The Challenges of Outcome Measurement

A reflection by Susan Clutterbuck

Researchers, public servants, politicians, consumer organisations, professional associations and hearing care providers are in agreement that measurement of treatment outcomes is "a good thing". The recent PricewaterhouseCoopers report¹ identified a unified outcomes measurement process as a key recommendation for improving quality of hearing care for clients of the Hearing Services Program (HSP).

However, while there is agreement in principle, application is extremely challenging. Where is the evidence base for the "best outcome measure"? Which one of the 368 outcome tools² available is most applicable in Australia? Who is responsible for delivery and monitoring? Can the outcome tool be successfully applied both within and across providers? How can standardisation be ensured? Should there be a unified database for research and policy making?

Susan Clutterbuck, founder of EARtrak, has researched the challenges of outcome measurement for over 20 years. She believes the Hearing Services Program is in the unique position of holding the relevant client information (demographic and technological) for correlation against the client outcomes

data provided by surveying clients of the Program. We asked her to address a few of the key questions.

WHY DO YOU THINK THERE IS A NEED TO MONITOR THE OUTCOMES OF THE HEARING SERVICES PROGRAM?

The key aim of the HSP is to deliver effective treatment for eligible Australian people who have significant communication problems caused by loss of hearing ("reducing the burden of disease"). For most of these people, the loss of hearing acuity primarily involves the fitting of appropriate amplification (hearing aids), as part of their treatment.

Monitoring of the outcomes of clients of the Program should be a fundamental component to (a) ensure that treatment has been effective, and (b) justify public funding.

The Department of Health has not collected data on outcomes on the HSP for many years. EARtrak evidence suggests that the Program is failing to deliver consistent outcomes for its clients. Although contracted providers are required to adhere to a common set of contract conditions, there is wide variation in the outcomes of providers working under these



conditions (Figure 1). This is not the hallmark of a quality system.

The Department's Annual Report³ presents no data to demonstrate the effectiveness of the Program. Counting the number of vouchers issued, the number of services provided and the number of hearing aids fitted is documentation of activity, not documentation of effectiveness. In other words, the Department can provide evidence of how many hearing aids have been fitted under the Program, but cannot provide evidence of what proportion of those aids are actually worn, or with what benefit.

The Australian National Audit Office highlighted this lack of accountability by the Department in 2012. In response to the ANAO recommendation that OHS move towards a more outcomesfocused program, OHS modified the provider contract to mandate that providers should improve monitoring of their client outcomes. Comparison of outcomes for OHS clients between 2010 (old contract) and 2014 (new contract) shows that outcomes have actually deteriorated (Figure 2).

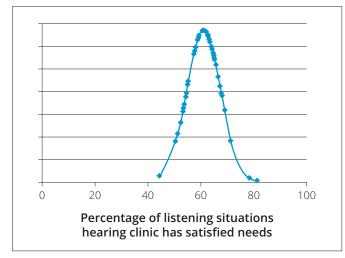


Figure 1/ Distribution of clinic scores (N = 53 clinics). Percentage of listening situations each clinic has satisfied client needs.

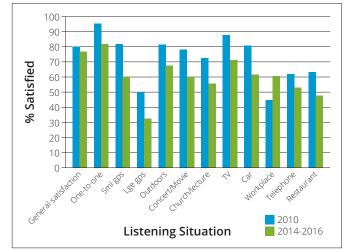


Figure 2/ Satisfaction with free-to-client hearing aids across listening situations – comparison of outcomes for OHS funded clients fitted under old (2010) and new (post-2012) OHS contract conditions. (EARtrak data, N = 53 clinics)

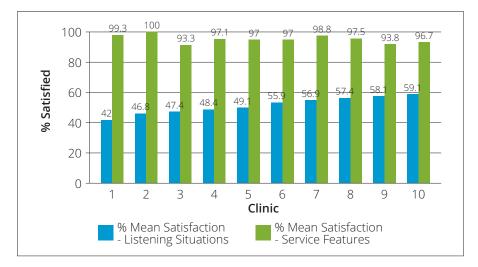


Figure 3/ Satisfaction with hearing improvement and satisfaction with service delivery results for 10 clinics (EARtrak data, 2010).

HOW CAN STANDARDISATION BE ASSURED?

Most of the major provider groups, including Australian Hearing, have internal outcomes measurement processes in place. While use of "inhouse" systems enables providers to monitor their outcomes, it also ensures that they control what data is presented to consumers and 3rd party funders looking for evidence of quality of care.

"In-house" systems do not enable comparison with the outcomes of providers outside their organisation, not only because different outcomes measures are used, but also because data are not shared. These problems have been recognised with the PwC recommendation for use of a standardised process for "comparison of outcome across peers at a national level."

Despite "general agreement on the importance of measuring client outcomes", the PwC review reported "there was no consensus on how to measure client outcomes." Waiting until there is agreement between stakeholders is likely to significantly delay implementation of meaningful measurement of outcomes. The Hearing Services Program is in the best position to implement a standardised outcomes measurement system applied across all contracted providers. Sweden has implemented such a standardised measurement system. It works5.

IS THERE A NEED TO MEASURE **OUTCOMES INDEPENDENT OF THE FUNDER OR SERVICE PROVIDER?**

"The successful provision of hearing health care ultimately comes down

to each individual patient's personal satisfaction with his or her hearing-aid outcome."4

Meaningful outcome measurement requires the recipient of the treatment to report their outcomes to an independent third party, not to their service provider or to the funder of their service. Swedish researcher, Dr Peter Nordqvist, has put forward the arguments for this, based on his experience measuring outcomes of hearing care in the Swedish health system.5

The provider is the most important variable in the delivery of a successful outcome, far exceeding the influence of the device technology level, client age or client level of hearing impairment.6 But when poor outcomes are achieved, clients typically blame themselves ("I didn't get on with the hearing aids...") or the devices ("The hearing aids didn't work...") and not their provider ("My audiologist was wonderful...") (Figure 3).

Similarly, most clients appreciate the generous support of government in funding their hearing care. This manifests itself not only in a very low level of formal complaints to the HSP, but also in over-estimation of hearing aid usage and outcomes. Clients might have concerns that, if they report poor current outcomes, this generous scheme might cease or be severely curtailed in the future.

WHY IS IT IMPORTANT TO MONITOR CLINIC PERFORMANCE AS PART OF THE RISK-BASED AUDIT PROCESS OF THE PROGRAM?

The HSP has no system for monitoring effectiveness of treatment for each

clinic. Audits are performed against meeting conditions of the contract, regardless of overall outcomes for the clinic. Provided clients do not make significant complaints (and very few do³), poorer performing clinics continue to be funded.

Without monitoring treatment effectiveness for each clinic, the HSP has no means of identifying outliers those clinics who are delivering poorer outcomes (less client satisfaction with hearing improvement, higher rates of non-use or limited use of hearing aids). A meaningful risk-based audit process could use this information to focus on those clinics with poorer outcomes, rather than treat all clinics equally.

SHOULD THERE BE A UNIFIED DATABASE FOR RESEARCH AND **POLICY-MAKING?**

The PwC report has clearly identified the need "to address the inconsistent approach to recording of data in order to capture broader trends in client outcomes at a program level." Australia is now falling behind many other countries (e.g. UK, Sweden, Norway, France) when it comes to monitoring the effectiveness of their system for hearing care delivery.5,7,8

EARtrak discussions with Australian researchers has highlighted their difficulty in accessing large volumes of real world data ("Big Data") to investigate the factors underpinning successful outcomes. The HSP potentially could be playing a key role in facilitating the collection of such data. No legislative changes would be required for implementing a unified system of outcomes measurement by this body.

This data would also be valuable for those responsible for making policy decisions. Numerous public reviews into hearing care outcomes have highlighted the dearth of data. It is fiscally and morally irresponsible for this situation to continue.

REFERENCES

- PricewaterhouseCoopers Report: Dec, 2017
- The ICF Core Sets for Hearing Loss, Reviewed in Audiology Now 71, p19.
- Australian Department of Health Annual Report, 2016-2017
- Northern, J.L The Hearing Journal June 2000, 53(6), pp 10-16.
- Nordqvist, P. 20Q: Hearing Aid Fitting and Big Data - Put Yourself in Context. www. audiologyonline.com May 2018.
- Clutterbuck, S. Audiology World News, Oct 2017 Findings from EuroTrak Surveys from 2009 to 2015 https://www.ncbi.nlm.nih.gov/ pubmed/29049628
- MarkeTrak 9 http://www.hearingreview. com/2015/05