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Research summary prepared by Brian Lamb. If you have any suggestions for further research summaries please let me know at ([brian@ciicanet.org](mailto:brian@ciicanet.org)).

## Research on the Take-up of Cochlear Implants

Patrick S. C. D’Haese, Vincent Van Rompaey, MD, Marc De Bodt, PhD and Paul Van de Heyning, MD. Can a Digital Awareness Campaign Change Knowledge and Beliefs Regarding Cochlear Implants? A Study in Older Adults in 5 European Countries. The Journal of Health Care Organization, Provision, and Financing Volume 57: 1–6. 2020.

Patrick D’Haese and colleagues have looked at digital awareness campaigns across European countries Sweden, Austria, Germany and the UK. The authors looked at the responses to adverts placed in online medical magazines and mainstream newspapers. The research looked at data collected from 400 subjects using an online market research questionnaire, in Sweden, Germany, Austria and the United Kingdom. They then compared this with baseline data collected in a previous study. The response rates were found to be in line with expectations for the medical industry and approximately 22 000 individuals visited the cochlear implant web site. They found that there were few significant differences between the two sets of data. Finding that “The Internet was consulted as much as the doctor for medical information in Germany, Austria, and Sweden.” The outcomes of this research show that a digital campaign which is more targeted towards people with hearing loss, “to provide them with basic information about what a cochlear implant is and how it functions, may be a very successful approach.”

The study concluded that the Internet was becoming increasingly important in accessing information about hearing loss and this was as important as information from doctors in three of the four countries covered.

**Key Insight:** in thinking about information campaigns it is therefore important to think about how your strategies encompass online communication campaigns.

The complete article can be accessed here:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7065036/>

## Choosing an Implant

Briony Dillon & Helen Pryce (2020). What makes someone choose cochlear implantation? An exploration of factors that inform patient decision making, International Journal of Audiology, 59:1, 24-32, DOI: 10.1080/14992027.2019.1660917

Dillon and Pryce have looked at individual motivations in the UK in choosing to have an implant but their work could easily be applied to other countries. Through individual interviews with 15

participants of different ages they explored with potential recipients what informed their thinking and final choice. They concluded that the choice was dependant on weighing up objective medical facts such as indicators for amplification and the medical benefits and risks with the patients subjective world of emotions, intentions and beliefs about the potential benefits. Decision making was complex, based on many different factors and highly personal to patients. This integrative approach to decision making needed to be considered when thinking of why people to choose to have an implant or not.

**Key Insight:** for awareness campaigns this suggests that communication strategies need to think of the overall needs and motivations of people thinking about CI and how they balance the opportunities and risks for their own lives. Simply relying on medical information on its own is unlikely to support the complex decision making process.

The complete article can be accessed here:

<https://www.tandfonline.com/doi/full/10.1080/14992027.2019.1660917>

## Patient Journeys

Frances Rapport, Sarah E. Hughes, Isabelle Boisvert, Catherine M. McMahon, Jeffrey Braithwaite, Mona Faris & Mia Bierbaum . Adults' cochlear implant journeys through care: a qualitative study.

BMC Health Services Research volume 20, Article number: 457 (2020)

The researchers note that rates of Cochlear Implantation remain low, and that there is limited research which investigates the journeys from I hearing aids to implantable devices.

They took fifty-five adults ( $\geq 50$  years), hearing aid users and/or CI users, General Practitioners, and Australian and United Kingdom audiologists took part in a multi-methods study. Focus groups, interviews, and surveys were thematically analysed to establish what the key themes were. The two main themes identified were 1) "The burden of hearing loss and the impact of Cochlear Implants", and 2) "Professional Support and Practice, and HCPs Roles and Responsibilities".

One strong theme to emerge was summarised by the researchers "HA and CI users suggested improvements need to be made to professional education, to better support adults to understand their options, enabling patients to receive better information early on, and providing greater access to CI services. Similarly, they talked about the need for health promotion campaigns to support greater awareness, understanding and empathy in the general public about what it means to have a hearing loss, the impacts and limitations of CIs and HAs and the need for improved support infrastructure, and services."

Further that "The results from this study have the potential to inform clinical practice with respect to public health. Our interpretation of participant accounts suggests that strategies to increase public awareness of hearing loss could empower patients to raise cochlear implantation with their HCPs, leading to timely referral to CI specialist programmes. Moreover, increased public awareness could empower patients' help-seeking behaviours, particularly with regards to information access."

The research concluded that "Care experience can include convoluted, complex journeys towards cochlear implantation. The significant impact of this, as hearing loss progresses, motivates people to consider implants, but they and healthcare professionals need clear support with defined referral pathways, and less system complexity."

**Key Insights:** The research provides further understanding of the support that patients need on their CI journey and the need for better information and public awareness and clearer referral pathways. The findings emphasise the important role that non-specialist professionals assume in this process and this needs more focus in ensuring that the right support is available.

The full article can be accessed here:

<https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-05334-y>

## Numbers of CI recipients Across Europe

Leo De Raeve, Sue Archbold, Monika Lehnhardt-Gorjany & Tricia Kemp (2020): Prevalence of cochlear implants in Europe: trend between 2010 and 2016, Cochlear Implants International <https://doi.org/10.1080/14670100.2020.1771829> Published online: 31 May 2020.

It is crucial to know what the current rates of fitting for Cochlear Implants are for Europe and if we are achieving greater access for patients. This is central to advocacy efforts in individual countries as comparisons can be a crucial tool in securing more funding and widening criteria.

The researchers sought to collect figures on the numbers of children and adults receiving cochlear implants across Europe, and then to compare the figures for 2016 with those for 2010 identifying any trends and make comparisons.

The researchers survey all the EURO-CIU member countries in 2018 collecting data on the number of CI recipients in 2016 and 2017. Data were received from 15 countries, representing more than 100 000 CI recipients in Europe.

The authors found that “For paediatric CI, there was an increase in nearly all European countries (except Denmark, the UK and Luxembourg) between 2010 and 2016. We found an annual figure of one CI per 1000 newborns common in most countries where reimbursement of paediatric CI’s is available. Conversely the adult data reveals no increase between 2010 and 2016 and the data is less homogeneous than the paediatric data with huge differences across countries.”

The authors note that there is little agreement on data on numbers of CI across Europe, which makes it difficult to plan public health policy, funding or services. They conclude that “In all European countries included in this study (except Germany) there needs to be work on raising more awareness of adult hearing loss and adult cochlear implantation to improve access.”

**Key Insights:** It is important for advocacy work to try and establish better recording of data, both with these figures suggest that for adults there appears to be little or no expansion of provision in most countries which is worrying at a time when provision should be expanding. It may be that with broader criteria being brought in by a number of countries post 2018 this may be changing, though data from the UK would suggest this has not happened yet. The disruption caused by COVID-19 will also make international comparisons more complicated for the next few years.

The abstract can be accessed here:

<https://www.tandfonline.com/doi/full/10.1080/14670100.2020.1771829?scroll=top&needAccess=true>