

Cochlear implantation in Australia: a retrospective analysis of 23 years of activity

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Supplementary Information

Table S1: Classification of cochlear implantation and removal as recorded by the Australian Institute for Health and Welfare

Year	Classification scheme	Classification codes and descriptions
2000/01 & 01/02	ICD-10-AM 2 nd Edition	41617-00 Implantation of cochlear prosthetic device 41617-01 Removal of cochlear prosthetic device (from 2002/03)
2002/03 & 03/04	ACHI 3 rd Edition	
2004/05 & 05/06	ACHI 4 th Edition	
2006/07 & 07/08	ACHI 5 th Edition	
2009/09 & 09/10	ACHI 6 th Edition	
2010/11 to 2012/13	ACHI 7 th Edition	
2013/14 & 14/15	ACHI 8 th Edition	
2015/16 & 16/17	ACHI 9 th Edition	
2017/18 & 18/19	ACHI 10 th Edition	
2019/20 to 2022/23	ACHI 11 th Edition	

Supplementary Figures

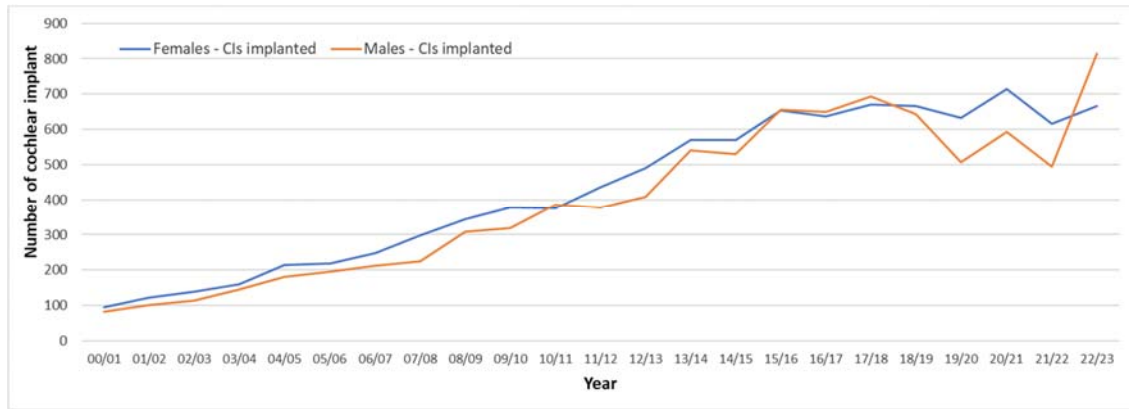


Figure S1: The number of devices implants in males and females in Australia from 2000/01 to 2022/23.

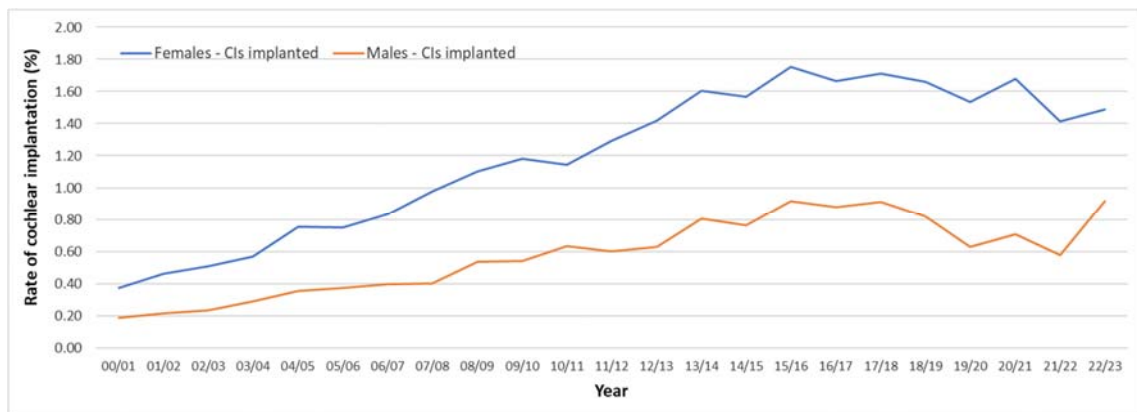


Figure S2: The rate of devices implants in males and females in Australia (number of devices/prevalence of severe/profound hearing loss, as a percentage) from 2000/01 to 2022/23.

Supplementary information A

Estimating bilateral cochlear implantation rates in Australia

- (i) An industry submission to the Australian Government in 2020 reported a bilateral implantation rate of around 30% across all ages, but without supporting information (1);
- (ii) A report using data from the Royal Victorian Eye and Ear Hospital Cochlear Implant Clinic, Australia, between 2000 and 2015, indicated that 19.2% of adults implanted were implanted bilaterally (2); additional unpublished data from the same centre from 2019 to 2023 indicates that the bilateral implantation rate for adults was 13.7% and 30.6% for children.
- (iii) Unpublished data from NextSense, NSW (n>4000) shows that 23% of adults and 61% of children (<=17 years) were implanted bilaterally.
- (iv) Unpublished Ear Science Implant Clinic data that shows that 22.2% of their cohort of over 1000 adults covering the period from 2001 to 2023 have bilateral cochlear implants.
- (v) The South Australian Cochlear Implant Centre's unpublished data show that 19% of their adult clients have bilateral cochlear implants.
- (vi) There is a variation across Australian states related to the availability of funding for a second implant, especially for adults.

References:

1. various. 2020-21 Pre- Budget Submission: Keeping Senior Hearing Implant Users Connected; Proposal to fund the replacement hearing implant sound processors for over 65s. undated.
2. Au A, Dowell RC. Evidence-Based Recommendation for Bilateral Cochlear Implantation in Adults. *Am J Audiol.* 2019;28(3S):775-82.