

Spend2Save: Investing in hearing technology improves lives and saves society money

Adult Hearing Loss: Europe's growing challenge

Hearing loss is one of the most challenging health and social issues facing Europe. Globally, the resolution of the World Health Organisation (2016a, May 2017) called for countries to integrate strategies for hearing care into health care systems and for greater access to hearing and communication technologies. Communication defines us and underlies our ability to function in the world: to relate to family, friends and partners, have a job, lead productive lives and maintain our health and wellbeing through social connections.

Hearing loss robs us of the ability to communicate and therefore impacts on every facet of life. Yet its impact often goes unnoticed and unaddressed.

- **52 million people** across Europe have hearing loss and this number is growing. (EFHOH 2016, 2018, AEA 2017, EHIMA 2017)
- Hearing Loss is the number one cause of Years Lost to Disability in those **over 70** in Western Europe. (Davis 2016)
- Those with severe hearing loss are at **five times** the risk of developing dementia as those with normal hearing. (Lin & Ferrucci 2012)
- Mid-life hearing loss may account for up to 9.1% of preventable dementia cases world-wide and is potentially a modifiable risk factor. (Livingston et al 2018)
- In older age people with hearing loss are at greater risk of social isolation and **reduced mental well-being**. (Shield 2006, Shield 2018, Pichora-Fuller et al 2015)
- Older people with hearing loss are **two and half times** more likely to experience depression than those without hearing loss (Mathews 2013) and are also at increased risk of major depression. (Amieva et al 2015, Davis 2011)
- Social isolation **has an effect on health** (Cohen 1995) and in older people there is a strong correlation between hearing loss and cognitive decline (Lin 2013), mental illness and dementia (Lin 2011, 2012) and premature death. (Friburg 2014, Contrera 2015)
- Hearing loss is associated with **greater use of medical and social services** (Xiao 2018, O'Neill 2016)
- Those with hearing loss have **higher rates of unemployment** and underemployment. (Kochkin 2007)



"...you lose self-esteem, you don't want to mix, anything like that because that's what deafness does to you.

"No social life. Feelings of isolation. Frustration. Unable to mix even with family.

"That was actually quite frightening. I was possibly going so deaf that I wouldn't be able to work properly.

Adult with hearing loss



Hearing Loss is a major unaddressed public health issue across Europe which leads to substantial costs to the individual and to public services (WHO 2016a)

Today's hearing aids, cochlear and other implants can change this:

- The latest hearing technologies, including hearing aids and implants, have been shown to change the lives of those with hearing loss and to be cost effective. (Lamb et al 2015, Morris 2012, Bond 2009)
- The effective use of hearing aids and implants is cost-effective and gives a Return on Investment of 10:1. (Kervasdoue and Hartmann 2016)
- The use of hearing aids and cochlear implants increases employability and earning power. (Kochkin 2010, Clinkard 2015)
- Hearing aids improve mental health, physical abilities, cognitive abilities, employability. (Amieva et al 2015, Contrera et al 2015, Kochkin 2012, Dept of Health/NHS England 2015, Cochrane review, Ferguson et al 2016, Mahmoudi et al 2018)
- The use of hearing aids is associated with less cognitive decline. (Deal 2015, Amieva et al 2015, Mahmoudi et al 2018)
- Hard of hearing people feel less stigma in wearing hearing aids and users are more satisfied. (Shield 2018, Eurotrak reports from www.ehima.com/documents)
- Hearing aid users report increasing usage. (Eurotrak reports from www.ehima.com/documents 2018)
- CI In adults improves quality of life, reduces depression and improves cognitive functioning. (eg Mosnier et al 2015, Lamb and Archbold 2014 and Ng et al 2016)
- In European countries with greatest access to hearing technologies, such as Denmark, the cost associated with use of other services such as primary care and inpatient stays by those with hearing loss is lower. (Lamb 2016)
- People with hearing loss put a very high economic value on the benefit of their cochlear implant. (Ng et al 2016)
- Criteria and access for cochlear implantation varies a great deal across countries (Archbold 2014) and access often below expected numbers who could benefit. (eg Raine 2013,2016)



"I feel that so much of my previous life and true self has been restored, regaining my pride and ability to contribute actively in society on an equal basis."

Adult with cochlear implants

Hearing aids and cochlear implants are well established interventions bringing very significant benefits in enhancing communication and ensuring higher quality of life with less risk of developing costly associated health problems such as dementia, depression and mental health issues, falls and social isolation.

People with hearing loss describe profound changes to their lives, including greater ability to communicate, less reliance on others for communication support, gaining and retaining employment, and increased independence for themselves, with less reliance on health and social care services.

The real cost of hearing loss . . .

There is increasing evidence within Europe and across the world of the economic impact of hearing loss to society to meet the increased medical and social costs incurred, and take into account lost earnings. Unaddressed hearing loss costs the global economy \$750 billion annually (*WHO 2016a*).

The annual economic costs to European countries has been estimated as:

GERMANY €30 BILLION

FRANCE €22 BILLION

UNITED KINGDOM €22 BILLION

ITALY €21 BILLION

SPAIN €16 BILLION

POLAND €14 BILLION

THE NETHERLANDS €6 BILLION



(*Duthey 2013*)

A more recent study in England found the costs associated with hearing loss were estimated at £30.13 billion per year, including medical and social costs (*Archbold, Lamb, O'Neil 2014*). In France, a recent estimation was 23.4 billion euros. (*Kervasdoué J Hartmann, L 2016*)

The cost of **NOT** providing hearing technologies has been shown to be greater than the cost of providing them. (*O'Neil et al 2016, Kervasdoué and Hartmann 2016*)

Health systems need to calculate the real health costs of hearing loss. Not providing hearing aids and cochlear implants should be seen as a massive risk. It stores up more costly demands on health services and social care for the future.

We need to change thinking and ensure that we include the cost of **NOT** addressing hearing loss when we calculate the public health costs of addressing hearing loss.

"Very confusing in meetings, not really knowing what was going on. I felt that I couldn't do my job."

"I lost my hearing suddenly and completely at the age of 24. I had a new baby so was on maternity leave. It was life changing. I lost all my confidence and was afraid of being left alone. I was unable to return to my job, as a solicitor."

Adults with hearing loss

Recommendations

Never have the opportunities been so great to address the communication and health needs of those with hearing loss. There have been advances in hearing aids and implants which has revolutionised their impact for those with hearing loss. The cost effectiveness of these hearing technologies has been proven and increases as their prices have fallen significantly and their effectiveness increased.

Hearing loss has a considerable impact for both the individual and society, but today something can be done about this to ensure today's technologies are available for all who need them:

- National Adult Hearing Screening Programmes should be introduced to ensure that people are more aware of hearing loss and take action early to improve health and wellbeing and prevent additional costs later.
- Funding of hearing technologies should take into account the high cost of NOT treating hearing loss.
- Funding schemes should include the full cost of hearing aids and cochlear implants as this would save money overall for the health, social care and welfare systems of states.
- Public health strategy should be developed in each European jurisdiction along the lines of the UK Action Plan on Hearing Loss to make hearing loss a focus of public health services.
- A review of candidacy criteria for cochlear implants and hearing aids in those European states with restrictive measures.
- Develop innovative service models including the latest innovations in teletherapy and health provision so that services can be delivered cost effectively.
- A new EU standard for patient provision for cochlear implants that mirrors EN 15927:2010 for hearing aid users should be introduced.

Increasing access to hearing technologies changes lives and saves society money. For the full report 'Spend to Save, a European strategy' visit www.earfoundation.org.uk/research

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