change would reduce client choice and timely access to AHT.

Mitigation Strategies

- Undertake in-depth consultation with DMs to get their support for the proposed amendments to the Deed.
- Develop a detailed education and communication strategy for CSPs to advise them of the changes to the supply arrangements, and the availability of AHT information for through the HSO portal.

Public Discussion Paper Feedback

- Many of the stakeholders reacted favorably towards this option, assuming the partially subsidized schedule remained, due to the important role the Deed played in regulating the AHT supply arrangements. This reflects the view that the Deed ensures that DMs supply AHT that adheres to minimum specifications – a quality assurance measure that is associated with ensuring safety for clients acquiring AHT through the VS.

4.3.2 Market driven supply

Description

- A market-driven supply model would remove the Deed between the Department and DMs with minimum specifications, warranty repairs, and supporting services all dictated by the market.
- The current schedules of AHT would be removed and CSPs would receive a fixed rebate for all AHT dispensed under the VS.
- This option would allow clients to exercise the right to BYO AHT into the VS, with CSPs being allowed to claim the appropriate service item for fitting these BYO AHT. CSPs would not be allowed to refuse clients who have BYO AHT, unless there is a genuine operational reason for not being able to service the device.

Stakeholder Impacts

- There is the possibility that clients may face out-of-pocket costs due to CSPs not providing AHT at the price of the rebate, thus forcing clients to pay the gap between the rebate and the price charged by the CSP.
- Clients may access a greater range of AHT than currently available on the schedules. Competition would increase incentives for DMs to list the latest technology as soon as possible. Clients would be able to shop around for the best price of AHT.
- DMs would no longer be required to list AHT on a schedule, thus reducing the administrative burden for both DMs and the Department. DMs would continue to negotiate directly with CSPs on the price for an AHT.
- CSPs would receive a fixed rebate regardless of the technical specifications of the AHT and it would be up to the individual CSP to determine the price of the AHT to the client. CSPs would be responsible for ensuring that the AHT they prescribed to clients met minimum quality standards, as dictated by the market and consumer law.

Implementation Considerations

- The PPBs and industry associations could jointly develop and maintain a set of minimum quality standards. Compliance with these standards would be the responsibility of all industry members, but ultimately CSPs would be held accountable if a client was prescribed an AHT under the program that did not meet the standards.
- The Department would continue to conduct audits of CSPs and AHT listed on the market, however there would be no requirement for the Department to maintain a relationship with DMs.
- Aligns with the NDIS principles of adopting a market based approach.
- The Department could mandate the collection of data regarding the prescribed AHT from the CSP, however, this could be perceived as an additional regulatory burden.

Key Risks

- Clients who face out-of-pocket costs may potentially advocate against this option.
- When the Deed is removed and minimum specifications are self-regulated by industry, the Department loses visibility over the quality of AHT that are being provided under the VS. This could lead to the Department subsidising sub-standard AHT that do not achieve optimal client outcomes.
- There is the potential for CSPs to increase their focus on upselling to clients because they can make greater profit on a higher priced device if there is a fixed rebate.
- There is the potential for independent audiologists and small businesses to face a reduced capacity to compete in the market, relative to those who begin to consolidate or engage in vertical integration.
- This gap in competitiveness is increased where CSPs acquire AHT at below market cost from a DM.
- Large CSPs and DMs may not support this option because of implementation and ongoing self-regulation costs.

Mitigation Strategies

- In-depth industry consultation to establish a framework for determining the minimum quality standards to ensure they are at least on par with the current minimum specifications.
- Develop a detailed education and communication strategy for clients advising them of the new supply arrangements and their associated benefits.

Public Discussion Paper Feedback

- Many stakeholders questioned the safety of this model for clients due to lack of regulation of AHT entering the market and the potential of poor quality AHT adversely impacting clients.
- Allowing clients to import their own AHT may lead to complications if the client is not well informed, or if CSPs are unable to be service an imported AHT given the current restrictions on software.

4.3.3 Competitive tender

Description

- The Department would run a competitive tender process to procure AHT from a limited number of DMs.
- All AHT supplied through the VS would be procured under this tender arrangement. Fully subsidised AHT would be provided to CSPs at no cost to them.
- CSPs would purchase partially subsidised AHT from the Department at the tender price. CSPs would then be responsible for determining the price they charge clients for partially subsidised AHT.

Stakeholder Impacts

- Clients would experience a reduction in the range of AHT available and there would be delays in the time it takes for the latest technology to reach clients in the VS.
- CSPs which are linked to specific DMs may no longer be able to service VS clients if their linked manufacturer is not successful in the tender process.
- Administrative processes such as ordering of AHT will be easier for independent CSPs because they will only need to deal with one supplier of AHT, that being the Department, rather than multiple DMs.
- DMs will be most affected by this option as there is a possibility that not all will be successful tenderers. Whether there is enough demand in the private market for AHT to sustain DMs who are not successful in supplying to the VS is unknown. There is the potential that the size of the Australian AHT industry may reduce by implementing this option.

- A competitive tender process may reduce the long-term government cost associated with funding AHT for VS clients, but, at the same time, add administrative burden on government as the sole supplier of AHT.

Implementation Considerations

- The Department would first need to issue a notice to industry of their intention to move to a competitive tender arrangement. A competitive tender could then take place in line with the Commonwealth Procurement Guidelines.
- The Department would need to undertake significant work prior to issuing a request for tender. This may include market sounding, defining the scope of the tender, developing a framework for the supply of AHT to CSPs, undertaking a market information event to inform the market about the tender and proposed framework for delivery and issuing a pre-qualification questionnaire.
- The Department would need to develop the capability to manage the competitive tender and the ongoing contractual arrangements.
- Some aspects of the NDIS may be delivered through a tender approach and there is the potential for the NDIA to leverage such an arrangement. However, under the NDIS, tenders are likely to be for products which are high volume, single use, such as incontinence pads. For specialised products such as AHT, a tender model does not align with the NDIS principle of client choice.
- This approach may result in greater levels transparency and consumer literacy on AHT as the Department could publish the specifications and pricing of AHT purchased under the tender.

Key Risks

- Implementing a competitive tender can be very costly, and would represent a major disruption to industry. Implementation may require specific capabilities which the Department does not currently have.
- The Department would need to weigh up the initial implementation costs against potential long term savings from lower AHT prices.
- There is likely to be significant pressure from stakeholders (such as CSPs, DMs, and industry associations) to not adopt this option due to the possible adverse impacts on DMs and vertically integrated CSPs. They may argue their position on the basis that clients would experience worse outcomes under this option due to less choice and a reduction in the availability of AHT.

Mitigation Strategies

- Early industry consultation to circumvent strong opposition from industry.
- Develop a detailed education and communication strategy for clients advising them of the potential benefits of the new supply arrangements.

Public Discussion Paper Feedback

- A tender model could result in a restriction of choice and supply to the market by limiting the number of brands and models available through the VS, as well as the range of features available in AHT.
- A potential benefit is that it will likely deliver similar quality AHT at a lower cost to government, thus contributing to the sustainability of the program.
- Moving towards a tender approach would be a major disruption to industry and broadly move away from aligning with the principles of the AHT supply under the NDIS. It is also likely to result in changes to the industry structure and business models currently used.
- Stakeholders suggest that if a tender model is adopted it is most important that the selection criteria of value for money does not outweigh the quality of the product.
- Industry was generally against moving towards a competitive tender.

4.4 Support for reform

Analysis of the feedback received from the questions in the public discussion paper identified the level of support for particular types of reforms. The analysis found that most key

stakeholders believe that there needs to be improvements in current aspects of the HSP. It also found that major reform, which would replace current aspects of the HSP with different pricing or service delivery models, was not supported by stakeholders.

However, there was a lack of consensus as to which possible alternative models, presented in the public discussion paper, would be best placed to deliver desired changes and address the current sustainability concerns of the VS service delivery model.

Furthermore, analysis of the responses indicated a higher willingness to accept minor reform over major reform. This was particularly true for the Competitive Tender option to supply arrangements, which was seen unfavourably by a majority of stakeholders (including most CSPs, DMs, and industry associations) with only 19% of respondents believing that it would improve the current supply arrangements.

This also holds for the market supply option, with only 10% of stakeholders believing it would improve access to quality AHT for clients. And with only 33% of stakeholders indicating it would result in an improvement to the current arrangement.

Analysis of the findings clearly indicates a higher willingness for more gradual change, with certain alternative models considered to be too risky to implement in the Australian context.

To assist in the analysis of the stakeholder responses, the questions presented in the public discussion paper were grouped into key themes that reflected the underlying assertion that was being tested. The level of support, by assertion, is available at Table 11 below.

Table 11 Level of support of key stakeholders

Assertion being tested	Supportive ^{ccxxxv}
More can be done for client outcomes	61.5%
The schedule of services and fees can be improved	64.2%
There should be more of a role for rehabilitation	73.2%
The services delivered to clients are appropriate	68.3%
Supply arrangements are optimal	44.0%
There is a role for the continuation of a partially subsidised schedule	63.4%
Reliance on cross-subsidisation is of no benefit to clients	50.0%
Information clients receive is adequate	44.8%
The role of practitioners should be defined by government	30.4%
Major reform is required to improve the VS	27.3%

Responses to the public discussion paper that related to the current approach to service items and fees indicated that

- 71% of stakeholders agreed that the current schedule of services is too complex.
- 75% of stakeholders agreed that there is room to further streamline the VS.
- When comparing across service model options
 - 29% of stakeholders believed that the current service model does not provide sufficient flexibility.
 - 29% believed that fee for service would be a sustainable model, and
 - 42% believed that standardised fees should be considered and implemented

Responses In relation to the AHT supply arrangements highlighted that

- 53% of key stakeholders agreed with the current way the minimum specifications are administrated in the HSP.
- 46% of stakeholders believed that the current supply arrangements were sustainable.
- 92% of stakeholders saw the minimum specifications as a core part of the supply arrangements.
- 70% of stakeholders believed that the Deed is a vital instrument to ensuring the quality of AHT in the VS.
- 10% of respondents believed that the market driven supply option would improve access to quality AHT
- 36% of stakeholders indicated a willingness for the Department have a larger role in regulating the HSP.

- 61% of stakeholders (including all DMs, most CSPs, and industry associations) supported the notion of retaining a partially subsidised schedule in the supply arrangements of AHT.

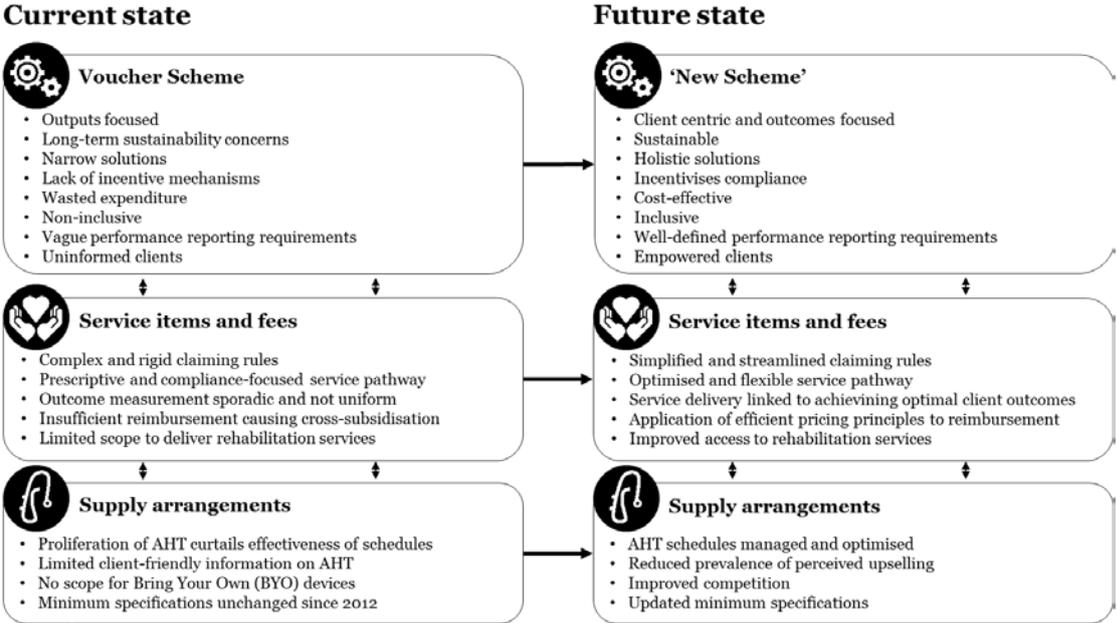
5. Recommendations

The current state of the VS service delivery model has enabled access to hearing services and AHT for eligible clients. However, mounting sustainability concerns arising from client growth due to population ageing, unethical industry behaviour, and non-usage of AHT have increased the importance of reforming the service delivery model to ensure government subsidised hearing services and AHT are effective over the long term. Addressing these factors will mitigate the propensity for inefficient spending, arising from clients receiving undesired hearing services and AHT they are likely not to use, in a way that generates the best ‘value for money’ – achieving optimal client outcomes with the most efficient spend possible.

The current service delivery model is limited in its ability to address the impacts associated with the aforementioned demographic, technological, and economic trends, raising questions around the capacity and efficacy of delivering high quality hearing services and AHT into the future. While certain changes have been made to aspects of the service model since its introduction in 1997, more can be done to mitigate these trends and enable a more sustainable future state.

Recommendations made in this chapter are cognisant of this reality. They are geared towards attaining a future state that is more sustainable, client centric, outcomes focused, and holistic in the delivery of hearing support (see Figure 11). The recommendations represent the steps necessary to develop a service delivery model, over the medium to long term, that is able to better support client outcomes, improve business processes, reduce administrative burden, deliver value for money, and support a consistent government approach to the provision of hearing services and AHT.

Figure 11 Current vs Future state



Developing a service delivery model that is capable of achieving the outcomes aforementioned is an appropriate and ambitious undertaking, and is likely to be attained over the medium to long term with minimal disruption to stakeholders. However, if too much urgency is placed on implementing major reform in the short term, there is the risk of dismantling well-functioning processes that clients and industry participants alike have grown accustomed to and draw a benefit from. Changes to these processes are appropriate, but should be measured and well communicated.

The recommendations below are broken down into three categories, those which apply to the VS as a whole, those applying to service items and fees, and those applying to the supply of AHT.

5.1 Scheme-level recommendations

Enabling a future state that addresses the range of issues identified in this review requires change that covers areas broader than the provision of hearing services and AHT. This ensures that any alternative models to service items and fees, and supply arrangements, are oriented towards becoming more client centric and outcomes focused.

This reflects the need to enable a streamlined and optimised approach to the administration and regulation of hearing support in the VS. Subsequently, it is recommended that the scheme

1. accelerate the transition towards an outcomes focused model
2. review the MHLT
3. improve the information about hearing services and AHT, and dissemination of this information, to clients in the VS
4. investigate the scope and cost of providing a range of additional services through the VS, and
5. change the name of the VS.

5.1.1 Recommendation 1 – Accelerate the transition towards an outcomes focused model

It is recommended that the Department, where possible, accelerate the transition towards an outcomes focused future state, by amending the policy objectives to focus on the achievement of optimal clinical outcomes for clients. Recognising there is currently no agreed approach to measuring client outcomes and that industry need to play a leading role in determining an industry wide standard, the Department should accelerate efforts and consultation with industry participants to

- define optimal clinical outcomes for clients
- set a standardised approach to measuring outcomes, and
- determine principles to facilitate comparison of outcomes across client cohorts and CSPs.

Greater clarity and definition around desired client outcomes should also assist in reducing ambiguity surrounding the objective of the HSP, as it relates to the VS, which currently is subject to several interpretations by government stakeholders.

There is a role for government to play in supporting the industry move towards an outcomes focused model, endorsing the appropriateness of the model, defining optimal outcomes, and incorporating these aspects into the operation of the VS and wider hearing programs. This is especially pertinent given that industry is currently unable to comparably evaluate whether an optimal client outcome has been achieved. This is indicated by the range of different measurement instruments currently used by practitioners, their lack of comparability, and the lack of consensus around what measurement instrument is best-suited for identifying whether clinical outcomes are being met.

With PPBs having recently implemented a Code of Conduct and Scope of Practice, and with William Demant Holdings, a major global AHT supplier, announcing that commissions would be based on client satisfaction surveys, the process of moving towards an emphasis on client outcomes is in its infancy. This trajectory can be expedited.

Given the market share of the VS in the Australian hearing services market, and the reported high levels of AHT penetration in Australia, the Department has a part to play in facilitating an expedited process to improve the maturity level of how hearing intervention effectiveness is evaluated. Amending the policy objective of the VS would help to do this, and work alongside the recently implemented Compliance Monitoring and Support Framework, to provide the necessary first steps for the Department to have the future capacity to engage in necessary

and constructive legislative change, make changes to clauses in the contract with CSPs, and amendments to sections in the Deed with DMs.

5.1.2 Recommendation 2 – Review the MHLT

The MHLT should be formally reviewed with the intention to investigate

- aligning the MHLT with international practice definitions of disabling hearing loss
- mandating the measurement and reporting of hearing loss via international and industry practice (4 FAHL), and
- applying the outcomes of the review to prospective clients.

Such a review would allow the scheme to incorporate a more salient approach to measuring and reporting hearing loss levels. It also targets the fitting of AHT to clients who have a level of hearing loss that would benefit from a hearing aid. This would minimise the propensity for inefficient spending associated with clients receiving fitting services that are undesired and AHT that they do not use. The review would be informed by the current MHLT (at greater than 23 dB 3FAHL in the ear being fitted) not aligning to internationally recognised definitions of hearing loss, as adopted by the WHO.^{ccxxxvi} As such, the review should determine whether it would be clinically appropriate within the Australian context to align the MHLT to internationally recognised definitions and potentially restrict hearing services and AHT to those with a particular level of hearing loss.

It is estimated that 29.2% of the clients who enter the VS would not be eligible for the AHT fitting if the MHLT was raised to the WHO's definition of disabling hearing loss (see section 5.4) – defined as 40dB 4FAHL in the better ear.^{ccxxxvii} However, it is recommended that any new threshold would only be applied to prospective clients seeking entry into the VS, in order to avoid existing clients losing access to services and AHT.

While this would reflect significant tightening of the eligibility criteria, it would also ensure that program resources are focused on those in greatest need and most likely to benefit from assistance. It would also mitigate some of the wastage that some stakeholders reported occurs when AHT are prescribed to patients with insufficient hearing loss, or the need for retesting of levels.

5.1.3 Recommendation 3 – Improve the information about hearing services and AHT, and dissemination of this information to clients in the VS

To address consumer hearing literacy concerns and enable clients to be more active in achieving optimal clinical outcomes, the scheme should provide client-friendly information that facilitates the objective comparison of AHT and services available through the VS.

Providing client-friendly information would empower clients by giving them access to information that contributes to better purchasing decisions. It also acts as a mechanism for practitioners and CSPs to reconsider the way they are approaching the pricing and provision of AHT, embedding competitive dynamics through increased information transparency in aspects of the hearing services market that currently exhibit limited publically available information. As a result, the likelihood of sub-optimal selection and allocation of AHT would be reduced.

To begin the process towards generating client-friendly information, the Department would need to undertake client centric research to understand the type of information required and the most appropriate channels through which to communicate this information. Specific areas of investigation would include how clients currently gather information, the information most valuable to them, what they perceive as trusted sources, how they currently make decisions, how these decisions are influenced, and how they interact with current information sources. This research would leverage qualitative and quantitative client research as well as current website analytics.

There are a number of information gaps which were raised during the stakeholder consultation, and through submissions received, which, if addressed could improve

information available to clients. The most apparent gaps, summarised below in Table 12 would need to be comprehensively tested through the initial client research.

Table 12 Potential data gaps in information on the AHT schedules

Data field	Rationale for addressing	Information provided by
Price range disclosure (Recommended Retail Price)	Greater price transparency encourages clients to compare prices of AHT and make more informed decisions about how to mitigate their hearing loss. Disclosure could reduce the price being charged for an AHT. ^{ccxxxviii} Informs clients about how prices vary across sets of features, and brands. Does not restrict client choice.	DMs/CSPs
Features above minimum specifications	Enables clients to better compare AHT across sets of features. Converts manufacturer marketing terminology to a comparable set of categories that align to the minimum specifications, and the set of features in the AHT that are above the minimum specifications.	DMs
Commission status	Informs clients whether the AHT could be subject to a sales commission when sold.	CSPs
'Star' rating of AHT	Further informs client decision making. Allows the Department to evaluate AHT with less than favourable ratings.	Clients/CSPs
'Open response' review of AHT	Allows clients to include comments about their experience of the AHT. Specifies areas where the AHT is meeting, or not meeting, expectations.	Clients/CSPs

Complementing the creation of user friendly information should be the focus on how this information is most effectively disseminated to clients. One area of specific focus during the initial client research should be the HSP website and the role this plays in conveying vital information to clients and other stakeholders. A potential review and re-design of the website would include the use of 'conversion funnels' that would help segment information users and allow them to access the information they need.

The potential website review and re-design would address some of the consumer literacy issues identified by stakeholders during consultations by consolidating information and streamlining its access. Additionally, the new site would reduce the complexity of navigating the 329 webpages currently on the HSP site,^{ccxxxix} mitigating one source of administrative burden.

Web analytics capabilities should be included to enable a more client centric approach to providing and disseminating information on the site. At a minimum, it is recommended that the new website retain or implement the following metrics

- Bounce rates (rate of visitors spending less than x seconds on the website)
- Exit rates (how many visitors left the website through a particular webpage)
- Paths taken by visitors, and
- Funnel conversion rates.^{ccxli}

Combined, these metrics allow the Department to evaluate the effectiveness of the manner in which information is disseminated through the website. It also allows the Department to identify what kind of information is highly sought after, by whom, as well as identify additional information gaps to remediate.

5.1.4 Recommendation 4 - Investigate the scope and cost of providing a range of additional services through the VS

There are a range of hearing services which currently fall outside the scope of the VS. It is recommended that the Department investigate the scope and cost of providing a range of additional services and benefits that could positively contribute to achieving optimal clinical outcomes for clients.

This includes

- interpreting and translating services for clients from non-English speaking backgrounds
- teleaudiology services for rural, remote locations, or where clients would benefit from access through a digital medium, and
- the application of a 'home-visit' loading to cover travel costs.

The inclusion of interpreting and translating services for VS clients requires audiology and audiometry to be listed as a medical speciality by the Medical Board of Australia so that clients can access the DSS funded TIS National service.^{ccxli} Alternatively, the Department could consider funding this service through the existing HSP appropriation. Such interpreting and translating services are available in a range of medical contexts such as pathology, rehabilitation medicine, and general practice.^{ccxlii} However, access to these services are not established for the allied health sector.

Government supported hearing reimbursement programs, such as the NDIS, those funded by the DVA, and some State based workers' compensation schemes either provide access, or are planning to provide access, to translating and interpreting services. As a result, the absence of interpreting and translating services in the VS is increasingly becoming somewhat of an anomaly, particularly for a Federal government program.

Funding teleaudiology should also be considered given that telehealth is increasingly playing a larger part in other government supported programs such as the MBS, NDIS, and those funded by the DVA. While funding for teleaudiology is currently not explicit in these programs, there is merit in determining whether funding should be made available in the VS. Particularly with teleaudiology reported to be capable of reducing barriers to optimal care for those clients in underserved areas (such as rural and remote locations), and possibly address known labour shortages for audiologists in Australia.

In a similar vein, the reimbursement for travel costs should also be considered. The NDIS and multiple State based workers' compensation schemes currently reimburse the costs borne by practitioners who have to travel to provide services to their clients. Additionally, the NDIS has made a loading available for those practitioners who provide services to clients in rural or remote areas. Such a stance should be evaluated for its applicability in the VS, informed by the current geographical dispersion of CSPs operating within the scheme. As it stands, the VS has over 50% of its permanent and visiting sites in regional or remote areas.

The data around the cost associated with introducing these additional services (interpretation and translation services, servicing through digital mediums, and reimbursement for travel costs) is limited or does not exist, making it difficult to accurately model the actual financial impact of implementation. Some information does exist on the cost to provide translating and interpreting services,^{ccxliii} however, no conclusive study has looked at demand forecasts for these services in the VS. It is also noted that similar services have also led to steep cost increases in other programs. Hence, it is recommended that incorporating these benefits into the VS be considered and analysed further prior to a decision being made. Part of the consideration should be whether the introduction of funding for such specialised services may be more appropriate in the CSO initially, in order to gauge whether the additional funding resulted in greater access to services for clients.

5.1.5 Recommendation 5 - Change the name of the VS

Changing the name of the VS is consistent with the shift towards an outcomes focused future state. It would allow the scheme to move away from the notion that it is the voucher itself that

provides the benefit, instead of the appropriate and timely delivery of hearing services and provision of AHT, to motivated clients who are willing to address their hearing loss.

From a behavioural stand point, changing the name of the scheme would minimise the current perception that all benefits of a voucher are to be used, regardless of the impact they have on achieving optimal client outcomes.

The name change should be cognisant of the new policy objective of the scheme, and be tested with representatives of key stakeholders groups. Testing the name change, prior to adoption, will ensure that the name is conducive to the notion of achieving optimal client outcomes.

5.2 Recommendations specific to service items and fees

The following recommendations propose the introduction of a simple standard suite of hearing service items with an associated benefit (the recommended prices). These recommended prices reflect publicly available information on the types and prices charged for services offered by the hearing sector, the NDIS, and similar services of related allied health sectors.

Recommendations include

1. adopting the simplified and unbundled model for the schedule of service items, and
2. adopting a new pricing structure for the simplified and unbundled model of service items.

5.2.1 Recommendation 6 – Adopt the simplified and unbundled model for the schedule of service items

It is recommended that a simplified and unbundled schedule of service items be adopted to simplify the clinical pathway, reduce administrative burden, mitigate the prevalence of wasted expenditure, and highlight the role that hearing services play in helping achieve optimal client outcomes. This is achieved by ensuring that services are received by those clients who most need them, streamlining the claiming rules, and providing a means to delay the provision of an AHT where it is clinically appropriate (see Appendix E).

As described in the analysis of alternative models, this option consists of four broad changes relating to the

- number of service items (reduced from 48 to 4, with fitting and maintenance having variants dependent on whether they relate to monaural or binaural situations)
- service delivery pathway (catered to assessing the readiness to delay the provision of an AHT, where appropriate), and
- claiming principles (embedded with an increased degree of flexibility).

While it is recognised that AHT is the primary intervention to deal with hearing loss, simplifying and unbundling of services can allow rehabilitation and support to have a more prominent role in the VS. This is important for a number of reasons.

- Increased rehabilitation and support can contribute meaningfully to the achievement of optimal client outcomes in a way that is
 - attuned to the readiness of the client to receive an AHT, and
 - that is aware of the need to access an additional layer of support to make the most out of their hearing intervention (see finding 4).
- Combined with the recommendation to review raising the MHLT, the provision of rehabilitation and support provides an avenue to deliver services that optimise the hearing outcomes of VS clients who may not be motivated to use their AHT.
- CSPs reported providing ongoing support to clients that could not be captured within the current schedules. While this placed additional pressure on their businesses, it led to clients being better able to use their AHT. Some CSPs provided these necessary supports because they saw it as part of quality customer service, while other CSPs with stricter booking procedures were less able to provide these services. Recognising this support in the schedule will value these services provided by some CSPs and ensure

that rehabilitation and support services are incentivised in a way that can standardise the benefit for clients regardless of CSP.

- While rehabilitation services are provided through the current schedule, very few clients pursue this pathway. This is an indication that more needs to be done to address the flexibility around claiming, the remuneration around these services, and the extent to which clients are educated on the benefits derivable from engaging with rehabilitation and support. This is supported by the findings of the ‘Review of the Rehabilitation Plus program’ and the recommendation to increase the focus on psycho-social and functional aspects of aural rehabilitation.^{ccxliv}
- Including rehabilitation within the simplified and unbundled schedule is designed to ensure that there are no distortions within the schedule and that pricing is set to broaden the clinical pathway or types of services that clients have access to. It would also increase the probability that successful communication will occur between a hearing-impaired person and their verbal environment. The schedule is also designed to complement and enhance the benefits of an AHT by providing the appropriate psycho-social support at any point preceding, during, or after the AHT is provided to client. It will help to address current gaps in the services delivered by improving non-device dependent communication, embed ways to increase self-efficacy (i.e. a person’s confidence), and increase motivation in a way currently not captured.

Further details about what forms a part of the simplification and unbundling of services can be found in the analysis of alternative models (see chapter 4). Steps to facilitate the implementation of this model are available in the high level implementation plan and risks section.

5.2.2 Recommendation 7 – Adopt a new pricing structure for the simplified and unbundled model of service items

The fees recommended for each hearing service in the simplified and unbundled model of service items have been determined through a comprehensive scan of the Australian hearing services market (including the public and private sectors). The aim of the prices is to determine an efficient level of pricing which reflects the value of the specific service provided and attempts to remove or mitigate the current need of CSPs to cross-subsidise a loss in the provision of services with the prescription of an AHT and associated bundled services. The finding that a range of hearing services in the VS were priced at below market value has informed the increases in the new pricing structure.

The recommended prices are shown below at Table 13.

Table 13 New pricing structure for the simplified and unbundled schedule of services (inc. GST)

Item	Old price (\$)	Recommended price (\$)
Assessment	134.35 ^a	180
Rehabilitation and support	156.12 ^b	170
Fitting (monaural)	429.39 ^c	150
Fitting (binaural)	538.32 ^d	225
Maintenance (monaural)	72.77 ^e	113
Maintenance (binaural)	192.68 ^f	170

Notes

All figures expressed in FY2015-16 prices.

- Price for service item 600 in schedule of fees 2015-16.
- Average price for service items 670, 680, and 681. For the price relating to 681, it was assumed that it was claimed twice.
- Price reflects item 630.
- Price reflects item 640.
- Price reflects item 700.
- Price reflects item 710.

Incentivising the provision of hearing services by increasing the benefit claimable by CSPs will work to limit the number of hearing services that are currently reported as being provided at a loss. For the Department, it helps to limit the sources of wasted spending by identifying those clients who are not ready for an AHT, and providing them with an alternative pathway that can delay the acquisition of an AHT, where appropriate. A stronger price signal for rehabilitation reflects this, leading to less fittings for clients who are not ready for an AHT. This is particularly valid where the client has limited motivation or willingness to use the AHT. In this instance, they are better suited to undergo hearing rehabilitation and support.

There are a number of characteristics associated with this recommended pricing schedule that provides the Department with future optionality.

- The market driven prices align relatively closely to the current NDIS maximum hourly rate of \$175.57. While assumptions have been made (and validated by the Department) about the length of each of these new services, the broad alignment with NDIS means that there should be limited arbitrage or distortions created in the market by financially incentivising the provision of one group of clients over another.
- This broad alignment also means that, should a shift to more closely mirror NDIS pricing be required, the transition from an industry perspective will be smoother.
- An option does exist to adopt the \$175.57 NDIS rate across all relevant service items in the newly simplified and unbundled services to ensure there is no difference between programs for comparable prices.
 - However, this was not adopted due to the
 - slight differences in prices for services identified in the market scan
 - broader stakeholder uncertainty around the NDIS scheme, and
 - potential for such an option to negatively impact industry's approval for the recommended simplified and unbundled schedule of services and associated fees.
- Optionality exists within this pricing schedule to specify set units of time for each service item. For example, rehabilitation and support, and maintenance may be specified within 30 minute blocks, rather than one single block. Depending on the needs of the client, this could be taken as two 30 minute blocks for more complicated maintenance or rehabilitation, or one 30 minute block for simple maintenance or ongoing support. In implementing this model, it is important to recognise the role the Department will play in determining how CSPs are able to incorporate rehabilitation and support into their delivery of hearing services. As rehabilitation and support is likely to constitute a range of services, which would differ in terms of resources and length, claiming rules should reflect this by allowing a portion of the benefit to be claimable to the extent that it corresponds with the rehabilitation and support provided.

In relation to the supply of batteries, the service items 700 and 710 have been factored into the fees for the simplified items maintenance (monaural) and maintenance (binaural). Clients, unless exempt, would continue to pay the annual hearing aid maintenance charge for maintenance and battery supply and the hearing devices replacement fee that would not have been covered by items 555 and 888 under the current schedule.

The range of miscellaneous service items under the current schedule (items 1, 2, 4, 5, 555, 777, 840, 850, 888, and 960), which relate to manual payments (including AHT replacement services) have been factored into the fee and structure of the simplification and unbundling of services. This means that the recommended schedule of services and fees have been set to adequately remunerate CSPs so that they can provide these miscellaneous items without the need for the Department to subsidise their delivery. This also makes the provision of these miscellaneous items one possible source of competitive advantage, with CSPs being differentiated on their willingness to engage in the provision of miscellaneous services (see Appendix E for the fiscal impact associated with this approach).

For the provision of services to rural and remote areas it is recommended that targeted policies or practices be adopted that look to leverage current CSO and future NDIS activity in these areas. These should be developed on a case-by-case basis. Analysis of current CSPs locations suggest a good level of coverage in most regional and rural areas of Australia

(representing close to 50% of all permanent and visiting sites in FY2015-16). Furthermore, current CSO arrangements and claimable items in the MBS provide services to the most vulnerable of clients in areas where there is insufficient coverage.

There is likely to be a small cohort of current or potential VS clients who are in rural and remote areas that are not covered by CSPs but are not eligible for the CSO scheme. It is recommended that the needs of these clients are addressed via targeted policies rather than the blunter approach of altering the pricing structure to providing a rural or remote loading to incentive coverage of these areas.

It is recommended that there be no explicit difference in pricing based on the qualification of the practitioner. The Scope of Practice for qualifications within the industry is determined by the respective PPBs. Pricing should be focused on the specific service or outcome received by clients under this Scope of Practice. To the extent that there is discussion around the recognition, remuneration, and recruitment of practitioners with different qualifications, these should be addressed in the industry Scope of Practice, not through the pricing of services provided on behalf of government for one specific program. Additionally, an explicit difference in pricing based on qualification may further disrupt the labour shortages currently evident for audiologists, by distorting the incentives surrounding the supply of audiologists and audiometrists.

5.3 Recommendations specific to AHT supply arrangements

The following recommendations support the transition towards an alternative supply model that helps to support the achievement of optimal client outcomes, improve business processes, and reduce the administrative burden associated with the way AHT is provided to the VS. These recommendations are aligned towards making amendments to the Deed, an alternative explored in the analysis of alternative models chapter.

Recommendations associated with amending the Deed include

1. removing the subsidy applicable to partially subsidised AHT
2. reviewing the minimum specifications
3. investigating the viability of including cost recovery levies
4. implementing additional AHT listing rules
5. mandating the disclosure of the price and features above minimum specifications for AHT, and
6. renaming the AHT schedules.

5.3.1 Recommendation 8 – Remove the subsidy applicable to partially subsidised AHT

The VS is a safety net to ensure that those most in need and the vulnerable of the Australian community have access to hearing services and AHT. It can be argued that it is not the role of the VS to subsidise specific client choice, if such clients seek access to features or technology which is greater than the government has determined is sufficient to deliver an optimal clinical outcome.

While clients should be free to exercise this choice should they feel it is appropriate, this should not be funded at tax payer's expense. Hence, this recommendation does not limit the range of AHT clients can choose to purchase under the VS, but it does limit the AHT that the government will pay for under the VS. This is done by retaining the partially subsidised schedule (albeit under a different name), but not the subsidy associated with it, in order to reassure clients of the quality and safety of AHT available through the VS.

Removing the subsidy for partially subsidised AHT should also help address the areas of concern raised around industry practices and the upselling of AHT to vulnerable clients. When implemented alongside recommendation 3 and 9, a situation is created whereby

clients are more informed and able to have free access to improved AHT functionality, creating a financial disincentive for the client, which counterbalances potential efforts to 'upsell'. Instances of pressured 'upselling' may still exist, but under these conditions they would be driven by the direct behaviour of the CSP, and be dealt with through appropriate compliance mechanisms. This would represent a contrast to the current conditions where information asymmetry can have an impact on the ability of CSPs to undertake price-based 'upselling', capitalising on a lack of information transparency between pricing and the AHT recommended by the CSP.

Together, these recommendations look to raise the minimum specifications of AHT accessible to the majority of HSP participants and address incentives that have led to documented industry practices which do not support optimal client outcomes.

5.3.2 Recommendation 9 – Review the minimum specification

The Department should engage in a review of the minimum specifications applicable to fully and partially subsidised AHT available through the VS. In doing so, the Department will be responding to observable industry and client trends that have indicated an increasing propensity to consume partially subsidised AHT.

Similar to the decision made by the Department in 2004-05 to include digital technology in the fully subsidised AHT schedule, the current set of technical features should be revisited to make the most out of advances in processing power, self-adjustment technology, and wireless connectivity capabilities. And these technologies should become standard in fully subsidised AHT where possible to avoid future misconceptions about the inferior quality of fully subsidised AHT.

With recommendation 8 advising the removal of the subsidy for AHT on the partially subsidised schedule, broader savings across the VS could be used to expand in the current range of features available through fully subsidised AHT. Hence, this is not a recommendation aimed at generating cost savings. Rather, it is a measure that looks to address certain industry practices and revise the quality and functionality of AHT available to the majority of clients.

In determining an appropriate range of minimum specifications, it is advised that a Standing Committee be set up with members representing subject matter experts, government, and industry. This will expedite the process of transitioning towards an implementable set of minimum specifications, which have not been updated since 2012.

One area for the Standing Committee to focus on is reaffirming the industry standard that all AHT supplied through the VS have three year warranties. This removes incentives in warranties provided between CSPs and DMs, and provides a consistent layer of consumer protection. However, a challenge in implementing this is noted, given the current warranty arrangements and the need to honour these, with added complexity introduced by clients who have sourced an AHT from overseas.

5.3.3 Recommendation 10 - Investigate the viability of including cost recovery levies

To identify ways to improve the effectiveness of the AHT schedules, introduce price signals, and fund greater device information being provided to clients, it is recommended that the viability of implementing cost recovery levies be investigated by the Department. Any investigation should consider the regulatory burden associated with imposing the levies, and compare this burden to the benefits derived from better informing clients and incentivising DMs to keep the AHT schedules up-to-date.

Similar to the process adopted by the Therapeutic Goods Administration (TGA) to recover its costs through fees and charges for activities that fall within the scope of their duties under the *Therapeutic Goods Act 1989*,^{ccxiv} it is recommended that the Department investigate the scope and regulatory impact associated with charging DMs

- a one-off levy to list an AHT on either the fully or partially subsidised schedules, and
- an annual maintenance fee to retain an AHT on the fully or partially subsidised schedule.

As part of this process, the Department will need to undertake costings that identify the administrative outlay associated with monitoring the AHT schedules. Given that the number of AHT available through the schedules is 1,645,^{ccxlvii} introducing cost recovery measures could reduce the administrative burden of maintain the schedules and be used to ensure clients receive the most appropriate information to inform their AHT decisions.

5.3.4 Recommendation 11 – Implement additional AHT listing rules

Implementing additional listing rules would improve the effectiveness of the schedules by setting age, usage, service requirements, and other disclosure requirements for AHT to remain listed. This will incentivise DMs to keep the schedules up-to-date, while also improving the value that clients and other parties draw from sourcing AHT information from the schedules. These rules would be included in the Deed and state parameters that are to be complied with.

As a minimum, the Deed should contain clauses that indicate listing rules around delisting AHT that do not meet

- AHT age requirements (i.e. if the age of AHT exceeds a particular threshold, then it has to be removed from the list), and
- usage requirements (i.e. if the AHT is not dispensed over a given period of time, and above a particular threshold, then it is to be removed from the list unless it is a specialised AHT targeting specific client needs).

It is also recommended that any future changes to the listing rules retain the 5 year service guarantee to ensure that clients are able to continue receiving adequate support for the AHT they purchased in the period immediately after it has been delisted.

5.3.5 Recommendation 12 – Mandate the disclosure of the price and features of AHT

Improving the ability of clients to make informed decisions is vital to achieving optimal client outcomes. Amending the Deed to mandate the disclosure of price and features above the minimum specifications will improve the transparency of information around how prices vary across sets of features and brands. Disclosure of this information will also cultivate competition by ensuring that clients and CSPs are better able to compare AHT through categories that align with those available in the updated minimum specifications.

In amending the Deed, clauses should be added that make the disclosure of comparable information on AHT pricing and features

- mandatory
- occur at the same time as an AHT is listed, removed, or migrated from the schedule, and
- applicable to both the fully and partially subsidised schedules.

While this represents a slight shift away from the current information requests made on DMs, precedence exists to support the inclusion of such a requirement. The Pharmaceutical Benefits Scheme reforms package (commenced August 2007) have required companies to submit sales information to the Department on a bi-annual basis.^{ccxlviii} This has included information around the pricing of the pharmaceutical goods. In this sense, it would not be dissimilar to requesting DMs to provide the Recommended Retail Price for AHT listed on the schedules. This recommendation is a specific mechanism that complements recommendation 3, improving the information available to clients.

5.3.6 Recommendation 13 – Rename the AHT schedules

Renaming the AHT schedules would move away from the current focus on the subsidy status of AHT as the predominant characteristic of emphasis. It would allow the scheme to shape the way clients conceive of AHT by highlighting alternative characteristics in line with minimum specifications, which would be better aligned with the policy objective identified in Recommendation 1.

5.4 Fiscal impact

The projected fiscal impact of adopting the recommendations which have the greatest impact on the program costs (i.e. reviewing the MHLT, implementing the simplification and unbundling of services, and removing the subsidy for partially subsidised AHT) is outlined below. This is designed to give decision makers clarity around the trade-offs that need to be made when considering these recommendations.

Importantly, all modelling and projections rests upon data inputs received from the Department, information obtained from stakeholders, and assumptions made on the future impact of the recommendations. In many cases, the information used is also of a commercially sensitive nature. Throughout the project, mechanisms have been put in place to preserve the confidentiality of stakeholders and ensure the appropriate use of HSP data.

Results are presented with an upper bound only (in the case of the simplification and unbundling of services) and an upper and lower bounds (in the case of removing the subsidy for partially subsidised AHT), which reflect the plausible potential outcomes associated with the recommendation.

These bounds are based on sensitivity tests undertaken on demand, pricing, service mapping, and assumptions. All results should be interpreted as the plausible range as opposed to their projected impact, which is included simply as a reference point.

The fiscal results indicate that a range of trade-offs need to be considered when adopting the recommendations. Simplifying service items and fees and aligning the new prices with the market results in an increase in HSP expenditure. This increase can be offset by removing the partially subsidised device schedule, making the total HSP costs broadly budget neutral.

However, if further changes to the program that increase costs are to be pursued, such as raising the minimum specifications on AHT, then savings from measures that include re-aligning the MHLT to international standards should be considered.

5.4.1 Adjusting the MHLT

The impact of changing the MHLT from 3FAHL to 4FAHL is shown below in Table 14. This indicates that if the VS threshold was raised to international comparators of, for example, 40 dB 4FAHL, 29.2% of the current client base would be ineligible.

Using the current population eligibility as a guide and estimated new clients per annum, the estimated annual saving in FY2019-2020 would be in the order of \$18.9m.

Table 14 Estimated fiscal impact of raising the Minimum Hearing Loss Threshold in the VS ^{a,b}

Proposed 4FAHL threshold (\geq dB) ^c	Clients ineligible in FY2015-16 (%) ^d	Estimated saving in FY2019-20 (\$m) ^e	3FAHL equivalent (>dB, left ear, 50 and over) ^f	3FAHL equivalent (>dB, right ear, 50 and over) ^f	3FAHL equivalent (>, both ears, under 50) ^f
31	0.3	0.2	23.5	24.0	29
32	3.4	2.2	24.6	25.1	30
33	5.9	3.8	25.7	26.2	31
34	8.4	5.5	26.8	27.4	32
35	12.8	8.3	27.9	28.5	33
36	14.9	9.7	29.0	29.6	34
37	19.7	12.8	30.2	30.7	35
38	20.2	13.1	31.3	31.8	36
39	24.5	15.9	32.4	32.9	37
40	29.2	18.9	33.5	34.1	38
41	31.9	20.7	34.6	35.2	39
42	34.4	22.3	35.7	36.3	40
43	36.9	24.0	36.8	37.4	41

Proposed 4FAHL threshold (\geq dB) ^c	Clients ineligible in FY2015-16 (%) ^d	Estimated saving in FY2019-20 (\$m) ^e	3FAHL equivalent (>dB, left ear, 50 and over) ^f	3FAHL equivalent (>dB, right ear, 50 and over) ^f	3FAHL equivalent (>, both ears, under 50) ^f
44	41.4	26.8	38.0	38.5	42
45	43.5	28.2	39.1	39.6	43
46	48.3	31.3	40.2	40.8	44
47	48.8	31.7	41.3	41.9	45

Source

Department of Health and PwC Analysis.

Notes

- Assumes that all clients represent an identical share of VS total expenditure in 2015-16, regardless of the severity of their hearing loss as measured in decibels (dB) and a Frequency Average Hearing Loss (FAHL) level in the ear being fitted.
- Clients losing eligibility performed at a whole-of-scheme level, meaning that the proportion of clients losing eligibility stated here will not be uniform across age groups.
- The proposed 4FAHL threshold is taken to mean greater than or equal to the decibel value stated (e.g. if the 4FAHL value is 31 dB, then the client needs a measurement of at least 31 dB 4FAHL to be eligible for the VS).
- The percentage of clients ineligible under the revised MHLT is estimated by calculating the better ear hearing score for all clients who received a service or device in the 2015-16 payment year. It excludes any missing values. Each client's measured 3FAHL is converted to a 4FAHL using a conversion formula based on the age of the client and whether the measurement is the left or right ear. The percentage of clients ineligible is the number of clients whose 4FAHL does not qualify under the new MHTL divided by the total number of clients.
- Estimated saving methodology assumes that the old settings will be grandfathered so that raising the MHLT will only affect new clients, not existing clients. To calculate this figure, estimate the number of new clients in FY 2019-20, based on Health's population model. Use this to calculate the percentage of total clients in 2019-20 which are new. Multiply the percentage of new clients in 2019-20 by the proportion of clients which would be ineligible under the new MHLT. This gives the total percentage of total clients in 2019-20 which would no longer be eligible for hearing services under the new MHLT. Multiply this by total program expenditure forecast in 2019-20 to estimate the saving.
- Possible savings in FY2019-20 are expressed in FY2015-16 dollar terms. It indicates the annual saving for that financial year only, if the eligibility criteria were changed immediately prior to the commencement of that financial year.
- 3FAHL equivalent may not actually be measurable to one decimal place, and is taken to mean greater than the decibel value stated (e.g. if the 3FAHL equivalent is 23.5 dB, the client must have measurements of at least 23.6 dB 3FAHL to be eligible for the VS).

Importantly, the impact of changing the MHLT has been modelled in isolation. This means that the subsequent modelling of recommendations to simplify and unbundle services and amend the Deed do not assume these changes to the MHLT have taken place, and hence, reduced future eligibility for the HSP.

5.4.2 Service item and AHT impacts

The impact of adopting service items and AHT recommendations has been modelled using the current MHLT thresholds to assure consistency and transparency. Should the MHLT be adjusted, the fiscal impacts below will alter.

The impact of reviewing the minimum specifications has also not been explicitly modelled. The key assumptions around the new specifications need to be determined by the Standing Committee, with pricing determined subsequently.

Table 15 demonstrates the midpoint impacts of each of the recommendations compared to the current expenditure.

Table 15 Estimated VS spend associated with the recommended future state (FY2015-16)

Recommendation	FY15-16 spend	FY15-16 spend under recommended option		
		Lower boundary	Projected impact	Upper boundary
Simplification and unbundling of services	\$241.3	N/A	\$278.9m	\$400.6m
Amendments to the Deed	\$171.4m	\$124.0m	\$139.1m	\$154.2m
Total	\$412.7m	N/A	\$418.0m	\$554.8m

Source

Department of Health and PwC Analysis.

Notes

Total expenditure is the expenditure, in real terms, associated with providing hearing services and AHT to eligible clients in the VS. It does not include departmental costs to administer the VS.

All figures expressed in FY2015-16 prices.

See Appendix F for details on approach to modelling estimated VS expenditure associated with the recommended future state.

The upper boundary of the simplification and unbundling of services assumes the same service pathway as in the projected impact scenario (see Appendix E). However, it allows for benefit-maximising behaviour and additional flexibility to claim rehabilitation and support at different points in the pathway. As such, the upper boundary is 43.7% above the projected impact scenario.

The range between the projected impact and upper boundary was used to capture a number of key sensitivities which include

- assumptions around the mapping of services from the old schedule to the new simplified schedule
- the uptake of rehabilitation and support services (both in terms of total volume but also timing), and
- potential industry behaviour in responding to the changing schedule and prices.

The key sensitivity used to inform the upper and lower bounds of the amendments to the deed is the number of clients likely to switch from a partially subsidised to a fully subsidised device under the recommendation. Currently, 32.8 % of AHT under the VS are partially subsidised. Of this proportion of clients, the following assumptions are made to reflect the upper and lower bounds

- Lower bound – 14% of clients switch from a partially subsidised to fully subsidised device.ccxlviii
- Upper bound – 69% of clients switch from a partially subsidised to fully subsidised device.ccxlix

The reported projected impact reflects the mid-point between the upper and lower bound.

With the recommendations expected to be implemented from 1 July 2019, the longer term fiscal impacts are detailed below in Table 16.

Table 16 Estimated VS spend associated with the recommended future state (real terms, FY2019-20 to FY 2025-26)

Recommendation	FY19-20 to FY25-26 spend	FY19-20 to FY25-26 spend under recommended option		
		Lower boundary	Projected impact	Upper boundary
Simplification and unbundling of services	\$1,879m	N/A	\$2,147m	\$3,093m
Amendments to the Deed	\$1,339m	\$979m	\$1,094m	\$1,209m
Total	\$3,218m	N/A	\$3,241m	\$4,302m

Source

Department of Health and PwC Analysis.

Notes

Total expenditure is the expenditure, in real terms, associated with providing hearing services and AHT to eligible clients in the VS. It does not include departmental costs to administer the VS.

All figures expressed in FY2015-16 prices. See Appendix F for details on approach to modelling estimated VS expenditure associated with the recommended future state.

5.5 High level implementation plan and risks

5.5.1 Implementation plan

At a high level, implementation activities have been identified to facilitate the transition from the current state to the future state, and have been geared towards the attainment of a high level implementation objective that is attuned to the budgetary process of the 2018-19 cycle (see Figure 12) and an expected completion date of 1 July 2019. Where an activity is related to a recommendation that is likely to be implemented after this completion date, but can be undertaken in the period leading up to the completion date, it has been included as part of this implementation plan.

Figure 12 High level implementation objective

Secure funding in the 2018-19 budget cycle to facilitate the implementation of recommended changes to the service delivery model over the period to 1 July 2019 that can better support client outcomes, improve business processes, reduce administrative burden, deliver value for money, and support a consistent government approach to the provision of hearing services and AHT.

The high level implementation objective consists of the following lower level implementation objectives, which have been allocated to particular work streams (see Table 17).

Table 17 Lower level implementation objectives

Stream	Objective
Budget alignment	Comply with internal and external requirements to secure funding in the 2018-19 budget cycle.
Objective	Re-orient the objective of the scheme to focus on achievement of optimal clinical outcomes and making CSPs accountable for their achievement.
Access	Re-evaluate the way incumbent and prospective clients are able to access the scheme by incorporating principles of sustainability, equity, and efficiency into eligibility requirements and subsequent criteria to access hearing services and AHT.
Service Delivery	Implement a simplified and unbundled service schedule and amend the Deed to ensure the continuation of world class care that is sustainable and aligns with the purpose of the scheme.

Stream	Objective
Rules	Update the rules of the scheme to incentivise the clinically appropriate delivery of holistic hearing solutions that minimise administrative burden and maximises the ability to provide high quality services and AHT.
Data	Improve the collection, quality, availability, and dissemination of data and information surrounding the scheme.

5.5.2 Implementation activities

In order to implement the recommendations described above, activities (see Table 18 to Table 23 below) have been developed for each of the lower level objectives described above.

Table 18 ‘Budget alignment’ activities

<p>1. Comply with internal and external requirements to secure funding in the 2018-19 budget cycle.</p>
<p>1.1. Brief Minister on recommendations of report and secure approval to undertake Regulatory Impact Statement (RIS) consultations.</p> <p>1.2. Undertake RIS consultations.</p> <p>1.3. Seek Ministerial approval for changes to be considered in the 2018-19 budget cycle by undergoing necessary internal budget processes.</p> <p>1.4. Develop early draft of the New Policy Proposal (NPP) and identify whether an Information and Communications Technology (ICT) first pass business case is required.</p> <p>1.5. Engage with the Strategic Policy Review committee.</p> <p>1.6. Cost the impact of policy changes and quantify direct and indirect cost savings.</p> <p>1.7. Action external costing request to the DHS to identify cost to implement ICT changes to the e-claim portal.</p> <p>1.8. Draft long-form RIS and submit to the Office of Best Practice Regulation (OBPR).</p> <p>1.9. Request funds to implement changes, and engage in policy and costing iteration process with the Department of Finance (DoF).</p> <p>1.10. Submit appropriate documentation to the Expenditure Review Committee (ERC).</p> <p>1.11. Evaluate budget allocated for implementation and re-scope project accordingly.</p> <p>1.12. Secure and operationalise funding.</p>

Table 19 ‘Objective’ activities

<p>2. Re-orient the objective of the scheme to focus on achievement of optimal clinical outcomes and making CSPs accountable for their achievement.</p>
<p>2.1. Prepare internal policy change documentation and secure approval.</p> <p>2.2. Determine extent of consultations required internally across government, and externally with experts and interested stakeholders.</p> <p>2.3. Undertake consultations with industry to begin defining optimal outcomes, standard measurement approaches, and principles for comparison.</p> <p>2.4. Identify and establish compliance benchmarks around desired industry behaviour.</p> <p>2.5. Evaluate alternative names to the VS.</p> <p>2.6. Test name change with participants.</p>

Table 20 'Access' activities

3	Re-evaluate the way incumbent and prospective clients are able to access the scheme by incorporating principles of sustainability, equity, and efficiency into eligibility requirements and subsequent criteria to access hearing services and AHT.
3.1.	Set up standing committee.
3.2.	Review MHLT.
3.3.	Develop communication plan to inform stakeholders of upcoming changes to 'access' factors.
3.4.	Investigate the scope and cost of providing interpreting and translating services, teleaudiology, and a home-visit loading.
3.5.	Create field and flag in HSO portal for those clients that are from a non-English speaking background and require an interpreter.

Table 21 'Service Delivery' activities

4.	Implement a simplified and unbundled service schedule and amend the Deed to ensure the continuation of world class care that is sustainable and aligns with the purpose of the scheme.
4.1.	Extend the Deed.
4.2.	Review minimum specifications.
4.3.	Investigate the viability of including cost recovery levies.
4.4.	Begin business process mapping to facilitate change to recommended alternatives to service items and fees, and supply of AHT.
4.5.	Develop communications plan to inform stakeholders of upcoming changes to 'service delivery' factors.
4.6.	Draft new listing rules for AHT on schedules.
4.7.	Develop non-compliance mechanisms to include in the contract.
4.8.	Draft new clauses, and amend established clauses, in the Deed to mandate disclosure of price and features of AHT.
4.9.	Engage in negotiations with DMs on changes to the Deed.
4.10.	Engage in negotiations with CSPs on changes to the contract.
4.11.	Evaluate alternative names for the AHT schedules.
4.12.	Test name changes with participants.

Table 22 'Rules' activities

5.	Update the rules of the scheme to incentivise the clinically appropriate delivery of holistic hearing solutions that minimise administrative burden and maximises the ability to provide high quality services and AHT.
5.1.	Finalise service pathway.
5.2.	Finalise new claiming principles.
5.3.	Test new claiming principles with industry.

Table 23 'Data' activities

6	Improve the collection, quality, availability, and dissemination of data and information surrounding the scheme.
6.1	Investigate what and how information is currently sourced, used, and communicated to clients in the VS.
6.2	Identify data gaps by stocktaking current data fields and flags in the HSO data set.
6.3	Co-ordinate with e-Health to align approach to information collection.
6.4	Begin process of including mandated data fields.
6.5	Add functionality in HSO for clients to rate AHT.
6.6	Undertake website usability testing on the HSP website.
6.7	Re-design the website.

5.5.3 Implementation schedule

An implementation schedule to July 2019 has been prepared to factor in the sequencing of activities identified above and is presented at Figure 13 below.

Figure 13 Implementation schedule to July 2019

Month	Financial Year 2017-18											Financial Year 2018-19												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
1. Budget Alignment																								
1.1 Brief Minister on recommendations of report and secure approval to undertake RIS consultations																								
1.2 Undertake RIS consultations																								
1.3 Seek Ministerial approval for changes to be considered in the 2018/19 budget cycle by undergoing necessary internal budget processes																								
1.4 Develop early draft of the NPP and identify whether an ICT second pass business case is required																								
1.5 Engage with the Strategic Policy Review committee																								
1.6 Cost the impact of policy changes and quantify direct and indirect cost savings																								
1.7 Action external costing request to the DHS to identify cost to implement ICT changes to the e-claim portal																								

Month	Financial Year 2017-18											Financial Year 2018-19												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
1.8 Draft long-form RIS and submit to OBPR																								
1.9 Request funds to implement changes, and engage in policy and costing iteration process with the DoF																								
1.10 Submit appropriate documentation to the ERC																								
1.11 Evaluate budget allocated for implementation and rescope project accordingly																								
1.12 Secure and operationalise funding																								
2. Objective																								
2.1 Prepare internal policy change documentation and secure approval																								
2.2 Determine extent of consultations required internally across government, and externally with experts and interested stakeholders																								
2.3 Undertake consultations with industry to begin defining optimal outcomes, standard measurement approaches, and principles for comparison																								
2.5 Identify and establish compliance benchmarks around desired industry behaviour																								

Month	Financial Year 2017-18						Financial Year 2018-19																	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
2.6 Develop incentive mechanisms around compliance benchmarks																								
2.7 Evaluate alternative names to the VS																								
2.8 Change the name of the VS																								
3. Access																								
3.1 Set up standing committee																								
3.2 Review MHLT																								
3.3 Develop communication plan to inform stakeholders of upcoming changes to 'access' factors																								
3.4 Investigate the scope and cost of providing interpreting and translating services, teleaudiology, and a home-visit loading.																								
3.5 Create field and flag for those clients from a non-English speaking background and require an interpreter																								
4. Service Delivery																								
4.1 Extend the Deed																								
4.2 Review minimum specifications																								
4.3. Investigate the viability of including cost recovery levies																								

Month	Financial Year 2017-18											Financial Year 2018-19												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
4.4 Begin business process mapping to facilitate change to recommended alternatives to service items and fees, and supply of AHT																								
4.5 Develop communications plan to inform stakeholders of upcoming changes to 'service delivery' factors																								
4.6 Draft new listing rules for AHT on schedules																								
4.7 Develop non-compliance mechanisms to include in the contract																								
4.8 Draft new clauses, and amend established clauses, in the Deed to mandate disclosure of price and features of AHT																								
4.9 Engage in negotiations with DMs on changes to the Deed																								
4.10 Engage in negotiations with CSPs on changes to the contract																								
4.11 Evaluate alternative names for the AHT schedules																								
4.12 Test name changes with participants																								
5. Rules																								
5.1 Finalise service pathway																								
5.2 Finalise new claiming principles																								

Month	Financial Year 2017-18						Financial Year 2018-19																	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
5.3 Test new claiming principles with industry																								
6. Data																								
6.1 Investigate what and how information is currently sourced, used, and communicated to clients in the VS																								
6.2 Identify data gaps by stocktaking current data fields and flags in the Hearing Services Online data set																								
6.3 Co-ordinate with e-Health to align approach to information collection																								
6.4 Begin process of including mandated data fields																								
6.5 Add functionality in Hearing Services Online for clients to rate AHT																								
6.6 Undertake website usability testing on the HSP's website																								
6.7 Re-design the website																								

5.5.4 Implementation risks

It is likely that a range of risks will arise in implementing the objectives above. Based on the risk matrix (see Table 24) identified risks were applied a rating, with a range of strategies presented to mitigate the risk identified (see Table 24).

Table 24 Risk matrix

Consequence

Likelihood	Insignificant	Minor	Moderate	Major	Severe
Almost certain					
Likely					
Possible					
Unlikely					
Rare					

Table 25 High-level risk schedule

Risk	Likelihood	Consequence	Rating	Mitigation strategies
Budget shortfall	Possible	Severe		Develop budgets that can plan for the likelihood of shortfalls, while also factoring in relevant contingencies if shortfall eventuates. Scope out alternative funding arrangements that could mitigate impact of shortfall.
Strategic imperatives of the Department change and adversely impact the support towards implementation	Possible	Severe		Secure buy-in from senior leadership team by communicating the benefits of the proposed changes. Set-up appropriate governance arrangements to satisfy communication expectations sought by senior leadership.
Insufficient subject matter experts to perform work	Possible	Severe		Explore alternatives approaches to accessing resources, including drawing on idle capacity within the Department. Consider alternative implementation approaches. Also consider the appropriateness of rescheduling and/or reprioritising work.

Risk	Likelihood	Consequence	Rating	Mitigation strategies
Insufficient IT personnel to perform work	Possible	Severe		Explore alternatives approaches to accessing resources, including drawing on idle capacity within the Department. Consider alternative implementation approaches. Also consider the appropriateness of rescheduling and/or reprioritising work.
Insufficient business analyst and business change management personnel to perform work	Possible	Severe		Explore alternatives approaches to accessing resources, including drawing on idle capacity within the Department. Consider alternative implementation approaches. Also consider the appropriateness of rescheduling and/or reprioritising work.
Government expectations out of alignment with Department project outcomes	Possible	Major		Clear communication with government and Minister. This includes appropriate use of project status updates, description and timing of activities and tasks to be completed, and the consequences of changing the nature and time allotted to these activities.
Internal IT processes and requirements not complied with	Possible	Major		Establish appropriate communication plans with project governance board. Clearly understand requirements and processes, and implement appropriate contingencies to factor in approval processes.
Estimates around project duration inaccurate	Possible	Major		Develop realistic project schedule with defined goals, benchmarks, and milestones. Identify likely project constraints, resource availability, and capabilities and factor into project schedule.
Misalignment between executive intent and project plans	Possible	Major		Establish clear communication lines and protocols. Develop issue logs and plans to resolve issues as they arise. Ensure timely, accurate, and complete project status information.
Conflict with industry stakeholders	Likely	Moderate		Develop stakeholder management plans, which includes categorisation of stakeholders along power/interest lines. Pro-actively communicate likely measures taken to senior leadership, and factor in relevant contingencies if measures pursued by industry.
Poorly defined business requirements	Possible	Moderate		Ensure that business requirements are developed in a clear, complete, detailed, and attainable manner. The business requirements should also be testable.
Activities missing from scope	Possible	Moderate		Ensure clear understanding of project vision, priorities, and deliverables.
Risk not identified prior to work being undertaken	Possible	Moderate		Develop a change control process. Keep a risk register and update regularly.

Appendices

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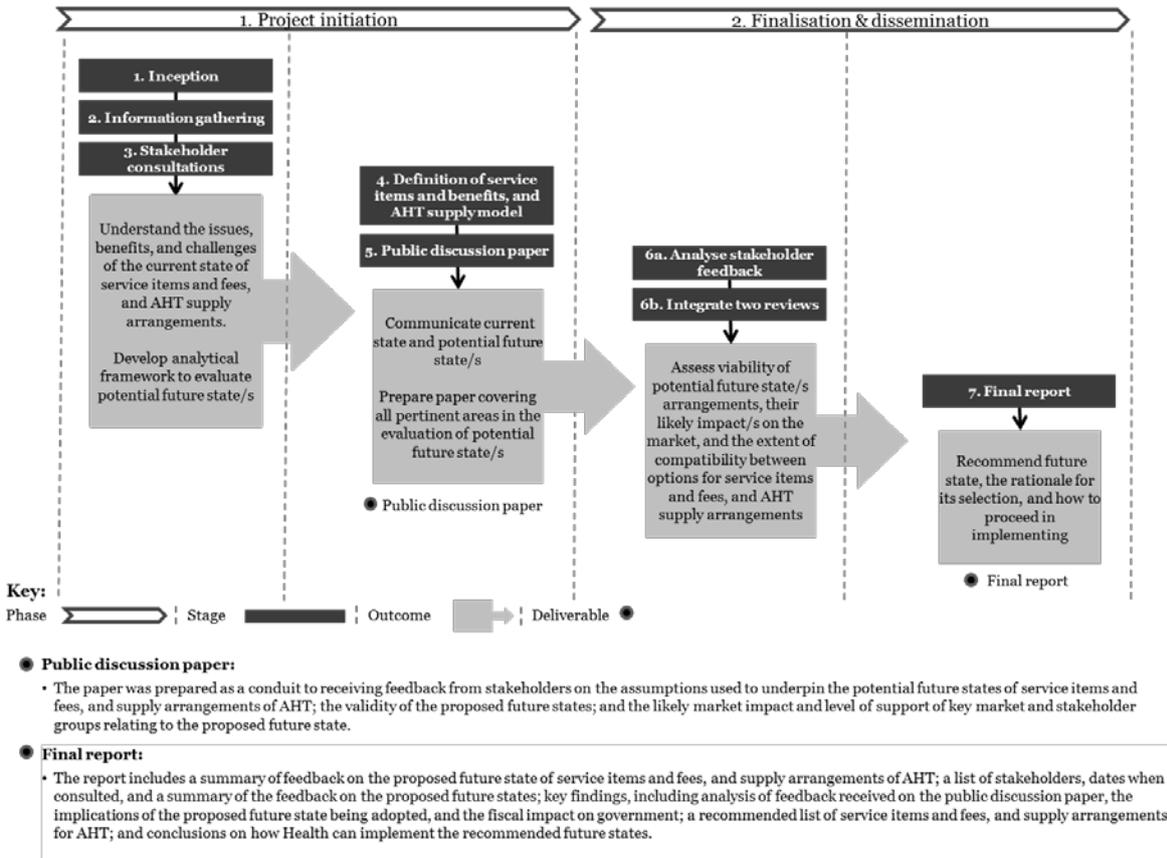
Appendix A Approach

The approach to the review of services and technology supply in the VS combined contemporary social research methods with the need to achieve the outcomes sought by the Department. As a result, the activities undertaken throughout the review were informed by the need to evaluate alternative service delivery models that could support improved client outcomes, business processes, reduce administrative burden, and provide better value for money for stakeholders.

Summary of approach

Across both reviews, two major phases were completed– each made up of multiple stages (see Figure 14).

Figure 14 Approach summary, by phase and stage



Key tasks were

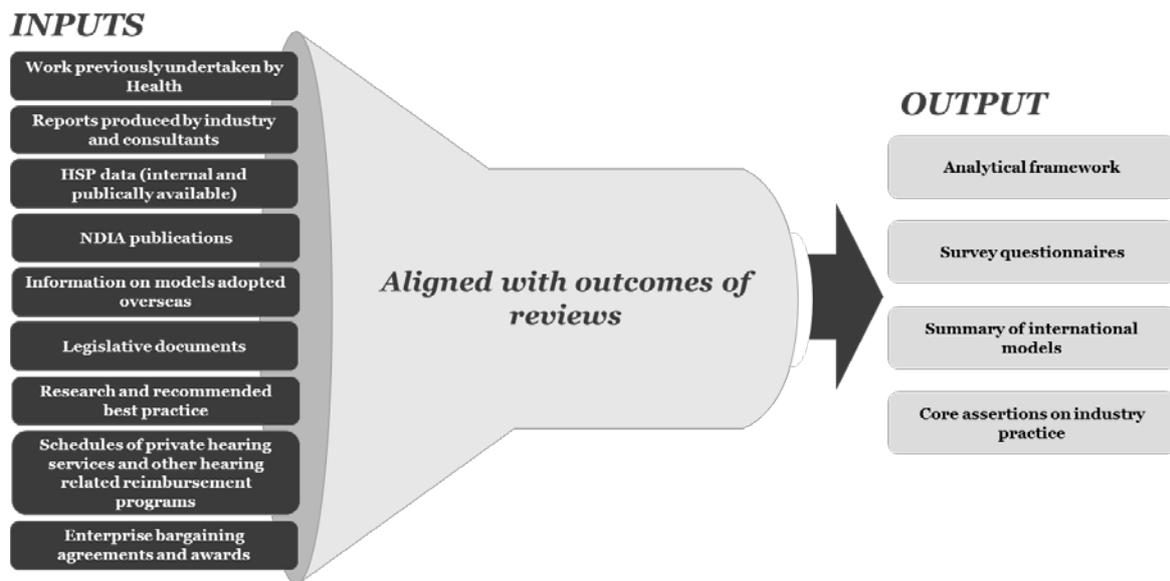
- Information gathering
- Survey questionnaires
- Stakeholder consultations
- Definition of alternative models
- Public discussion paper, and
- Modelling of alternative models.

Information gathering

This stage generated the evidence-base to support the evaluation of current and alternative service delivery models. Information gathered facilitated the development of an analytical framework, survey questionnaires, a summary of international models (see Appendix D) and a range of core assertions on industry practices. Together, these outputs were able to contribute to a more robust approach to undertaking stakeholder consultations and defining viable alternative models (including their modelling).

The process of generating such outputs has been depicted in Figure 15. It shows that information from a broad range of data sources (the inputs) were assessed for relevancy to the outcomes sought by the Department. In doing so, pertinent factors to evaluate the efficiency and effectiveness of hearing services and AHT provision were identified.

Figure 15 Information gathering process



Survey questionnaires

A survey questionnaire was developed based on information gathered in the early stages of the Review of the supply of Assistive Hearing Technology (RoAHT). As a result, the survey was applicable only to RoAHT and not the Review of Service Items and Fees (RoSIF). The survey questionnaire consisted of two instruments, one completed by DMs and the other by CSPs. The purpose of the survey was to

- inform questions and discussion points during stakeholder consultations
- identify behavioural tendencies of firms (both DMs and CSPs)
- understand factors such as average profit margin per AHT, average revenue per firm, clientele, and number of AHT (among other variables)
- determine the views of DMs and CSPs on components of the current supply arrangement, and
- verify that internal VS data is consistent with survey responses.

Responses totaled 381 across both survey questionnaires (22 for DMs, and 359 for CSPs), and informed stakeholder consultations for RoAHT, while also identifying areas for further inquiry. Questions asked in the surveys are included at Appendix G.

Stakeholder consultations

Stakeholder consultations had two primary aims

1. to facilitate the identification of contextually relevant factors to the Australian market, particularly as they relate to the VS, and
2. to canvass and consider views expressed by a range of different stakeholders.

Consultations helped to identify and understand the benefits and challenges of the current service delivery model as they affected stakeholders who interact with the VS. Additionally, stakeholder input conveyed a broader range of issues from many perspectives, which may not have been considered if the review relied solely on information expressed in research.

Consultations were delivered either through face-to-face meetings, teleconference, or visits to clinics. Stakeholders consulted included representatives from government, industry associations, consumer groups, and PPBs (including practitioners). Consultations took place in two tranches and focused first on service items and fees, and subsequently, on the supply arrangements of AHT.

Once all stakeholder consultations were completed and responses recorded, open coding methodology was used to identify key themes. 72 stakeholders were consulted, involving over 40 hours of direct contact. An overview of the stakeholders consulted during this stage can be seen at Appendix H.

Definition of alternative models

A range of possible alternative models were defined by leveraging the evidence-base of the information gathering stage, the themes found during stakeholder consultations, and the outcomes sought by the Department. This stage included consideration of possible mechanisms employed in international jurisdictions, ways to retain the benefits of the current service delivery model, and ways to address the challenges.

The alternative models deemed most viable based on research, precedence, and stakeholder feedback were included in the public discussion paper.

Public discussion paper

The public discussion paper aimed to test the findings and analysis of previous stages with hearing sector stakeholders (such as clinical practitioners, manufacturers, PPBs, and consumer interest groups).

The Web Content Accessibility Guidelines (WCAG) AA compliant paper could be accessed and read by any interested member of the public on the Department's website for a period of 8 weeks from 26th April 2017.

The paper communicated information relating to the benefits and challenges of the VS (particularly as it related to the current service delivery model), identified potential alternative models, and analysed the merits of implementing the alternative models presented. As a result, the paper was developed in a manner conducive to testing the

- assumptions underpinning potential future states of service items and fees, and supply arrangements of AHT
- validity of the proposed future states
- likely market impact, and
- level of support towards, or resistance against, proposed future states.

A total of 37 responses were received from stakeholders. The list of discussion paper questions is available at Appendix I.

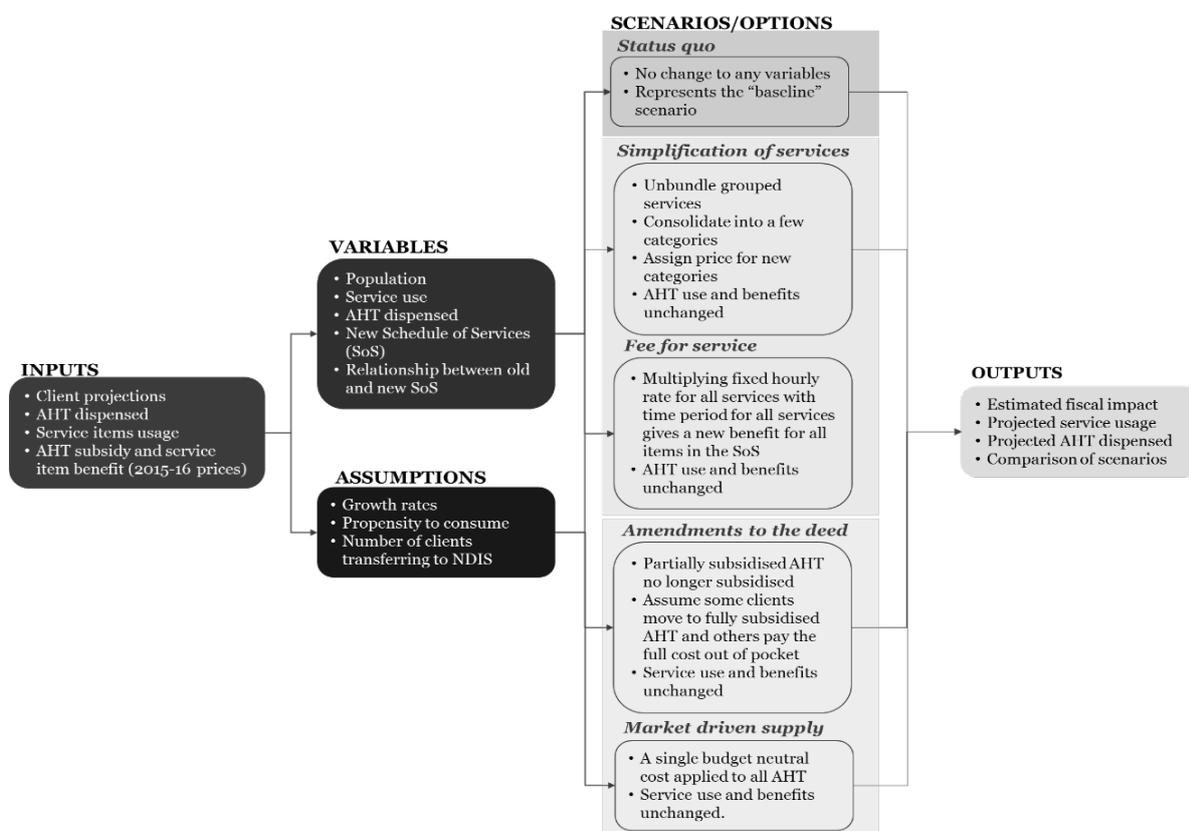
Modelling of alternative models

A model was developed to help identify the fiscal impact of a set of alternative models, the projected change in service usage, and the projected AHT dispensed. This would provide a basis on which to compare alternative models to the status quo situation. It would also allow alternative models to be integrated and their net impact determined. A model overview can be seen at Figure 16. Further details of the approach to the modelling alternative models are included in Appendix F.

The modelling process considered the following

- Population and service projections by eligibility type to 2025-26 from the Department’s Population Model used as inputs, with 2015-16 set as the ‘baseline’ year.
- AHT projections were not in the Department’s Population Model, and usage was extracted from 2015-16 HSO data provided by the Department. The usage rates for 2015-16 by eligibility type were calculated, and applied to population projections in order to project AHT dispensed in future years.
- The 2015-16 Schedule of Fees was used for the prices of AHT and service items, and all projections were kept in 2015-16 prices.
- User inputs were made available to alter the assumptions for population, service and AHT projections.
- A functionality to redesign the schedule of services was included, giving users the flexibility to change, group or separate service items if required.
- An output functionality applies any assumptions, and then summarises to calculate the total expenditure for a particular set of assumptions. It can also compare across a range of scenarios to indicate the likely impact of a particular option.
- The Efficient Price Impact (EPI) model only has projections for the VS, and does not consider the CSO program.

Figure 16 Overview of EPI Model



Constraints to application of approach

While implementing the approach described above, a range of constraints (see Table 26) were identified. The constraints relate to the reliance on external sources of information and data (some already published, and others yet to be published) as references and inputs to develop the evidence-base. Slight modifications to certain approaches assisted in mitigating the impact of these constraints on the review.

Table 26 Description of constraints to approach

Constraint	Description
Data limitations	Lack of longitudinal data, incomplete data sets, or fragmented approaches to data collection and analysis in third party material used in the information gathering process.
Biased stakeholder responses	Cognitive biases influencing the accuracy of responses provided by stakeholders during consultations, surveys, and questions in the public discussion paper.
Ongoing parliamentary inquiries	Findings, outcomes, and recommendations of the Joint Standing Committee on the National Disability Insurance Scheme and the Standing Committee on Health Aged Care and Sport yet to be finalised.

Appendix B Eligibility Criteria to HSP

Regardless of stream (i.e. VS or CSO Program), eligibility to the HSP requires the individual to be either an Australian Citizen or a Permanent Resident above a particular age. For those young adults aged 21 to 25 (inclusive), they access hearing services through the VS (if in the eligibility criteria listed below) or through the CSO.

Differences in eligibility requirements are based on the complexity, vulnerability, and risk of undesirable social and economic outcomes for those eligible.

Participants in the NDIS may be eligible for access to the HSP if they are referred for services by their NDIS planner.

Voucher Scheme (VS)

To be eligible for the VS, individuals need to be an Australian Citizen or a Permanent Resident that is 21 years or older. They also need to be

- a Pensioner Concession Card Holder
- receiving Sickness Allowance from Centrelink
- the holder of a Department of Veterans' Affairs (DVA) Gold Card for all conditions
- the holder of DVA White Card for specific conditions, including hearing loss
- a dependent of a person in one of the above categories
- a member of the Australian Defence Force, or
- part of the Australian Government funded Disability Employment Services (DES) and are referred to the VS by your DES case manager.

Community Service Obligation (CSO) Program

To be eligible for the CSO Program, Australian Citizenship or Permanent Residency is required. In addition, the individual needs to be

- a VS eligible client who has complex hearing or communications needs, or lives in a remote area/s
- an Aboriginal and/or Torres Strait Islander who is
 - 50 years or older
 - is a participant in the Community Development Programme (CDP), or
 - was a part of the Community Development Employment Projects (CDEP) program on or after 30 June 2013, ceased participating in the program, and was receiving hearing services from AH prior to ceasing participation.
- any person under 21 years of age who is
 - an Australian Citizen
 - a Permanent Resident, or
 - a young NDIS participant.

Appendix C AHT available through the NDIS

The following AHT are available through the NDIS, as indicated in the NDIA's AT and Consumables Code guide valid from 1 July 2016, released 2 December 2016.²⁵⁰

Table 27 Hearing aids

Support Item	Description
Hearing aid (one) higher needs amount in addition to HSP subsidy	Monaural hearing device for voucher clients with higher needs from HSP Top-Up Schedule (amount in addition to HSP subsidy).
Hearing aid (two) higher needs amount in addition to HSP subsidy	Binaural hearing devices for voucher clients with higher needs from HSP Top Up schedule (amount in addition to HSP subsidy).
Hearing aid battery and consumables supply	12 months battery supply, per hearing aid.
Hearing aid maintenance HSP voucher client contribution	Annual maintenance contribution fee.
Hearing aid replacement fee HSP devices - over 25yrs not DVA	Replacement fee for hearing aids through HSP for those older than 25 who are not covered by Department of Veteran Affairs.

Table 28 Implantable technology

Support Item	Description
Cochlear and other implantable processor repairs	Payable only if manufacturers invoice for repairs is retained.
Cochlear implant speech processor and coil	The external part of the cochlear implant which picks up speech and processes the sound.
External components for other implantable devices	External components for a range of implantable devices other than cochlear implants for people unable to use conventional hearing aids, including bone conduction devices and middle ear implants.

Table 29 ALD

Support Item	Description
Telephone Coupler	Small portable device that attaches to the earpiece of the telephone and amplifies sound.
Tinnitus Reduction Device	May include higher technology hearing aids with tinnitus programs or stand-alone maskers and suppressors.
TV Device for Hearing Assistance	Systems for delivering sound directly from the TV to the ear.
Vibro Tactile Devices	A device that picks up sound and transforms it into a vibrating signal that is felt by the individual.
Adapted Landline Telephone	Telephones with features including amplified sound, different ring pitch and visual alerts using wireless Bluetooth with a landline.
Baby Cry Alerting Systems for Hearing Impaired	Visual or vibrating alert for those hard of hearing.
Induction loop devices	Designed for individual use in private and public situations including reception counters, meetings and other appointments.
Loudspeakers	Device that increases the volume of a sound.
Music Devices	Portable couplers that allow individuals with hearing aids to access music via audio devices.
Personal Amplifiers / Binaural Listener	Personal sound amplifiers can be worn, systems usually consist of a small box with a microphone to pick up sound which is then amplified and sent to the ears via headphones or earbuds.

Support Item	Description
Radio frequency transmission systems for hearing	Remote microphone sound transmission systems can be used to overcome difficulties with distance, background noise and reverberation.
Remote control	A remote control that enables changes to be made to hearing aids without touching the hearing devices. It allows access to volume and program changes for people with poor or nil manual dexterity and for use by carers.
Smoke alarm adapted for hearing impaired	Visual alert or vibrating smoke alarm packages for those hard of hearing.
Streamer	Enable wireless access to accessories such as mobile phones, MP3 players and audio devices for individuals with hearing aids.

Appendix D Summary of International Models

With an understanding of the benefits and challenges of the HSP, it is important to compare the Australian model of hearing services and supply of AHT against other countries. Insights drawn from the comparison can be leveraged to develop and evaluate alternative models of service delivery under the HSP.

Figure 17 International service items and fees

 US Medicaid program in the State of New York	 US Medicare program
<p>Reimbursement for hearing services dependent on provision of hearing aid. 45-day trial period for a hearing aid/s. Reimbursement amount differs depending on whether or not a written declaration of benefit, from use of the hearing aid, was made by the patient at the end of the trial period.</p>	<p>Reimbursement amount based on a calculation of a statutory formula that considers the costs associated with professional work, technical expenses and professional liability insurance. Negative Payment Adjustments are made to claims by providers who do not meet reporting requirements.</p>
 Private Providers of Audiological Services in the US	 Germany
<p>Unbundled model for pricing of services. Adoption of Activity-Based Costing methodology to determine pricing of service.</p>	<p>Publicly funded hospitals provide hearing services where the reimbursement is determined through Diagnosis-related Groups (DRG). Private practices are reimbursed through fee-for-service.</p>
 United Kingdom	 New Zealand
<p>The National Health Service provides hearing services to eligible clients based on clinical need rather than ability to pay. Price for providers set to a national tariff or by local CCG. Providers compete on quality not price.</p>	<p>The Ministry of Health has two hearing aid schemes which only fund the cost of an AHT not hearing assessment or fitting services. As of July 2016, Enable NZ took over the management of the provision of hearing services for adults and children. Life Unlimited manages rehabilitation services.²⁵¹</p>
 Canada	 Sweden
<p>Hearing services benefits are closely linked to the provision of a hearing aid. Criteria for payment includes the Province/Territory of residence, the age of the recipient of services, and whether or not a hearing aid is the end-result of the services provided.</p>	<p>Hearing healthcare system is publicly financed and administered by local authorities. Depending on the county, the patient may be charged a co-payment for the testing and fitting of a hearing aid, or for entry to the health clinic. Private firms also provide hearing services and aids, which are not government funded.</p>

Figure 18 International supply arrangements

 United Kingdom	 Canada
<p>Tender model The National Health Service (NHS) Supply Chain exclusively procures AHT through a formal tender arrangement with 8 AHT manufacturers.</p> <p>Advantages Economies of scale. Free AHT to clients. Dedicated account managers. Minimum quality of device assured.</p> <p>Disadvantages Significant waiting times. Lower compliance and satisfaction rates. Limited range of AHT. Restrictions on technology available.</p>	<p>Provincial Coverage model Provinces/Territories have jurisdiction on how to manage supply arrangements (e.g. eligibility requirements, subsidy amount, and range of AHT accessible).</p> <p>Advantages Diverse range of AHT available. Up to 100 per cent of the cost of AHT and accessories can be covered.</p> <p>Disadvantages Eligibility, subsidy, and approved AHT differ by Province/Territory. Cost to client differs based on procurement approach.</p>
 US Veterans Affairs Rehabilitation and Prosthetic Services	 US Multi-State Agreement
<p>Tender model The US Department of Veterans Affairs has contractual arrangements with 6 AHT manufacturers, allowing veterans to receive free AHT, repairs, and batteries.</p> <p>Advantages AHT and certain accessories free to client. Clients can order accessories online.</p> <p>Disadvantages Restriction on range of AHT. Additional administrative tasks required of client.</p>	<p>Contractual arrangement model A multi-state cooperative agreement between the State of Maine, Minnesota, Michigan, Wisconsin, and 10 AHT manufacturers offer significant discounts on AHT.</p> <p>Advantages Price to pay for AHT, by manufacturer, publically available. Reduced cost of AHT. Reduced cost available to municipalities, school districts, and other public entities.</p> <p>Disadvantages Restriction on range of AHT.</p>
 New Zealand	
<p>Outsourced Intermediary model The Ministry of Health set the terms and conditions of AHT provision and outsource the management of AHT supply to an intermediary (EnableNZ).</p>	<p>Advantages Minimum standard of quality for AHT through approved AHT list. Information asymmetry reduced via publication of booklets. Key Performance Indicators imposed on intermediary. Up to 100 per cent of cost AHT can be covered.</p> <p>Disadvantages Reviewing applications creates added administrative burden. Concerns over eligibility and equity of access.</p>

United Kingdom

The United Kingdom (UK)²⁵² provides hearing assessments and AHT to eligible patients under the National Health Service (NHS). Eligibility is based on clinical need rather than ability to pay. Patients are required to visit their general practitioner who will then assess whether the patients are eligible to be referred to an NHS audiology specialist. Patients can choose to access services from an NHS specialist that is registered with the Health & Care Professions Council,²⁵³ and is listed under the Any Qualified Provider scheme). Alternatively, patients can see a qualified private audiologist or hearing aid dispenser. The price paid to the provider by the NHS is set the by Clinical Commissioning Group (CCG) for the local area or is a national tariff. Providers can compete on quality only not price and there is a minimum quality standard. Providers are not guaranteed a certain volume of patients.

The UK adopts a Tender model as its preferred supply arrangement. As part of this arrangement the national provider, the NHS, manages the procurement of AHT and associated accessories for eligible clients.²⁵⁴ Currently, there are 8 AHT manufacturers or wholesalers servicing the UK market.²⁵⁵

Many of these AHT manufacturers or wholesalers also operate in other jurisdictions such as Australia, and the USA (via the Multi-state agreement – see below), allowing them to provide the large volumes of AHT that are demanded in the UK through this supply arrangement.

By being able to procure such a large number of AHT, the UK supply arrangement benefits from economies of scale – or in other words, a significant reduction in the cost of the AHT, meaning significant savings for government. As AHT and reasonable accessories are free to the client, there are also minimal out-of-pocket expenses for the client. This applies to hearing aids, ear moulds, hearing aid batteries, and cochlear implants. In 2010, it was estimated the price paid by NHS for a hearing aid averaged £300-£400 (for the AHT alone), while the retail price was £725 or more.²⁵⁶

An additional benefit includes the use of dedicated account managers allowing a day-to-day contact for a clients' queries. By having dedicated account managers, the issues of a client can be answered in an expeditious manner by someone who is familiar with the environment and factors affecting the client. It also allows an invested 3rd party to evaluate whether the client is identifying and making the most out of possible saving opportunities.

The UK supply arrangement also provides quality assurances by ensuring that the procurement processes are compliant with the European Union (EU) procurement regulations. The quality of AHT is also regulated, with any new AHT required to be on the National Framework Agreement. Any AHT on the Framework has been clinically evaluated by the Audiology Supplies Group (ASG), ensuring a minimum quality in the AHT offered.

The Tender model results in clients facing significant waiting times for access to AHT, relative to private hearing aids. At present, the demand for AHT is greater than the number of hearing specialists able to supply the demand. This is due to the bottlenecks that exist in the clinical pathway, with clients having to visit a GP to get a referral to a hearing specialist prior to receiving an AHT.²⁵⁷ This issue has been identified by NHS, resulting in the NHS adopting it as a key performance metric.²⁵⁸

Research into AHT supply arrangements found that the level of compliance and satisfaction ratings for the UK supply arrangement were relatively lower than equivalent EU programs.²⁵⁹

The range of AHT and technology available has also been identified as a major disadvantage of the UK supply arrangement. As a client, choice of AHT is restricted, making it likely that clients are fitted with Behind-the-ear or Open-fit model.²⁶⁰ The Tender approach results in the available stock of AHT becoming restricted, relative to those AHT available through private channels.²⁶¹ New technology is also affected as clients are only able to access AHT that were included at the time of the tender agreement, with newer models not being made available to them after this time.

Canada

Canada²⁶² provides free healthcare to eligible persons. With respects to hearing services, the healthcare system benefit is linked closely to the provision of a hearing aid. The criteria that determines whether or not a benefit is payable includes

The jurisdiction (i.e. the Province/Territory of residence)

The age of the recipient of services, and

Whether or not a hearing aid is the end-result of the services provided.

The Canadian AHT supply arrangement differs depending on the Province/Territory that a client resides in. Although certain financial support is available to Canadian citizens and permanent residents through social security and/or disability programs, access to AHT is determined based on geography. The Province/Territory has jurisdiction on the management and administration of the AHT supply arrangements, which includes aspects like who is eligible, how much of a subsidy is available, and the range of AHT that is made accessible. The type and price of AHT is negotiated between the Provincial government and the manufacturer or wholesaler directly in some cases, while in other cases, the AHT is procured

from a cooperative agency like the Atlantic Provinces Special Education Authority (APSEA).²⁶³

Given that each Province/Territory deals directly with the AHT manufacturer or wholesaler there is a more diverse and sophisticated range of available AHT – although they are not uniform across Provinces. This advantage is in part associated with the ‘flat-rate’ reimbursement system evident in various Provinces.

Another major advantage of the Canadian supply arrangements is that it can cover up to 100 per cent of the cost of AHT and accessories. Depending on the eligibility status of the client, and their particular circumstances, certain Provinces provide relief through complete subsidisation of the AHT. This is seen, for example, in Newfoundland and Labrador where 100 per cent of the cost of the hearing aid is covered (excluding batteries). This applies for those under 18 years of age, full-time students, and adults deemed unable to pay as per a government financial assessment.²⁶⁴

Disadvantages of the program include the lack of uniform national coverage. As the supply arrangements are based on the Province/Territory where the client resides, eligibility, subsidy, and approved AHT are not equal for all. As a result the cost to the client differs significantly based on the procurement approach adopted.

In addition, the lack of coordination and collaboration between Provincial and government departments mean that potential synergies such as economies of scale are not fully captured.

US Medicaid program in the State of New York

The US Medicaid program in New York²⁶⁵ is an output-based model that is dependent on the provision of a hearing aid. The reimbursable amount varies, depending on whether the client signs a “written confirmation of benefit of use of the hearing aid” after a trial period of 45 days. In such a situation where the aid has rendered some benefit to the patient, the provider will be reimbursed an amount²⁶⁶ for the hearing aid and a dispensing fee for the services provided to the patient. Where the hearing aid is deemed to be of no benefit to the patient after a 45-day trial period, then a portion of the total dispensing fee, which represents an administrative component, will be paid. Reimbursement for hearing aids also differ according to whether they are monaural or binaural.

US Medicare program

The US Medicare program²⁶⁷ - applicable to people over 65 and those with a disability – reimburses audiology services at different rates, depending on a number of factors. Not all services provided by an audiologist are covered by Medicare. The program also requires annual reporting by providers. In some cases, reporting needs to be done every time a particular type of patient visits. Given changes implemented by the *Medicare Access and CHIP Reauthorization Act* of 2015, rates associated with individual Current Procedural Terminology (CPT) codes are currently changing to reflect adjustments in the calculation of fees. If certain reporting benchmarks are not met in line with the Physician Quality Reporting System, providers will see a negative 2 per cent adjustment to their claims. The factors affecting the benefit payable includes

- The location of the services whether or not they were conducted at a hospital site, or off it (the payment for audiology services differ depending on setting, with rates for services provided at a ‘facility’ (e.g. at a hospital) lower than the ‘non-facility’ rates to factor in higher fixed costs)
- The particular CPT code applicable to the procedure
- The particular Relative Unit Value²⁶⁸ applicable to the procedure, and
- The statutory conversion factor that applies to the procedure.

US Veteran Affairs Rehabilitation and Prosthetic Services

For eligible US Veterans, the US Department of Veteran Affairs has adopted a Tender model as the means to supply AHT. The department established a contractual arrangement with 6 AHT manufacturers, which gives eligible veterans the right to receive free AHT, repairs, and batteries.

By negotiating directly with AHT manufacturers, and agreeing to a fixed price for particular types of AHT, the supply arrangements have enabled the provision of free to client AHT in a way that minimises the cost for the government. In addition, the supply arrangement caters to its clients by allowing them to order accessories and batteries online. This reduces the inconvenience of having to see a service provider every time they require new accessories or batteries.

As the contract limits the range of AHT to lock-in a better price for government, it may hamper clients in acquiring AHT that are relatively newer or have certain technology or features that were not common place at the time that the tender arrangement was agreed to. In addition, these supply arrangements do place certain administrative tasks back onto the client.

US Multi-State Agreement

A supply arrangement between multiple states in the US has resulted in a 'contractual arrangement' model being adopted by the states of Maine, Minnesota, Michigan, and Wisconsin, and 10 AHT manufacturers or wholesalers. This is slightly different from a Tender model in that contractual arrangements are also entered into between the procurement arms of the respective state governments. The 'Hearing Aid Procurement Program' put the procurement contracts in place to service clients involved in State programs. Although these were the primary clients catered to, the program can be used by any state agency to achieve significant discounts on a select range of AHT.²⁶⁹

This supply arrangement allows significant reductions in the cost of an AHT. This is achieved based on the volume of AHT that are procured through the program – achieving economies of scale for AHT manufacturers. This means that there is also reduced cost to government from achieving a reduced AHT cost. The range of parties that have access to the prices negotiated in the contracts is also a major advantage. As such, relevant state agencies, municipalities, school districts, and other public entities are entitled to access the reduced costs of the AHT in the program.

Information on the range of AHT and their agreed-to price are publically available. This makes sure that all parties who have a right to receive the benefits of the contract are aware of the type of AHT and their price – increasing the eligible party's consumer literacy. The contract does restrict the number of AHT available, as it is not dynamic to additions of new AHT.

Private providers of audiological services in the US

Private providers of audiology services in the US²⁷⁰ are adopting an unbundled model, which itemises services provided to patients. In such a model, the price of the hearing aid is billed separately from the services provided. The way that pricing is formulated under this model is based on something similar to activity-based costing. The total cost of operating, plus a lump-sum amount for profit desired, is divided by the total number of hours worked, which provides the cost of service on an hourly basis. The costs of non-clinical staff, overheads, and equipment maintenance expenses are included in the total cost of operating.

New Zealand

As of July 2016, Enable NZ took over the management of the provision of hearing services for adults and children.²⁷¹ Life Unlimited manages rehabilitation services.

Enable NZ administers two hearing services schemes

- Hearing aid subsidy scheme, and
- Hearing aid funding scheme.

Both are AHT focused and do not cover the costs of hearing assessments, fittings or maintenance in private practice but patients can receive hearing services at minimal cost in public hospitals. District Health Boards offer hearing assessments through a hearing therapist at no cost and patients eligible for Government funded services can be referred to a private audiologist.

The NZ Ministry of Health also funds Accessable and Life Unlimited. Accessable is able to fund the provision of hearing aids, equipment, and housing alterations for people with a disability.²⁷² Life Unlimited delivers free hearing therapy services, rehabilitation, and independent advice on using hearing aids and/or other AHT and communication strategies. Life Unlimited does not sell or fit hearing aids.

The NZ government adopts an 'outsourced intermediary' model to supply AHT to eligible clients. As part of this national model, the Ministry of Health sets the terms and conditions of AHT provision, while the day-to-day administration and management of AHT supply is outsourced to EnableNZ (a private enterprise).²⁷³ Duties of EnableNZ include

- setting requirements for service providers to be able to claim for payment
- deliver services, including rules for provision of AHT
- manage and monitor services and AHT provided, and
- management of contracts with 10 AHT manufacturers and wholesalers.

For AHT to be available in NZ, AHT manufacturers have to provide compliance and testing information to the School of Population at the University of Auckland. As hearing aids are defined as a medical device in NZ, the AHT submitted for inclusion must have first passed the therapeutic device standards for entry into NZ – a service conducted by the New Zealand Medicines and Medical Devices Safety Authority (MEDSAFE).²⁷⁴ These two screening processes allow for a minimum standard of AHT quality in NZ, while allowing specialists to ensure that eligible clients are given quality AHT that can meet their hearing needs.

As part of the NZ supply arrangements, AHT are available through the

- Hearing Aid Subsidy Scheme (which offers a fixed rebate of \$511.11 including GST per hearing aid to eligible clients),²⁷⁵ and
- Hearing Aid Funding Scheme (which covers only the cost of the hearing aid and accessories essential for the clients hearing needs).²⁷⁶

Cochlear implants are treated separately from hearing aids in NZ. The Ministry of Health provides funding for cochlear implant to clients who meet all eligibility criteria. A total of NZ\$8 million is funded for implants and associated support each year.²⁷⁷

The NZ supply arrangements also provide significant publically available information to clients and other interested stakeholders. Access to information is available through multiple websites including those of the Ministry of Health and EnableNZ. Together, the information is provided in a clear way with minimal overlap in content. In addition, a booklet is produced for each scheme to inform clients on their rights. Information asymmetry is reduced by providing overviews on the difference between types of hearing aids and the price expected to be paid for them.

Given that the NZ supply arrangements are managed and administrated by a private-entity, key performance indicators are imposed on the intermediary. This allows the Ministry to push for improvements in the provision of AHT. Failure to do so might entail a loss of contract when it is up for renewal. Another advantage of the program is that vulnerable clients may have up to 100 per cent of costs of AHT covered.

Germany

Germany²⁷⁸ adopts a contribution-based social insurance model. This means that all citizens must have either public health insurance or private health insurance.²⁷⁹ Hearing services are provided in public hospitals for those under public health insurance. Diagnostic-related Groups (DRGs) were adopted in public funded hospitals to determine the reimbursable amount for the provision of a hearing service (see Chap.VIII, Block. H90-95 in the ICD-10 International Classifications for specific DRGs related to diseases of the ear and mastoid process).²⁸⁰ Adoption of a DRG-based model means that similar medical procedures are grouped together. These DRGs are then given a code for recording purposes, their values recorded, and an average price of the service determined using available data (which is updated on a yearly basis). This average price is what will be reimbursable for the provision of the hearing services. Those citizens who are covered by public health insurance will also have access to hearing aids, if they are required for medical reasons. A maximum outlay is in place, so if the cost of the hearing aid exceeds the outlay, then the individual will have to pay the difference. Private providers of health services are remunerated based on fee-for-service, and not on a lump-sum arrangement. This contrasts the reimbursement of publically funded hospitals, primarily due to private practices not adopting a DRG-based model. For those covered under private health insurance, the same maximum outlay exists for hearing aids.

Sweden

The hearing healthcare system in Sweden²⁸¹ is public financed and administered by local authorities. The extent of the public funding differs according to county. While some counties cover the cost of hearing services, with a fixed limit of subsidies per hearing aid, other counties charge the client an additional fee for the testing and fitting of hearing aids. Furthermore, certain counties also charge a small fee to the client, whenever the client visits the health clinic. Private firms also provide hearing services on a fee-for-service arrangement, and with hearing aids subject to market rates.

Appendix E Aspects under the simplification and unbundling of services

The following information relates to the proposed claiming rules, service pathway costing, and differential benefit falling under the simplification and unbundling of services option.

Claiming principles

Table 30 below describes the claiming principles that should guide the creation of new claiming rules under the simplification and unbundling of services. It highlights the need to allow CSPs an increased degree of flexibility and professional judgement, while also ensuring that the Department is able to determine and define how claiming will be administered.

Table 30 Proposed claiming principles

Service item related to	Description
All	<p>All claims must include the date of service.</p> <p>Right to access services ceases 3 years after an assessment is claimed.</p> <p>Services must be provided by a hearing services practitioner, as defined by the Department.</p> <p>Department to determine optimal intervals between claiming items and maximum allowable claims per item based on clinical best practice.</p> <p>After the first year of services, the client has the option to undergo either maintenance or rehabilitation in the second and third year respectively.</p>
Assessment	<p>Practitioner must undertake a clinical assessment of the client's hearing loss, define the client's hearing goals and make a determination on whether the client would benefit from an AHT given their motivation, willingness, and ability to use the AHT.</p>
Rehabilitation	<p>Practitioner must undertake one of the following activities</p> <p>Hearing Rehabilitation Counselling program.</p> <p>Discussion of mechanisms to achieve desired hearing outcomes.</p> <p>Reassessment or follow up of client's progress against their desired hearing outcomes and adjustment of mechanisms accordingly.</p>
Fitting	<p>Practitioner must fit the client with an AHT from Department approved schedule.</p>
Maintenance	<p>Can only be claimed after 12 months from the date of fitting (i.e. in years 2 and 3).</p> <p>If under AHT warranty period, per service for minor repairs and maintenance. That is repairs not covered by warranty and maintenance as defined by the Department.</p> <p>Outside of AHT warranty period, per service for major repairs, that is those previously covered by the warranty, and minor repairs and maintenance as defined by Department.</p>

Service pathway

The following section presents a comparison between the status quo and the simplification and unbundling of services over a voucher cycle.

It is critical to note that providing a true like-for-like comparison at a CSP level is not possible due to the unbundling of services and the complexity around sequencing all 48 items in the current schedule over a voucher cycle. Hence, the impact of the new schedule and its associated fees on a specific CSP will differ depending on their current practices and client mix.

However, a simplified like-for-like comparison is possible at a scheme-level. Aggregate data sourced from the Department's Population Model (prototype, updated 5 June 2017) can be used to compare the differences in fiscal impact and average cost per client over a voucher cycle.

This scheme-level comparison is possible by mapping the old schedule of services to the new, simplified and unbundled schedule of services. Such an approach aligns with the modelling undertaken to identify estimates on fiscal impacts and service usage (see Appendix F for details).

To enable a scheme-level like-for-like comparison, two possible scenarios were costed under the simplification and unbundling of services

1. Projected impact – represents the estimated fiscal impact associated with a simple service pathway. Here, the pathway assumes a broadly consistent approach to the way CSPs provide hearing services. In this regard, it reflects the process of unbundling the current schedule and matching it to the new simplified schedule and its associated prices. Relative to the status quo, FY15-16 spend increases by \$37.6m and average cost per client increases by \$54, from \$348.87 to \$403.23.
2. Upper boundary – represents the estimated fiscal impact associated with the same service pathway as in the projected impact scenario. However, it factors in flexibility for claiming additional rehabilitation and support at different parts of the pathway. It also reflects the outcome of all CSPs seeking to maximise the allowance for each voucher. As a result, the upper boundary increases the funding envelope, relative to the projected impact scenario, by 43.7%. Relative to the status quo, it increases FY15-16 spend by \$159.3m and average cost per client by \$230, from \$348.87 to \$579.25.

Table 31 demonstrates the estimated fiscal impact and average cost per client compared to the status quo, for the projected impact and upper boundary scenarios.

Table 31 Estimated VS spend and average cost per client associated with the simplification and unbundling of services (FY2015-16)

Scenario	FY15-16 spend	FY15-16 Avg. cost per client ^a
Status quo	\$241.3m	\$348.87
Projected impact - simplification and unbundling of services ^b	\$278.9m	\$403.23
Upper boundary - simplification and unbundling of services ^c	\$400.6m	\$579.25

Source

Department of Health and PwC Analysis.

Notes

FY15-16 spend represents the administrative expenditure associated with the provision of hearing services and AHT. It does not include departmental costs to administer the VS.

a) FY15-16 average cost per client is the average cost over the voucher cycle. It is calculated by dividing the FY15-16 spend under each scenario by the number of financially active clients in FY15-16. As indicated in Table 7, the number of financially active clients in FY15-16 was 691,666. This approach to calculating average cost per client is consistent with that applied in the Department's Population Model (prototype, updated 5 June 2017). Figure rounded to 2 decimal place.

Across all scenarios the following set of assumptions were applied

- The voucher cycle has been assumed to be 3 years in length, as has been the case in the VS since 2012.²⁸²
- Those who are not ready for an AHT are to receive rehabilitation and support as the next service. This is provided after an assessment.
- Not all clients receive an assessment in Year 1 of the voucher cycle. This reflects that clients may be at a different stage in the cycle (i.e. in Year 2 or Year 3 of the cycle).

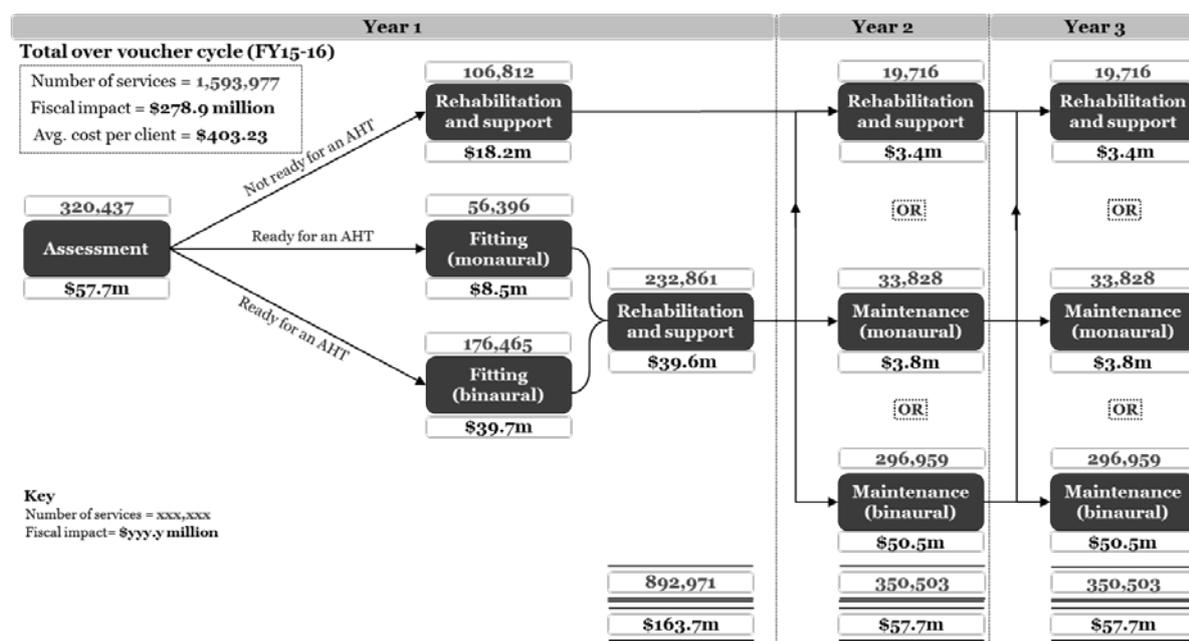
- Number of hearing services under all scenarios are a function of FY15-16 hearing services reported by the Department in their Population Model (prototype, updated 5 June 2017) after mapping to the new simplified and unbundled structure (see Appendix F). This is taken to represent the total number of services over a voucher cycle at a point in time.

The MHLT has not been adjusted.

The following set of assumptions apply to the core estimate scenario, which has been visualised in Figure 19 below.

- Service usage is capped to the number of services resulting from unbundling the current schedule of services (see Appendix F, for their mapping).
- Those who are not ready for an AHT will only be able to access rehabilitation and support services over the entire voucher cycle.

Figure 19 Service pathway costing under the projected impact scenario



Source

Department of Health and PwC Analysis.

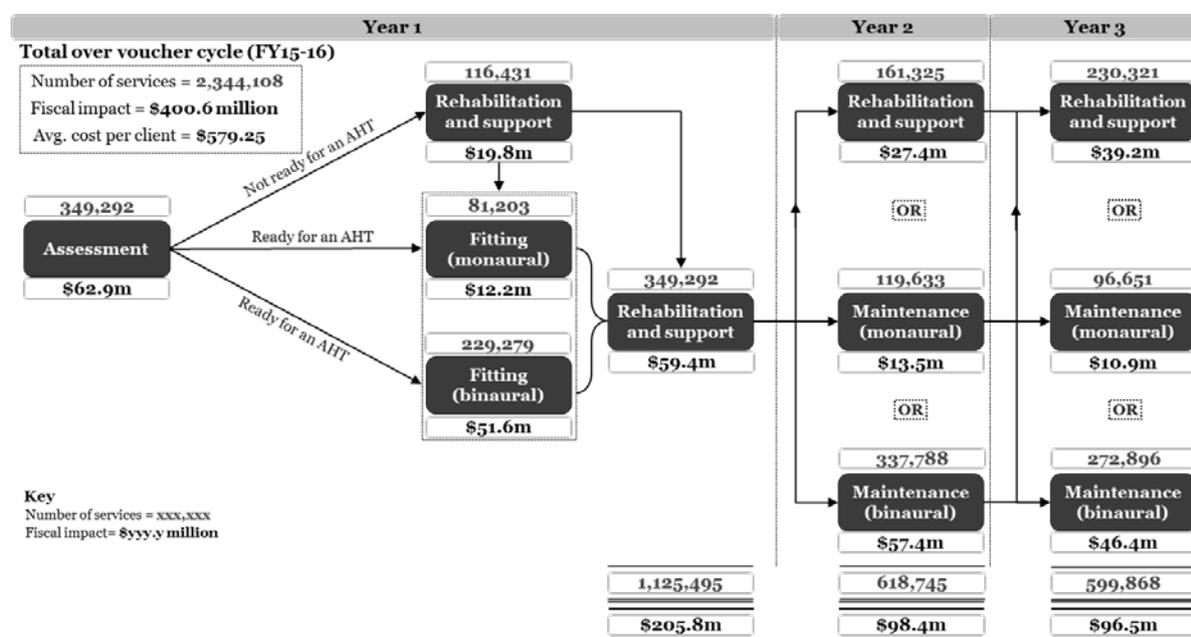
Notes

Number of services and fiscal impact per service item may not sum to their total due to rounding.

The following set of assumptions apply to the upper boundary scenario, which has been visualised in Figure 20..

- Assessments are derived by dividing the number of fittings in the projected impact scenario with the percentage of individuals who are not psychologically ready for an AHT when first treated (67% of assessments²⁸³). This means that the fittings in FY15-16 are assumed to be clinically appropriate and not solely a profit-maximising activity.
- Clients who receive an initial rehabilitation and support service, and are determined as being psychologically ready for an AHT (67% of initial rehabilitation and support services²⁸⁴), are fitted for an AHT. These clients will also be eligible to receive a second rehabilitation and support service after being fitted.
- Clients who are not ready for an AHT after their initial rehabilitation and support service (33%), are eligible to receive a second rehabilitation and support service.
- Those clients who receive a fitting, regardless of whether they received an initial rehabilitation and support service, are able to receive a second rehabilitation and support service.

Figure 20 Service pathway costing under upper boundary scenario



Source

Department of Health and PwC Analysis.

Notes

Number of services and fiscal impact per service item may not sum to their total due to rounding.

Differential benefits

The recommended prices have been mapped to the current schedule of services and compared to the total benefit claimable in FY15-16. This has been depicted in Table 32 below.

Table 32 Differential benefit under the simplification and unbundling of services

Item number	Service description	Total benefit (incl. GST, FY15-16)	Equivalent benefit under recommended price (incl. GST, FY15-16) ^a	Differential benefit (incl. GST, FY15-16) ^b	Fiscal impact of differential benefit (FY15-16)
3	Dispensing Fee	\$25.60	\$215.00	\$188.94	\$1,511
6	Miscellaneous	\$160.24	\$142.00	-\$18.74	-\$3,411
600	First Assessment	\$134.35	\$180.00	\$45.65	\$4,689,305
610	Audiological case management	\$42.65	\$180.00	\$137.35	\$1,483,929
630	Initial fitting, rehabilitation and maintenance- Monaural	\$429.39	\$433.00	\$3.61	\$33,068
631	First H/Aid Fitting with a Non Follow up appointment- Monaural	\$214.99	\$150.00	-\$64.99	-\$7,734
635	Initial fitting, rehabilitation and maintenance- NAD	\$193.85	\$499.00	\$305.15	\$62,556
636	Initial Fitting NAD with a Non Follow up appointment	\$97.35	\$188.00	\$90.15	\$1,623
640	Initial fitting, rehabilitation and maintenance- Binaural	\$538.32	\$565.00	\$26.68	\$1,553,923

Item number	Service description	Total benefit (incl. GST, FY15-16)	Equivalent benefit under recommended price (incl. GST, FY15-16)^a	Differential benefit (incl. GST, FY15-16)^b	Fiscal impact of differential benefit (FY15-16)
641	First H/Aid Fitting with a Non Follow up appointment-Binaural	\$270.07	\$225.00	-\$45.07	-\$34,839
650	Initial fitting and rehabilitation - Monaural	\$417.00	\$320.00	-\$97.00	-\$16,490
651	First H/Aid Fitting without maintenance. with a Non follow up appointment-Monaural	\$208.50	\$150.00	-\$58.50	-\$6,260
655	Initial fitting and rehabilitation - NAD	\$175.95	\$358.00	\$181.55	\$241,098
656	Initial Fitting NAD without maintenance with a no follow-up appointment	\$88.00	\$188.00	\$99.50	\$9,751
660	Initial fitting and rehabilitation - Binaural	\$500.20	\$395.00	-\$105.20	-\$83,529
661	First H/Aid Fitting without maintenance. with a Non follow up appointment-Binaural	\$250.10	\$225.00	-\$25.10	-\$15,738
670	Rehabilitation Service	\$194.20	\$170.00	-\$24.20	-\$5,251
680	Rehabilitation Plus	\$137.55	\$170.00	\$32.45	\$26,998
681	Rehabilitation Plus	\$68.30	\$170.00	\$101.70	\$421,038
700	Maintenance and battery supply - Monaural	\$72.77	\$113.00	\$40.23	\$1,933,212
710	Maintenance and battery supply - Binaural	\$192.68	\$170.00	-\$22.68	-\$10,558,130
711	Relocated maintenance and battery supply - Monaural	\$116.08	\$113.00	-\$3.08	-\$3,166
722	Relocated maintenance and battery supply - Binaural	\$235.99	\$170.00	-\$65.99	-\$853,977
760	Subsequent initial fitting, rehabilitation and maintenance	\$111.34	\$547.00	\$435.24	\$2,367,292
761	Fitting of second Hearing Aid with a Non Follow up appointment	\$56.44	\$215.00	\$158.10	\$5,850
770	Subsequent initial fitting and rehabilitation	\$79.00	\$385.00	\$305.54	\$135,964
771	Fitting of second H/Aid without maintenance and Non follow up appointment	\$39.50	\$215.00	\$175.04	\$8,927
790	Maintenance and battery supply - Monaural (Private)	\$72.77	\$113.00	\$40.23	\$5,672
791	Maintenance and battery supply - Binaural (Private)	\$192.68	\$170.00	-\$22.68	-\$21,954
800	Reassessment	\$134.35	\$180.00	\$45.65	\$8,961,415

Item number	Service description	Total benefit (incl. GST, FY15-16)	Equivalent benefit under recommended price (incl. GST, FY15-16) ^a	Differential benefit (incl. GST, FY15-16) ^b	Fiscal impact of differential benefit (FY15-16)
810	Audiological case management	\$42.65	\$180.00	\$137.35	\$1,456,322
820	Refitting and rehabilitation - Monaural	\$358.40	\$320.00	-\$38.40	-\$596,275
821	Refit with a Non Follow up appointment - Monaural	\$179.20	\$150.00	-\$29.20	-\$8,964
825	Refitting and rehabilitation - NAD	\$123.70	\$358.00	\$233.80	\$130,227
826	Refit NAD with a Non follow up appointment	\$61.85	\$188.00	\$125.65	\$7,665
830	Refitting and rehabilitation - Binaural	\$356.20	\$395.00	\$38.80	\$3,395,582
831	Refit with a Non Follow up appointment - Binaural	\$178.10	\$225.00	\$46.90	\$58,203
900	Minor Repairs - Monaural	\$55.11	\$113	\$57.89	\$3,184
910	Minor Repairs - Binaural	\$106.81	\$170	\$63.19	\$24,139
930	Client Review - Monaural (previously known as Aid Adjustment)	\$75.75	\$170	\$94.25	\$1,492,920
940	Client Review - Binaural (previously known as Aid Adjustment)	\$117.35	\$170	\$52.65	\$9,408,134
				Total (excl misc items)	\$25,703,790
				Misc. items	\$11,901,486
				TOTAL	\$37,605,276

Notes

All figures expressed in FY2015-16 prices. Excludes service items 1, 2, 4, 5, 555, 777, 840, 850, 888, 960. Together these service items represent a fiscal impact differential (FY15-16) of \$11,901,486.

- a. Represents a counter-factual figure, which is a benefit that would have otherwise been applicable if the recommended prices under the simplification and unbundling of services were applied to the current schedule of service items and fees – in effect bundling what would otherwise be unbundled. The benefit was calculated by using the mapping described in Appendix F under “Allocation of services”, multiplying each allocated service by its recommended cost.
- b. Fiscal impact associated with the differential benefit, including excluded service items, is \$37.6 million. It reflects the difference between actual FY15-16 spend, and the projected impact under the simplification and unbundling of services. See Table 15.

Appendix F The Efficient Price Impact Model

This appendix has been removed as it contains proprietary PwC information

Appendix G Questions asked in survey questionnaires

Questionnaire for Device Manufacturers

1. Question 1 was the introduction to the survey, and was not actually a question.
2. How many OHS service providers does your organisation supply (please provide an estimate of the number of separate businesses, rather than locations)?
3. Are all OHS service providers able to purchase your organisation's products, if they wish to do so?
4. If no, how does your organisation select appropriate service providers to offer your products (select all that apply. Possible responses to choose from included quality of services they provide to the client, other brands they stock, likely volume of sales, exclusivity arrangements, commercial arrangement, my organisation's service providers are part of or affiliated to my organisation, not applicable all OHS service providers are able to purchase from my organisation)?
5. Please select the top three reasons for OHS service providers ordering your organisation's assistive hearing technology items (possible responses to choose from included customer demand, quality of the product, availability of supply, greater margins on the product, discounts on products offered to OHS service providers, range of products offered, quality of supporting services like warranty and repairs, part of the same business, exclusivity arrangement, other).
6. If you selected 'Other' above, please specify.
7. Is your organisation operating / planning to operate a vertically integrated supply chain, e.g. by owning or having a financial interest in an OHS service provider?
8. What proprietary information do you share with OHS service providers (select all that apply. Possible responses to choose from included financial performance, de-identified aggregated client data, marketing and business plans, process information, research and development information, contractual arrangements with other OHS service providers, ownership details, none, other)?
9. If you selected 'Other' above, please specify.
10. Inventory that relates to a OHS service provider is mostly managed through (Possible responses to choose from included your organisation (i.e. no physical stock on the premises), credit terms (i.e. OHS service provider stocks inventory that has been acquired through credit), outright purchasing (i.e. the OHS service provider pays you in-full for the inventory they stock).
11. If you selected 'Other' above, please specify.
12. In the 2015-16 financial year what was the total revenue of your organisation?
13. In the 2015-16 financial year what was the volume of assistive hearing technology items your organisation sold?
14. What is the current number of employees in your organisation?
15. Does your organisation incorporate the costs associated with the servicing or maintenance of assistive hearing technology items into the price paid by OHS service providers?
16. What percentage of your organisation's assistive hearing technology items are sold to customers through the Program?
17. What percentage of your organisation's assistive hearing technology items sold are 'top-up devices'?
18. What is your organisation's average profit margin on assistive hearing technology items sold by OHS service providers (as a percentage of the price paid by the OHS service provider)?

19. What incentives has your organisation offered to OHS service providers in their procurement of assistive hearing technology items (select all that apply. Possible responses to choose from included discounts on items sold to OHS service providers, loans or other financing options, credit for assistive hearing technology ordered, purchase assistive hearing technology for the OHS service provider, assistive hearing technologies available on a return for credit basis, training or professional development opportunities, none, other)?
20. If you selected 'Other' above, please specify.
21. What is the average discount your organisation gives to OHS service providers for assistive hearing technology items (as a percentage of the standard undiscounted price)?
22. Has your organisation ever offered an exclusivity arrangement to an OHS service provider (i.e. where possible, they only offer your organisation's assistive hearing technology items)?
23. Does your organisation currently operate any exclusivity arrangements with OHS service providers?
24. Is your organisation generally satisfied with the current supply arrangements of the Program?
25. If any changes are made to the supply arrangements of assistive hearing technology, what is the timeframe in which you would prefer change to occur?

Questionnaire for contracted service providers

1. Question 1 was the introduction to the survey, and was not actually a question.
2. Are you a practitioner or an OHS service provider owner / director / signatory to a service provider agreement with OHS?
3. In the 2015-16 financial year what was the volume of assistive hearing technology items your organisation sold?
4. In the 2015-16 financial year what was the total revenue of your organisation?
5. What percentage of your organisation's revenue comes from the sale of assistive hearing technology items compared with providing services (e.g hearing assessments) to clients?
6. What percentage of your organisation's revenue comes from the sale of assistive hearing technology other than hearing aids?
7. What percentage of your organisation's revenue comes from the Program?
8. What proprietary information does your organisation share with assistive hearing technology manufacturers (select all that apply. Possible responses to choose from included financial performance, de-identified aggregated client data, marketing and business plans, process information, condition of equipment held, ownership details, none, other)?
9. If you selected 'Other' above, please specify.
10. What is the current number of employees in your organisation?
11. In the 2015-16 financial year what was the volume of assistive hearing technology items your organisation sold?
12. In the 2015-16 financial year what was the total revenue of your organisation?
13. What percentage of your organisation's revenue comes from the sale of assistive hearing technology items compared with providing services (e.g hearing assessments) to clients?
14. What percentage of your organisation's revenue comes from the sale of assistive hearing technology other than hearing aids?
15. What percentage of your organisation's revenue comes from the Program?

16. What proprietary information does your organisation share with assistive hearing technology manufacturers (select all that apply. Possible responses to choose from included financial performance, de-identified aggregated client data, marketing and business plans, process information, condition of equipment held, ownership details, none, other)?
17. If you selected 'Other' above, please specify.
18. What is the current number of employees in your organisation?
19. Is your organisation a vertically integrated OHS contracted service provider, which an assistive hearing technology manufacturer has a financial interest in or owns?
20. How many brands of assistive hearing technology items does your organisation usually stock?
21. Please select the top three reasons for procuring an assistive hearing technology from a specific device supplier (Possible responses to choose from included customer demand, quality of the product, greatest margins the products, commission paid on products/discounts given to your organisation, range of products offered, quality of supporting services, part of the manufacturers company, exclusivity arrangements with a particular assistive hearing technology manufacturer, other)?
22. If you selected 'Other' above, please specify.
23. What percentage of assistive hearing technology items that you supply to clients are 'top-up devices'?
24. What is your organisation's average commission paid to practitioners for each assistive hearing technology item sold (as a percentage of the price paid by the client)?
25. What is your organisation's average profit margin on assistive hearing technology items (as a percentage of the price paid by the client)?
26. Have any of the following ever been offered to you by an assistive hearing technology manufacturer as an incentive to stock and sell their products? Please select those that have been offered (possible responses to choose from commissions, volume discounts, purchase assistive hearing technology items on credit, loan or other financial options, manufacturer to purchase assistive hearing technology items for you, assistive hearing technology items available on a return for credit basis, training or professional development opportunities, none, other
27. If you selected 'Other' above, please specify.
28. Has an assistive hearing technology manufacturer ever offered you an exclusivity arrangement (i.e. where you only stock their product)?
29. When ordering an assistive hearing technology item from a manufacturer, inventory is mostly managed through. (Possible responses to choose from included your organisation (i.e. no physical stock on the premises), credit terms (i.e. OHS service provider stocks inventory that has been acquired through credit), outright purchasing (i.e. the OHS service provider pays you in-full for the inventory they stock).
30. If you selected 'Other' above, please specify.
31. Is your organisation generally satisfied with the current supply arrangements of the Program?
32. If any changes are made to the supply arrangements of assistive hearing technology, what is the timeframe in which you would prefer change to occur?

Appendix H Stakeholders consulted

Stakeholder Name	Organisation	RoSIF 1	RoAHT 1	RoAHT 2
Lisa-Jane Moody	National Disability Insurance Agency	19 Aug 16	13 Jan 17	
Jake Winter	Department Of Human Services	19 Jul 16		
Simon Heath	Department Of Human Services	19 Jul 16		
Simone Pensko	Department Of Human Services	19 Jul 16		
Joy Russon	Department Of Veterans' Affairs	22 Jul 16		
Letitia Hope	Department Of Veterans' Affairs	22 Jul 16	3 Feb 17	
Veronica Hancock	Department Of Veterans' Affairs	22 Jul 16		
Anthony Hogan	Australian Society Of Rehabilitation Councillors	1 Aug 16		
Dr Lloyd Walker	National Disability Insurance Agency	19 Aug 16	13 Jan 17	
Greg Leigh	Royal Institute For Deaf And Blind Children	1 Aug 16		
Leonie Jackson	The Deaf Society	1 Aug 16		
Margaret Dewberry	Deafness Forum	1 Aug 16	10 Feb 17	
Steve Williamson	Deafness Forum	1 Aug 16	10 Feb 17	
Lindsay Simons	Hearsoft	2 Aug 16	24 Jan 17	
Fleur Henderson	Parents Of Deaf Children	2 Aug 16	10 Feb 17	
Sarah Love	Royal Institute Of Deaf And Blind Children		24 Jan 17	
Dr Louise Collingridge	Independent Audiologists Australia	1 Aug 16	27 Jan 17	
Narelle Akers	Royal South Australian Deaf Society	2 Aug 16		
Neala Mc Gregor	Huon Hearing	2 Aug 16		
Peta Monley	First Voice	2 Aug 16		
Tony Khairy	Hearing Aid Audiometrist Society		7 Feb 17	
Bill Davidson	Australian Hearing	3 Aug 16	6 Feb 17	
Gina Mavrias	Australian Hearing	3 Aug 16	6 Feb 17	9 Mar 17
Melinda Burgess	Southern Ent	3 Aug 16		
Michelle Barry	Better Hearing	3 Aug 16		
Nicole Bowden	Victorian Hearing	3 Aug 16		
Prof Robert Cowan	Hearing CRC	3 Aug 16		
Shaani Graves	Monash Medical Centre	3 Aug 16		
Ashley Wilson	Hearing Care Industry Association	9 Aug 16	6 Feb 17	
Donna Staunton	Hearing Care Industry	9 Aug 16	6 Feb 17	

Stakeholder Name	Organisation	RoSIF 1	RoAHT 1	RoAHT 2
	Association			
Erin Blum	Hearing Care Industry Association	9 Aug 16		
Janet Muir	Hearing Care Industry Association	9 Aug 16		
Lauren Mcnee	Hearing Care Industry Association	9 Aug 16		
Mike Smith	Hearing Care Industry Association	9 Aug 16		
Nina Quinn	Hearing Care Industry Association	9 Aug 16	6 Feb 17	
Dawn Rollings	Audioclinic	19 Aug 16		
Karen Bergensen	Audioclinic	19 Aug 16		
Department of Health Staff	Office Of Hearing Services	6 Jul 16	30 Jan 17	
Agnieszka Kosidlo	Better Hearing		10 Feb 17	
Allister Daly	GN ReSound Pty Ltd		2 Feb 17	
Amanda Quirk	Blamey Saunders Hearing Pty Ltd		3 Feb 17	
Andrew Willis	Word Of Mouth Technology Pty Ltd		30 Jan 17	
Brad Carlisle	Phoenix Hearing Instruments		6 Feb 17	
Colleen Psarros	Royal Institute For Deaf And Blind Children		28 Mar 17	
Dr Elaine Saunders	Blamey Saunders Hearing Pty Ltd		3 Feb 17	
Dr Harvey Dillon	National Acoustics Laboratories		2 Feb 17	
Joseph Segal	Evertone Pty Ltd		30 Jan 17	6 Feb 17
Erika Kayibi	Med-EI		10 Feb 17	
Glenn Broad	Sennheiser Australia Pty Ltd		03 Feb 17	
Grant Ewer	Sonova Australia Pty Ltd		06 Feb 17	
HAMADAA	HAMADAA		06 Feb 17	
James Battersby	Audmet Australia Pty Ltd		06 Feb 17	
James Vansen	Sivantos Pty Ltd		03 Feb 17	
Justin Gow	Widex Australia Pty Ltd		30 Jan 17	
Joy Russo	Department Of Veterans' Affairs		03 Feb 17	
Kumar Yogeswaran	Bhm Australia Pty Ltd		30 Jan 17	
Simon Mcmillan	Starkey Laboratories Australia Pty Ltd		30 Jan 17	6 Feb 17
KC Lim	Gm Bernafon		6 Feb 17	
Kevin Mcdonnell	Oricom International Pty Ltd		3 Feb 17	
Dr Tony Coles	Audiology Australia	2 Aug 16	31 Jan 17	

Stakeholder Name	Organisation	RoSIF 1	RoAHT 1	RoAHT 2
Lisa Mustukas	Silent Party Pty Ltd		3 Feb 17	
Nick Wilson	Department of Finance		28 Feb 17	
Paul Guthrie	Sivantos Pty Ltd		3 Feb 17	
Peter McKinnon	Sivantos Pty Ltd		3 Feb 17	
Rachel Figuraski	Department of Finance		28 Feb 17	
Robyn Shakes	Med-EI		10 Feb 17	
Ian Mawby	Australian College Of Audiology	2 Aug 16	31 Jan 17	
Shaun Hand	Cochlear Ltd.		10 Feb 17	
Jason Ridgway	Audiology Australia Limited		31 Jan 17	
Wendy Pearce	Australian Hearing		9 Mar 17	
Jay Krishnaswamy	Telethon Speech & Hearing		24 Jan 17	
Werner Schwendener	Sonic Innovations		6 Feb 17	

Appendix I Response template

Benefits of the Hearing Services Program

- Are there any clinically appropriate services or Assistive Hearing Technology that are not covered under the Hearing Services Program?
- How do we know if the wide range of services and Assistive Hearing Technology are working to improve outcomes for clients?
- How could the Voucher Scheme be streamlined further?
- How could changing the schedule of services improve a client's experience in the Voucher Scheme?
- Are minimum technical specifications needed to ensure the quality of Assistive Hearing Technology in the Hearing Services Program? Why or why not?
- Who should be responsible for setting minimum technical specifications?
- How long should Assistive Hearing Technology remain listed in the Hearing Services Program and what should be the process for their removal?
- What can be done to improve the information for clients on Assistive Hearing Technology available in the Hearing Services Program?
- What changes could the Hearing Services Program make now to ensure it can manage future technological advancements in the hearing sector?

Challenges of the Hearing Services Program

- If you are a client of the Hearing Services Program what are some of the main outcomes you have experienced personally?
- What measures could government adopt to foster an outcomes based approach to delivering hearing services?
- What role should client outcomes play in the Hearing Services Program?
- What are the drivers of growth for Assistive Hearing Technology in the Voucher Scheme?
- To what extent does cross-subsidisation between hearing services and the provision of Assistive Hearing Technology distort clinical and client outcomes?
- What changes to service items and Assistive Hearing Technology schedules would remove cross-subsidisation to ensure all aspects of a patient's pathway reflect the value they deliver?
- What role should rehabilitation and psychosocial supports have in the Hearing Services Program, and how should this role be reflected in the service schedule?
- Does the trend in provision of partially subsidised Assistive Hearing Technology reflect current clinical expectations or population trends? What are the other factors are potentially influencing this trend?
- What factors explain the range in the proportion of partially subsidised Assistive Hearing Technology supplied by Contracted Service Providers in the Voucher Scheme?
- What has driven an increase in the supply of higher-priced partially subsidised Assistive Hearing Technology?
- What do you consider to be the advantages or disadvantages of a partially subsidised schedule?
- What are the implementation issues associated with removal of the partially subsidised Assistive Hearing Technology schedule?
- How should the Hearing Services Program respond to the growth in easily accessible Assistive Hearing Technology and clients wishing to privately purchase their own Assistive Hearing Technology?
- Are Assistive Listening Devices appropriately supported by the Hearing Services Program? Why or why not?
- What mechanisms could be examined to ensure clients receive independent advice?
- How could consumer literacy on hearing loss and Assistive Hearing Technology be improved in the Hearing Services Program?

- Should the government introduce measures that define the role of audiologists and audiometrists to address concerns raised in the Australian Competition and Consumer Commission report? If so, what could these measures be?
- Is the current schedule of services too complex? If so, what can be done to simplify the schedule?
- How can the claiming rules better reflect the cost of personnel required to service clients using tele-audiology?
- How can government ensure equitable access to hearing services for 'at risk' client groups not covered under the Community Service Obligation?

International comparisons

- What aspects of the international comparisons outlined above could be adopted in the Hearing Services Program and why?

Viability assessment of alternative models

- Do you agree with the viability assessment of the alternative models? Why or why not?

Analysis of alternatives to service items and fees

- Are you broadly satisfied with the current Voucher Scheme and would prefer if it remained unchanged? Why or why not?
- Does the current mix of fee for service and bundled services provide sufficient flexibility to provide customised services to clients? Why or why not?
- Can the fee for service (hourly rate) model support the ongoing sustainability of contracted service providers in the industry?
- How do contracted service providers currently manage the additional costs of delivering services for regional and remote clients?
- Should fees be standardised based on the service provided? Or, is it appropriate for the fee to be based on qualification levels attained?
- What types of services are essential in a simplified schedule of services?
- Can a single efficient price be determined for a broad service category, given there are likely to be variations in the services delivered within that category?
- Why would unbundling enable providers to deliver a more customised and beneficial service to clients?
- What are the different types of rehabilitation services and when in the client journey should they be delivered to maximise client benefit? For example, do clients actually want to receive rehabilitation services after their Assistive Hearing Technology has been fitted?

Analysis of alternative Assistive Hearing Technology supply arrangements

- Do you think this supply arrangement is sustainable? Why or why not?
- What role should the Department of Health have in the supply arrangements of Assistive Hearing Technology?
- Do you think the Deed of Standing Offer is vital in regulating the Assistive Hearing Technology supply arrangement? Why or why not?
- How can the Department of Health ensure that Assistive Hearing Technology quality standards are met without relying on the Deed of Standing Offer?
- Do you think a market driven supply option would affect client access to Assistive Hearing Technology? Why or why not?
- What aspects of a market-driven supply arrangement are most important to you?
- How could a tender model provide a sustainable alternative to the current supply arrangements?
- What aspect of the tender model is most important to you?

Integration of options

- Complete the table below, by deleting the cross (✕) in the box where you think the alternative models would integrate well or deleting the tick (✓) in the box where you think the alternative models would not integrate well.

- Which combination of options would best support client outcomes and how could this be implemented?
- What is your preferred combination of options and why?

Service item options

AHT supply options	Maintain status-quo	Fee for service (hourly rate)	Simplification of services with alignment of prices	Simplification of services with separation of service items
Maintain status-quo	✓ / x	✓ / x	✓ / x	✓ / x
Amendments to the deed arrangements	✓ / x	✓ / x	✓ / x	✓ / x
Market-driven supply	✓ / x	✓ / x	✓ / x	✓ / x
Competitive tender	✓ / x	✓ / x	✓ / x	✓ / x

Glossary

Assistive Hearing Technology (AHT) Assistive Hearing Technology includes hearing aids, assistive listening devices, and cochlear and other implant technology.

Assistive Listening Device (ALD) A sub-category of Assistive Hearing Technology that can be used as a stand-alone device or in combination with a hearing aid. Assistive Listening Devices help the user to hear in a range of listening situations. This includes over the telephone, over distance, and in hearing a television.

Australian Hearing (AH) Australian Hearing is a statutory authority constituted under the *Australian Hearing Services Act 1991*. It is the sole provider of hearing services to the Community Service Obligation Program, although it is still able to service clients in the Voucher Scheme. Australian Hearing also undertakes research into hearing loss and related topics through the National Acoustic Laboratories.

Community Service Obligation (CSO) One component of the Hearing Services Program. The Community Service Obligation Program focuses on funding hearing services and AHT for children and young adults under the age of 26, adults with complex hearing needs, and eligible Aboriginal persons and/or Torres Strait Islander people over 50 years of age.

Contracted Service Provider (CSP) A Contracted Service Provider, or 'provider' is an entity that has signed a contract with the Department of Health to provide hearing service to eligible clients under the Hearing Services Program. A Contracted Service Provider goes through an accreditation process prior to being offered a contract under the Program. Contracted Service Providers must adhere to all clauses in the contract and the associated standards.

Deed of Standing Offer (the 'Deed') A Deed entered between the Australian Government and Device Manufacturers. It details the list of approved AHT, the maximum price paid for approved AHT, the conditions of AHT supply, and minimum specifications.

Device Manufacturers (DM) Also known as Device Suppliers, manufacturers provide AHT to eligible clients of the Hearing Services Program through the provision of AHT to Contracted Service Providers. Device Suppliers agree to a Deed with the Australian Government and must also seek approval of their AHT. Device Suppliers are also to be registered with the Department of Health.

Diagnosis-related Groups (DRG) A statistical system of classifying diagnoses into groups for the purpose of reimbursement.

Hearing Services Online (HSO) An online portal that supports the administration of the Hearing Services Program. The Hearing Services Online portal was implemented to transition the Hearing Services Program from paper-based processes to primarily electronic processes.

Hearing Services Program (HSP) Refers to the Australian Government Hearing Services Program, which was created to reduce the impact of hearing loss by providing eligible clients with access to hearing services and AHT. The Hearing Services Program is managed by the Department of Health.

Vertically Integrated Refers to the ownership or control by a firm of different stages of the production process.²⁸⁵ Vertical integration can also refer to 'non-standard' contractual arrangements or 'hybrid forms'. This can include long term contracts, franchise contracts, non-linear pricing arrangements, resale price maintenance agreements, requirements contracts, joint ventures, dual sourcing, among others.²⁸⁶

Voucher Scheme (VS) One component of the Hearing Services Program. The Voucher Scheme (VS) issues electronically recorded vouchers to eligible clients, allowing them to access a range of specified services and AHT.

Endnotes

¹ The Voucher Program provides eligible clients with an electronically recorded voucher, which provides access to a range of specific hearing services over a 3-year period. Most clients are aged pension concession card holders.

² Australian Hearing is the sole entity responsible for servicing the Community Service Obligation Program, which provides a more flexible range of services. These services are offered mainly to children and young adults to 26 years, adults with more complex hearing needs, and eligible Aboriginal persons and/or Torres Strait Islander people over 50 years of age.

³ Deloitte Access Economics reported that the total costs of hearing loss in 2017 was estimated as \$33.3 billion. See Deloitte Access Economics, *The Social and Economic Cost of Hearing Loss in Australia*, 2017. <http://www.hcia.com.au/hcia-wp/wp-content/uploads/2015/05/Social-and-Economic-Cost-of-Hearing-Health-in-Australia_June-2017.pdf>

⁴ KPMG, *Australian Hearing Report prepared for the Department of Human Services*, 2012. <<https://www.humanservices.gov.au/sites/default/files/documents/2012-11-23-australian-hearing-kpmg-report.pdf>>

⁵ The review of services and technology supply in the HSP represent the culmination of two separate reviews that were undertaken concurrently. This includes the Review of Service Items and Fees (RoSIF), and Review of the Supply of Assistive Hearing Technology (RoAHT).

⁶ Australian Medical Association, *Measuring Clinical Outcomes in General Practice – 2016*, 2016. <<https://ama.com.au/position-statement/measuring-clinical-outcomes-general-practice-2016>>. Weinstein, B.E, *Outcome Measurement in Audiology A Call to Action*, Hearing Journal, 68 (7), 2017, p.24-26 <http://journals.lww.com/thehearingjournal/Fulltext/2015/07000/Outcome_Measurement_in_Audiology_A_Call_to_Action.aspx>. Stowell, C. and Akerman, C., *Better Value in Health Care Requires Focusing on Outcomes*, 2015. <<https://hbr.org/2015/09/better-value-in-health-care-requires-focusing-on-outcomes>>. Department of Health, *Better Outcomes for People with Chronic and Complex Health Conditions – Report of the Primary Health Care Advisory Group*, 2015. <[https://www.health.gov.au/internet/main/publishing.nsf/Content/76B2BDC12AE54540CA257F72001102B9/\\$File/Primary-Health-Care-Advisory-Group_Final-Report.pdf](https://www.health.gov.au/internet/main/publishing.nsf/Content/76B2BDC12AE54540CA257F72001102B9/$File/Primary-Health-Care-Advisory-Group_Final-Report.pdf)>

⁷ Porter, M.E., *Outcome Measurement*, Harvard Business School, 2014. <http://www.hbs.edu/faculty/Publication%20Files/Website_Outcomes%20Measurement_737ae94d-f1b3-48ed-a789-025766d63670.pdf>

⁸ The measurement of outcomes in the hospital setting is more mature than the hearing services setting as evidenced by a range of documents that attest to the identification, collection, and reporting of outcomes. See a) Australian Commission on Safety and Quality in Health Care, *Core, Hospital-based Outcome Indicators*, 2017. <<https://www.safetyandquality.gov.au/our-work/information-strategy/indicators/core-hospital-based-outcome-indicators/>> b) Bureau of Health Information, *Exploring clinical variation in mortality – mortality following hospitalisation, seven clinical conditions, NSW, July 2012-2015*, 2017. <http://www.bhi.nsw.gov.au/data/assets/pdf_file/0003/356529/report-insights_exploring-clinical-variation-in-mortality-2017.pdf> and c) Australian Institute of Health and Welfare, *Australian hospital statistic 2012-13*, 2013. <<http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129547089>>

⁹ Department of Health, *Minimum Hearing Loss Threshold (MHLT)*, 2012. <http://www.hearingservices.gov.au/wps/wcm/connect/9d72901f-f144-44a0-a326-1d89723366e6/MHLT_Guidelines.pdf?MOD=AJPERES>

¹⁰ Communio, *Review of the Rehabilitation Plus Program – Final Report for the Australian Government Department of Health and Ageing*, 2011. <<http://www.hearingservices.gov.au/wps/wcm/connect/048aca79-85cf-4ff5-b1a3-504317391b2b/Rehabilitation+Plus+Program+Review+Final+Report+v1.0.pdf?MOD=AJPERES&Review%20of%20Rehab%20Plus%20Final%20Report>>

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¹² Communio, *Review of the Rehabilitation Plus Program – Final Report for the Australian Government Department of Health and Ageing*, 2011. <<http://www.hearingservices.gov.au/wps/wcm/connect/048aca79-85cf-4ff5-b1a3-504317391b2b/Rehabilitation+Plus+Program+Review+Final+Report+v1.0.pdf?MOD=AJPERES&Review%20of%20Rehab%20Plus%20Final%20Report>>

^{xiii} The review of services and technology supply in the HSP represent the culmination of two separate reviews that were undertaken concurrently. This includes the Review of Service Items and Fees (RoSIF), and Review of the Supply of Assistive Hearing Technology (RoAHT).

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- ^{xx} Ibid
- ^{xxi} The actual figure is likely to be smaller, given that estimates around the global hearing aid market do not consider the revenue associated with the provision of hearing services. Based on the estimated size of the global hearing aid market in 2016 of USD\$8.9 billion as indicated by Global Markets Insights. This was converted into Australian dollars by using the average daily exchange rate in FY2015-16 as reported by the Reserve Bank of Australia, resulting in a value of AUD\$11.5 billion. Alternative estimates have been provided by William Demant Holdings, which indicate that the market value of Australia is about 3% of the global market. See a) Global Markets Insights, *Audiology Devices Market Size by Product*, 2016. <https://www.gminsights.com/industry-analysis/audiology-devices-market-report?utm_source=globenewswire.com&utm_medium=referral&utm_campaign=Paid_Globnewswire> and b) Reserve Bank of Australia, *Historical Data – Exchange Rates – Daily – 2014 to Current*, 2017. <<http://www.rba.gov.au/statistics/historical-data.html#exchange-rates>> and c) William Demant Holdings, *Hearing Devices*, 2016. <<https://www.demant.com/~media/demant/main/media%20documents/investor%20relations/cmd%202016%20hearing%20devices.pdf>>
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