

ADULT COCHLEAR IMPLANT ADVOCACY:

Implications of the World Report on Hearing, 2021

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Cochlear implant is one of the most successful of all neural prostheses developed to date

(WRH, page 100)

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INTRODUCTION

ADULT COCHLEAR IMPLANT ADVOCACY

The World Report on Hearing (WRH) 2021 is a major milestone in bringing together our understanding of the causes and impact of deafness and hearing loss. It is also a global call to action for governments and societies including ensuring increased access to cochlear and other hearing implants.

For too long the importance of hearing which enables us to communicate with others, express our thoughts, be educated and take part in society has been underestimated as a public health and social issue.

The World Report on Hearing offers a once in a generation opportunity for advocates to promote the need for better awareness, access and support for people with hearing loss who could benefit from or use a cochlear implant.

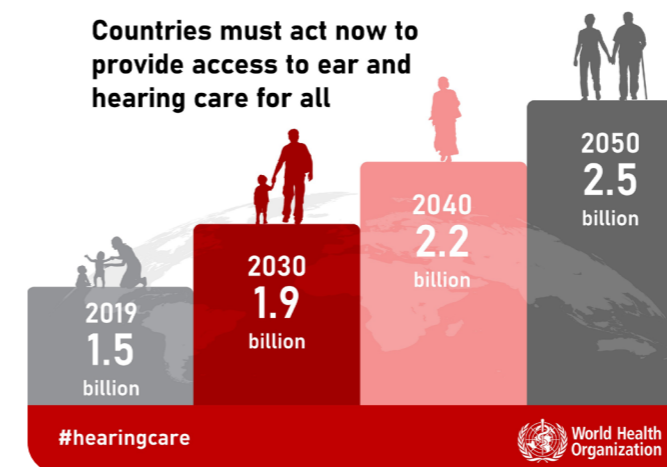
There is a huge global gap between those adults who have cochlear implants and those who could benefit and huge variation in support. The clear demonstration of the massive benefits to individual's health and wellbeing while also saving money for health and social care systems makes the case for need for cochlear implants to be put higher on the public health agenda across the world.

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Hearing loss is on the rise

Countries must act now to provide access to ear and hearing care for all



THE IMPACT OF HEARING LOSS

The report makes clear that deafness and hearing loss is a challenging global health and social issue that must be tackled.

The report is clear that we are facing a growing crisis. More than 1.5 billion people experience some degree of hearing loss and addressing this issue is one of the most significant challenges for Global Health.

“By 2050, it is estimated that some 2.5 billion (1 in every 4) people will experience hearing loss, with nearly 700 million (1 in every 14) living with moderate or higher levels of hearing loss in the better hearing ear . . . urgent public health action is needed to mitigate this projected growth.” (WRH, page 139)

The report illustrates that hearing loss is responsible for significant levels of disability in adults. In 2019 age-related hearing loss was the third largest source of global Years Lived with Disability and the leading cause for adults older than 70 years of age.

Unaddressed hearing loss has a significant impact on adults risk of developing dementia and addressing hearing loss early can mitigate this risk for the individual and associated costs for society.

“Hearing loss is the largest potentially modifiable risk factor for age-related dementia . . . unaddressed hearing loss may be responsible for over 8% of cases of dementia among older adults, and significantly increases the relative risk of dementia and cognitive impairment.” (WRH, page 46)

The Report estimates that the financial impact of *“Unaddressed, hearing loss imposes a global cost of more than \$ 980 billion annually.” (WRH, page 47)*

This includes costs related to health care, education, productivity losses, and societal costs. Many of these costs can be mitigated through the use of cost-effective interventions...

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Hearing is a key component of human intrinsic capacity; it is the sense most relied upon to communicate and engage with others. Any decline in hearing capacity at any point during the life course, if not addressed in a timely manner, can adversely affect day-to-day functioning.

(WRH, page 10)

COCHLEAR IMPLANTATION: ACCESS AND REHABILITATION

The Report recognises that hearing technologies, specifically including CI, are available to ensure that hearing loss can be addressed successfully.

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Cochlear implants are electronic devices, especially useful when a conventional hearing aid has little or no benefit or cannot be used

(WRH, page 98)

Cochlear implants have also been successful in addressing the negative impact of hearing loss for adults:

“In adults, the use of hearing aids and cochlear implants improves listening abilities and quality of life.” (WRH, page 103)

With the benefits shown, the criteria for implantation have changed:

“In recent years, the scope of implantation has been expanded to adults with severe to profound sensorineural hearing loss, who show improved speech perception and health-related quality of life with their use.” (WRH, page 98)

Rehabilitation therapy is also seen a crucial to ensure the success of cochlear implants for their users:

“Rehabilitative therapy is essential to ensure that people benefit from the use of their hearing aids and implants. Such rehabilitation improves the acceptability, effectiveness and cost-effectiveness of these devices.” (WRH, page 111)

The Report also makes clear that cochlear implantation must only take place *“where the supportive infrastructure for rehabilitation therapy exists” (WRH, page 100)* and outlines the potential benefits of telemedicine to provide such services:

“When applied effectively, telemedicine has the capacity to revolutionize the delivery of ear and hearing care and significantly improve the quality of health care by increasing accessibility and efficiency.” (WRH, page 158)

According to the report *“Age is not a barrier” for cochlear implant treatment. (WRH, page 105-106)*

KEY INSIGHTS FOR POLICY:

Severe to profound deafness has a massive negative impact on adults.

- Cochlear Implants are now the accepted intervention to address severe to profound deafness and hearing loss for adults
- Cochlear implantation is proven to be effective and cost-effective for adults
- Rehabilitation is essential to ensure the potential benefits of cochlear implantation are achieved
- Governments and health systems need to urgently invest in addressing hearing loss, including CI, age should not be a barrier
- Age should not be a barrier to considering a cochlear implant.

The high cost of inaction.

Unaddressed hearing loss costs over

\$980 billion

annually



This is more than the annual combined health expenditure of Brazil and China

#hearingcare



THE COST BENEFITS OF COCHLEAR IMPLANTATION

The Report recognises that hearing technologies, specifically including CI, are available to ensure that hearing loss can be addressed successfully.

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With unilateral cochlear implants, estimations based on actual costs in a high-income setting showed a return of 2.59 International dollars for every 1 dollar invested, and a lifetime value of DALYs averted of 38,153 dollars for each individual. In the example of a lower-middle-income setting, the return on investment ratio was 1.46 International dollars with a lifetime value of DALYs averted of 6,907 dollars. For an upper-middle-income setting, the return on investment ratio was estimated to be 4.09 International dollars with a lifetime value of DALYs averted of 24,161 dollars

(WRH, page 104)

WHO identify major costs associated with Adult Hearing loss including;

Lost Productivity: costs related to unemployment and premature retirement among people with hearing loss is conservatively estimated as \$182.5 billion annually.

Societal Costs: the result of social isolation, communication difficulties and stigma result in a further \$456.5 billion each year. (Figures WRH, page 49)

WHO calculates these costs based on the monetary value attached to the avoidance of a year lived with disability often referred to as disability-adjusted life years (DALYs) attributed to hearing loss. This is an internationally recognised standard which shows the impact on all areas of life and society.

The Global Burden of Disease (GBD) study on hearing loss, which informed the WHO report also argued that:

“Early rehabilitation along with use of hearing devices such as cochlear implants are also cost-effective, despite large costs associated with initial technology investments and the risks of infectious complications after implantation.” (The Lancet, Global Burden of Disease, March 2021)

KEY INSIGHTS FOR POLICY

- It is crucial that advocates use the cost benefit analysis and ensure that the costs of unaddressed hearing loss are clear to funders and health policy leads
- It is also important to focus on the savings that the provision of cochlear implants can bring.
- Advocates can play a major role in ensuring that the barriers identified by WHO are addressed through working with health systems and industry to tackle costs
- Advocates need to ensure that governments and commissioners are aware of the cost benefits of Cochlear Implants and support are available to support users.

SCREENING FOR HEARING LOSS AND DEAFNESS IN ADULTHOOD

Screening for hearing loss and deafness across the lifespan is a vital part of any strategy for addressing hearing loss and ensuring that early intervention including cochlear implantation, proven to be more effective, is possible.

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Early identification plus intervention enables best results . . . once hearing loss is identified, it is essential that it is addressed as early as possible . . . measures available to rehabilitate people with hearing loss include the use of hearing technology through hearing aids, cochlear implants and middle ear implants.

(WRH, page 66)

Many people struggle for years with the impact of unaddressed hearing loss before seeking help and for some it will mean that a cochlear implant may now be a more appropriate intervention.

“Despite the functional limitations associated with hearing loss, adults typically wait as much as nine to ten years before seeking any hearing care. To address this gap, it is essential to provide active screening services for older adults in an easy and accessible manner, followed by suitable interventions.” (WRH, page 90)

The report also comments on the positive influence on cognition of adult hearing screening:

“Adult Hearing Screening and Early Intervention have become even more relevant given the links between hearing loss and dementia in older adults.” (WRH, page 91)

Screening for adults has also been shown to deliver dramatic cost benefits even for older age groups:

“WHO made a conservative estimation of return on investment from hearing screening for adults aged above 50 years. Results based on actual costs estimated a possible return of 1.62 International dollars for every 1 dollar invested in hearing screening among older adults in a high-income setting, and 0.28 International dollars in a middle-income setting, taken as examples.

KEY INSIGHTS FOR POLICY:

- Hearing Screening is cost effective for adults over 50 and could play a major part in helping to address cognitive decline and delay the onset of dementia.
- Advocates should ensure that health funders and planners are aware of the potential benefits of adult screening.
- The cost benefits of screening and early intervention need to be taken in account and integrated into health strategies.
- Advocates should routinely point to the cost benefits for health systems of 1.62 International dollars for every 1 dollar invested in hearing screening in high income settings as well as improvements in life chances and quality of life for adults of screening.
- Adult screening allows earlier fitting of hearing aids and cochlear implants known to be more effective.

RECOMMENDATIONS FOR ADVOCACY WORK

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Highlight the importance, need, and means for ear and hearing care and advocate for its prioritization in government health agendas.

(WRH, page 250)

ADDRESSING HEARING LOSS AS A PUBLIC HEALTH ISSUE

WHO points to the lack of political leadership in making hearing loss a priority:

“The lack of leadership and governance is attributed to the lack of political attention, low perceived priority of hearing loss as a public health issue, and the lack of financial resources due to competing health priorities. Despite the high impact of hearing loss, availability of cost-effective interventions, and WHO-led global action, the challenge of limited financial resources to address hearing loss persists at global and country level.” (WRH, page 185)

WHO supports the idea of advocacy aimed at raising the profile of hearing loss within individual countries and internationally. Advocates need to campaign to push hearing loss up the political agenda of governments and commissioners. This means working to illustrate the high impact hearing loss has on health systems and individuals, using the evidence provided: *“Tailored communication and advocacy can be effective drivers for policy formulation. Such advocacy has to be undertaken at global, regional and national levels and be based on facts and figures supported by evidence.” (WRH, page 186)*

“Improve access to high-quality, affordable hearing technologies (hearing aids, cochlear implants and other assistive devices) and services required for their effective use.” (WRH, page 246)

WHO points out that additional investment is needed to scale up services and support:

“Annually, US\$ 1.33 per capita additional investment is required into the health system to scale up the identification, treatment, and rehabilitation of ear and hearing problems. Over a 10-year period, this promises a return (or gain) of nearly US\$ 16 for every 1 dollar invested.” (WRH, page 215)

Advocacy work, influencing the provision of Ear and Hearing Care (EHC) and particularly for cochlear implantation, is essential to close the gap in provision and the recognised variation. A key focus of the Report is the shift to people-centred Ear and Hearing Care in line with growing advocacy work. (WRH, page 276)

Moving towards people-centred care means:

“People in communities are viewed as partners in shaping both health policy and the series to be delivered through health systems.” (WRH, page 226)

The Report defines this shift as being from services being organised around individual diseases and health issues, to being organised around *“the comprehensive needs of individuals, families and communities . . .” (WRH, page 276)*

This *“integrated life-course approach is at the core of EHC provision”* and requires that people have *“awareness, education and support to make decisions.”* This is fundamental to advocacy work and the Report makes wide ranging recommendations for society to be able to address hearing loss.

Investment in hearing interventions is crucial if unaddressed hearing loss is to be tackled and public health improved. WHO summarises the approach in the following way:

“Key public health interventions for EHC provision across the life course are summarized in the acronym “H.E.A.R.I.N.G.”: Hearing screening and intervention; Ear disease prevention and management; Access to technologies; Rehabilitation services; Improved communication; Noise reduction; and greater community engagement. Implementing H.E.A.R.I.N.G. interventions can significantly benefit countries.” (WRH, page 202)

THE HEARING FRAMEWORK

WHO policy framework. Access to technologies are a key part of the WHO’s framework, and includes cochlear implants.

H HEARING SCREENING AND INTERVENTION

E EAR DISEASE PREVENTION AND MANAGEMENT

A ACCESS TO TECHNOLOGIES

R REHABILITATION SERVICES

I IMPROVED COMMUNICATION

N NOISE REDUCTION

G GREATER COMMUNITY ENGAGEMENT

ADDRESSING STIGMA

WHO notes in the report the important role played by fear of stigma in people not coming forward to address their hearing loss. They suggest that there needs to be:

“Awareness campaigns that address attitudes towards, and stigma related to, ear diseases and hearing loss.” (WRH, page 246)

“Raising awareness on hearing loss and reducing associated stigma through:

– *communication campaigns that provide accurate and accessible information.*

– *strengthening associations of people with hearing loss.” (WRH, page 181)*

ADVOCACY FOR COCHLEAR IMPLANTS IS VITAL

“Despite the effectiveness and cost-effectiveness of hearing amplification in rehabilitation, many challenges restrict their use and accessibility.” (WRH, page 104)

Specifically, with regard to cochlear implantation, while WHO notes that cochlear implants are *“one of the most successful of all neural prostheses developed to date”* their use to lessen the impact of deafness and hearing loss has been limited with considerable variation and a lack of take up of those who could benefit, including in high income countries. WHO concludes that there are significant barriers preventing the wider adoption of cochlear implants:

“With cochlear implants, there is limited research and data on access and factors limiting their use. However, as with hearing aids, issues such as high costs, and shortages of trained workforce and rehabilitation services, have resulted in their restricted accessibility to countries other than those in high-income groups – with considerable variation even within these.” (WRH, page 179)

WHO also points to the need to reduce the costs related to providing the latest hearing interventions and technology. Advocacy groups could look at campaigns to ensure that costs are reduced:

“Reducing costs by adopting measures such as waving import duties or taxes; pooled procurement; use of solar-powered batteries and locally-sourced materials; and innovative reimbursement schemes.” (WRH, page 181)

WHO also suggests that users need to be included in the development and design of technologies such as cochlear implants by ensuring:

“Research and innovation in design and delivery of hearing aids and cochlear implants to suit the unique requirements of countries, as well as development of user-driven hearing technologies that reflect the diverse needs of individuals with hearing loss.” (WRH, page 181)

THE REPORT SUGGESTS ACTIONS FOR ADVOCACY INCLUDING:

- “Establish and support regional and sub-regional multi stakeholder groups to identify region-specific needs, resources and opportunities, in collaboration with WHO.
- Join the World Hearing Day advocacy event each year as a means for raising the profile of ear and hearing care within communities and decision-makers at all levels.
- Organize national and sub-regional launch events and policy dialogues to disseminate and advocate for the adoption of recommendations made in the World report on hearing.
- Join and support the World Hearing Forum for promoting coordinated and collaborative global action on hearing loss.” (WRH, page 249-50)

COST BENEFIT OF ADDRESSING HEARING LOSS

An additional annual investment of

 **\$1.40**
per capita can:

benefit 1.4 billion people

bring a return of

\$16 for every \$ invested over 10 years



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INDICATORS OF PROGRESS

“Effective coverage of hearing technology (e.g. hearing aids and implants) use among adults with hearing loss: defined as the number of adults in a defined population having a perceived benefit through the use of hearing technology as a proportion of those with hearing loss (moderate or higher grade).” (WRH, page 224)

“A 20% relative increase in the effective coverage of adults with hearing loss that use hearing technology (i.e. hearing aids and implants), by 2030.

- Countries with effective coverage rates below 50% should strive for a minimum of 50% effective coverage.
- Countries with effective coverage rates of 50–80% should strive for a 20% relative increase in effective coverage.
- Countries with effective coverage rates currently above 80% should strive for universal coverage.” (WRH, page 224)

KEY INSIGHTS FOR POLICY:

- Over a 10-year period, investment in hearing care promises a return (or gain) of nearly US\$ 16 for every 1 dollar invested.
- Advocates could work with public health organisations and government departments to deliver awareness campaigns.
- Associations of people with hearing loss and CI can have a stronger coordinated voice in obtaining the necessary ongoing support for those with CI and their families
- Associations of people with hearing loss could be supported by Governments to provide examples and cases studies of the positive impact of taking action on unaddressed hearing loss.
- Cochlear implant provision should be part of the people-centred approach to Ear and Hearing Care
- Advocates who use cochlear implants can provide powerful role models for the benefits of taking action and reduce stigma.

SUMMARY

The World Report on Hearing (WRH) 2021, for the first time provides evidence for and recognises:

- The effectiveness, including cost-effectiveness, of today's hearing technologies, including specifically cochlear implants
- The variability in access to cochlear implantation and rehabilitation
- The crucial need for screening programmes, to ensure early intervention and early CI
- The importance of rehabilitation for adults to ensure maximum effectiveness of cochlear implantation
- The need for users to be involved in technology design and research
- The need to drive down costs of CI and rehabilitation in innovative ways
- The need to integrate hearing health care costs into government health care/insurance plans
- The value of evidence based advocacy work, including tele health and action in improving access to and quality of service provision

CONCLUSION

The World Report on Hearing offers a once in a generation opportunity for advocates to promote the need for better awareness, access and support for people with hearing loss who could benefit from or use a cochlear implant. The clear demonstration of the massive benefits to individual's health and wellbeing while also saving money for health and social care systems makes the case for need for cochlear implants to be put higher on the public health agenda across the world.

As WHO concludes the report is a:

"Wake-up call for health policy-makers across the world. To ensure that all world citizens can enjoy a state of optimum health and well-being. Adopting a people-centred approach that integrates ear and hearing care into national health care systems as part of universal health coverage is the only way to confront this growing challenge."

(WRH, page 244)

CIICA will be working with groups globally and regionally to support advocacy ensuring that there are resources to support advocates to ensure better awareness, access and support for cochlear implantation as part of the global drive to improve Ear and Hearing Care.

RELEVANT DOCUMENTS

You can find the documents referred to here at;

WHO World report on Hearing 2021 www.who.int/publications/i/item/world-report-on-hearing

The Lancet (2021). Hearing loss prevalence and years lived with disability, 1990–2019: findings from the Global Burden of Disease Study 2019. VOLUME 397, ISSUE 10278, P996-1009, MARCH 13, 2021 DOI: [doi.org/10.1016/S0140-6736\(21\)00516-X](https://doi.org/10.1016/S0140-6736(21)00516-X)

WHO. Integrated people-centred ear and hearing care. Policy Brief 2021. https://cdn.who.int/media/docs/default-source/documents/health-topics/deafness-and-hearing-loss/world-report-on-hearing/wrh-policy-brief-en.pdf?sfvrsn=cff40649_20&download=true

International Consensus statements on Adult Cochlear Implants www.adultheating.com

From more information and support on advocacy for better access and provision of Cochlear Implants go to www.ciicanet.org

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Note: We have put the relevant page numbers of the report – if you go to the report itself you will be able to find the evidence on which these points in the report are based.

Brian Lamb and Sue Archbold

