

**ASX / MEDIA RELEASE**

**10 MAY 2019**

**Cochlear Capital Markets Day**

Cochlear Limited, Sydney, 10 May 2019 (ASX:COH): Cochlear Limited is today hosting analysts to its annual Capital Markets Day at its global headquarters at Macquarie University. A copy of the management presentations is attached and includes:

Overview of strategic priorities	Dig Howitt CEO & President
Cochlear's innovation pipeline	Jan Janssen Chief Technology Officer
Remote check	Craig Sharp Group Product Manager, Connected Care
Building a market access capability	Fernando Gonzalo Head of Global Market Access and Health Economics
Strengthening links to the hearing aid channel	Michele Fusco Vice President, Strategic Growth Channels Cochlear Americas

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## Strategic priorities

Dig Howitt CEO & President

Cochlear Capital Markets Day – 10 May 2019

*Hear now. And always*



## Agenda: Focus on adults & seniors



Overview of strategic priorities

Dig Howitt

Cochlear's innovation pipeline

Jan Janssen

Remote check

Craig Sharp

Building a market access capability

Fernando Gonzalo

Strengthening links to the hearing aid channel

Michele Fusco

Panel discussion

All presenters

# Cochlear's mission



We help people hear and be heard.

We **empower** people to connect with others and live a full life.

We **transform** the way people understand and treat hearing loss.

We **innovate** and bring to market a range of implantable hearing solutions that deliver a lifetime of hearing outcomes.

# Global footprint



**550,000+**  
implants sold

**A\$160m+**  
in annual R&D investments

**A\$1.3b+**  
in annual sales revenue

**3,500+**  
employees around the world

**30+**  
countries with direct operations

**100+**  
collaborative research programs worldwide

**5**  
key manufacturing sites

# Strategic priorities



## Retain market leadership

Market-leading technology | World-class customer experience



## Grow the hearing implant market

Awareness | Market access | Clinical evidence



## Deliver consistent revenue and earnings growth

Invest to grow | Operational improvement | Strong financial position

# Commitment to technology leadership

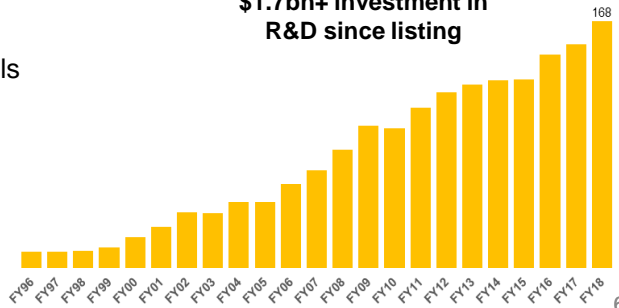


Retain market leadership

## R&D investment strengthens our **market-leading technology** position

- Continued R&D investment at ~12% of revenue
- Product and service R&D spans:
  - Implants & sound processors
  - Sound coding
  - Clinical & surgical tools
- Future focus:
  - Hearing outcomes
  - Lifestyle
  - Hearing indications
  - Connected care

**\$1.7bn+ investment in R&D since listing**



# Market-leading product portfolio



Retain market leadership

**Cochlear implants**  
(88% of revenue)



### Bone conduction implants

**Acoustic implants**  
(12% of revenue)



### Acoustic implants



7

# Deepening connection to customers



Retain market leadership

Providing a **world-class customer experience** empowers people to connect with others and live a full life and creates a brand halo for candidates

Meaningfully engage with more recipients

Create world class customer experiences



Drive upgrade penetration

Create new services and revenue



8

# Strategies to improve awareness and access vary by segment



Grow the hearing implant market



Adults & seniors  
Developed markets

Current penetration: 3%

Increase penetration



Children  
Developed markets

Current penetration: 60%

Grow share



Children  
Emerging markets

Current penetration: 10%

Increase penetration, funding and affordability

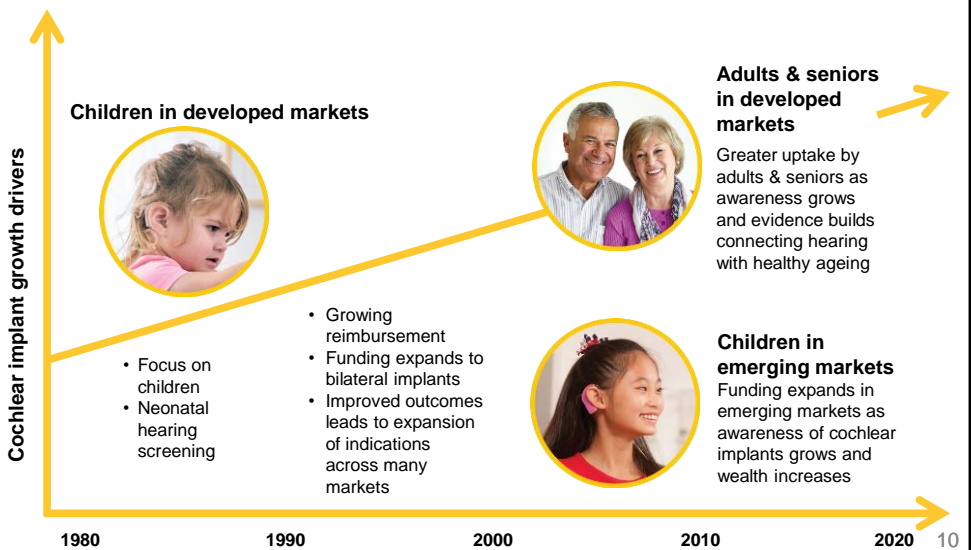
\* Estimate based on information available to Cochlear

9

# Growth is shifting to under-penetrated segments



Grow the hearing implant market



# For adults & seniors, the goal is to build a clear and consistent referral pathway



Increase penetration in adults & seniors

## Candidate

**Goal:** Motivated to treat hearing loss with the best available solution

**Initiatives:**  
- DTC



## Non-CI professional

**Goal:** Understands the indications for CI candidacy and when to refer

**Initiatives:**  
- CPN, Cycle  
- Standard of care



## CI professional

**Goal:** Counsels objectively and services efficiently

**Initiatives:**  
- Standard of care



## Payer

**Goal:** Understands the value of treating severe to profound hearing loss and the value and effectiveness of CI relative to alternatives

**Initiatives:**  
- Market access  
- Standard of care



# Three programs for driving growth of the adults & seniors segment



Increase penetration in adults & seniors



Continue to expand successful direct-to-consumer marketing activities



Build referrals from the hearing aid and ENT channels



Support initiatives to deliver a consistent treatment pathway for adults with severe to profound hearing loss

# Direct to consumer marketing



Increase penetration in adults & seniors

DTC builds awareness of cochlear implants directly with consumers

- **Target market:** highly motivated CI candidates seeking a better hearing solution than high powered hearing aids
- **Provides a clear pathway to care:** information, links candidates to surgeons, clinicians and volunteers
- **Drives conversion:** Meaningful contributor to sales in the US, with deeper penetration of senior adults than other markets (6% v 3% avg)
- **Opportunity to continue to drive surgeries in existing markets and expand activities:** now in 15 markets
- **DTC grows the market:** ~90% of leads have never been to a CI clinic



# Hearing aid channel referrals



Increase penetration in adults & seniors

CPN and Sycle aim to drive referrals from the hearing aid channel, where the majority of CI candidates are

- **Why hearing aid audiologists don't refer:**
  - Don't know indications for CI
  - Don't know where to refer
  - CI is not part of current clinical practice
- **Key ways to build referrals from the HA channel:**
  - **Cochlear Provider Network** – links surgeons with hearing aid clinics
  - **Sycle** – educates and incorporates CI into the current workflow
  - **Education** – demonstrating the effectiveness of implantable solutions relative to hearing aids for:





# Standard of care



Increase penetration in adults & seniors

Standard of care initiatives aim to establish a consistent process for diagnosing and referring CI candidates by all healthcare professionals

- **Challenge**
  - There is no consistent treatment pathway for adults with severe to profound hearing loss
  - Low awareness of indications amongst professionals – ENT surgeons and audiologists
- **Evidence is building to support the establishment of a clinical pathway**
  - Good hearing is an essential part of healthy ageing
    - Cognition benefits
  - Effectiveness of cochlear implants relative to hearing aids
  - Quality of life improvements
  - Treating age related hearing loss is cost effective

# Good hearing is an essential part of healthy ageing



Increase penetration in adults & seniors

## Growing understanding of the link between healthy hearing and healthy ageing

**Cognitive decline**  
Hearing loss associated with accelerated cognitive decline and dementia in older adults<sup>1</sup>



**Social isolation**  
Hearing loss linked to withdrawal from social interactions, which can have a significant impact on psychological well-being and physical health<sup>5-6</sup>



**Depression**  
Significant association between hearing impairment and moderate to severe depression<sup>2-4</sup>



**Ability to work**  
Hearing loss can affect the ability to work or stay in the workforce<sup>7-9</sup>

**Falls**  
Higher risk of dizziness causing falling<sup>3</sup>



**Loss of independence**  
Seniors with hearing loss less likely to be able to self-care<sup>4</sup>



# Cognition benefits



Increase penetration in adults & seniors

In this study, >90% of recipients with mild cognitive impairment pre surgery, **stabilised or improved cognition\***

### Long-Term Cognitive Prognosis of Profoundly Deaf Older Adults After Hearing Rehabilitation Using Cochlear Implants

Isabelle Mosnier, MD,\*<sup>1</sup> Antoine Vanier, MD, PhD,<sup>1,2</sup> Damien Bonnard, MD, PhD,<sup>2</sup> Geneviève Lina-Granade, MD,<sup>3</sup> Eric Troy, MD, PhD,<sup>1,4,5</sup> Philippe Bordure, MD,<sup>1,7</sup> Benoît Godery, MD, PhD,<sup>1,2</sup> Mathieu Marsy, MD, PhD,<sup>1,2</sup> Emmanuel Lescanne, MD, PhD,<sup>2,8</sup> Frédéric Vensal, MD, PhD,<sup>1,2</sup> Christine Poncet, MD,<sup>1,9,10</sup> Olivier Sterkers, MD, PhD,<sup>1</sup> and Joël Belmin, MD<sup>1,7</sup>

**OBJECTIVES:** To analyze long-term cognitive status and function after cochlear implantation in profoundly deaf individuals.  
**DESIGN:** Prospective observational longitudinal study.  
**SETTING:** Ten academic medical centers referent for cochlear implantation.  
**PARTICIPANTS:** Individuals aged 65 and older who qualified for cochlear implantation (N=70).  
**MEASUREMENTS:** Cognitive tests were administered before cochlear implantation and 1 and 5-6 years post-implantation. Evaluation consisted of 6 tests assessing attention, memory, orientation, executive function, mental flexibility, and fluency. Cognitive status was determined as normal, mild cognitive impairment (MCI), or dementia. Speech perception in quiet and noisy conditions was assessed using disyllabic words, and quality of life was assessed using the Nijmegen Cochlear Implant Questionnaire.

**RESULTS:** Mean follow-up was 6.8 years (range 5.5-8.5 years). Speech perception scores and quality of life remained stable from 1 to 7 years after cochlear implantation. Of 31 participants (45%) with MCI before cochlear implantation, 2 (6%) developed dementia during follow-up, 19 (61%) remained stable, and 10 (32%) returned to normal cognition. None of the 38 with normal cognition developed dementia during follow-up, although 12 (32%) developed MCI.  
**CONCLUSION:** MCI is highly prevalent in older adults with profound hearing loss. Nevertheless, we observed a low rate of progression to dementia, and cognitive function improved in some individuals with MCI at baseline. These results highlight that cochlear implantation should be strongly considered in profoundly deaf individuals, even those with MCI, with a possible positive effect of hearing rehabilitation on neurocognitive functioning. J Am Geriatr Soc. 2018.

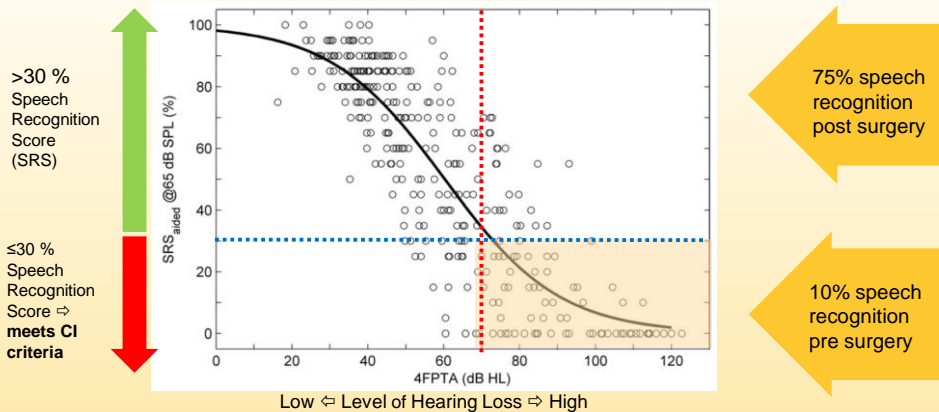
\* Mosnier et al, The American Geriatrics Society, 2018

# Effectiveness of cochlear implants relative to hearing aids



Increase penetration in adults & seniors

**65% point improvement in speech recognition with cochlear implants over hearing aids\***



\* Hoppe et al, "Long term Results of a Screening Procedure for Adult Cochlear Implant Candidates", Thieme 2016

# Quality of life improvements



Increase penetration in adults & seniors

**>10x improvement in satisfaction with hearing performance with cochlear implants over hearing aids\***

	<b>Bilateral Hearing Aids</b> (Appropriately fit HAs)		<b>Smart Bimodal</b> (Nucleus CI + Resound HA)
<b>HEARING PERFORMANCE</b> <i>Satisfied or Very Satisfied</i>	<b>9%</b>	→	<b>95%</b>
Ability to understand what is said on TV	<b>13%</b>	→	<b>76%</b>
Ability to understand conversations in a small group	<b>8%</b>	→	<b>79%</b>
Hearing performance in background noise	<b>2%</b>	→	<b>58%</b>
Ability to listen to and appreciate music	<b>13%</b>	→	<b>68%</b>
Ability to understand people on the phone	<b>6%</b>	→	<b>71%</b>

\* Clinical Evaluation of the Cochlear Nucleus CI532 Cochlear Implants in Adults. 2019 Jan; Data on file.

# Treating age related hearing loss is cost effective



Increase penetration in adults & seniors

- The cost effectiveness of cochlear implantation in children is well understood
- Recent research suggests CI is also highly cost effective in adults\*

ICER – incremental cost effectiveness ratio	CI vs. Hearing Aid £ per QALY	Cost effective?
Adults, 18+	11,988	✓
Adults, 65+	15,293	✓

\* The Cost Effectiveness of Cochlear Implants in UK Adults. Cutler H., et al. Presented at EFAS conference, May 2019

# Building consensus on the treatment pathway



Increase penetration in adults & seniors

- **Progress in establishing a consistent CI pathway:**
  - In March 19, a Steering Committee and Panel of 25 audiologists and ENT surgeons across 13 countries, chaired by Dr Craig Buchman, Washington University, reached a consensus that lays the foundations for the creation of universal clinical practice guidelines for cochlear implantation including patient identification, referral, implantation and rehabilitation
- **Next steps:**
  - Consensus statement publication in a high impact medical journal
  - Consensus paper starts to influence awareness and referral behaviour
  - Engagement of professionals and community in change
  - Development of in country treatment guidelines in collaboration with society/policy makers
  - Adoption of consensus recommendations into formal clinical practice guidelines
  - Supports market access efforts with payers and policy makers

# The goal is to build a clear and consistent referral path from hearing aids to cochlear implants



Increase penetration in adults & seniors

## Candidate

**Goal:** Motivated to treat hearing loss with the best available solution

**Initiatives:**  
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# Cochlear is investing operating cash flows to drive growth



Deliver consistent revenue and earnings growth

## Invest to grow

- Building awareness and access to our products requires multi-year investment in sales, marketing and R&D activities
- Through disciplined investment, we will aim to maintain the net profit margin

## Operational improvement

- Optimising cost of production strengthens our competitive position
- Using scale to generate efficiency gains to reinvest in market growth activities

## Strong financial position

- Strong cash flow generation funds growth
- We aim to maintain the strong balance sheet position and continue to target a dividend payout of around 70% of net profit

23

# Revenue growth drivers



Deliver consistent revenue and earnings growth

## Cochlear implants

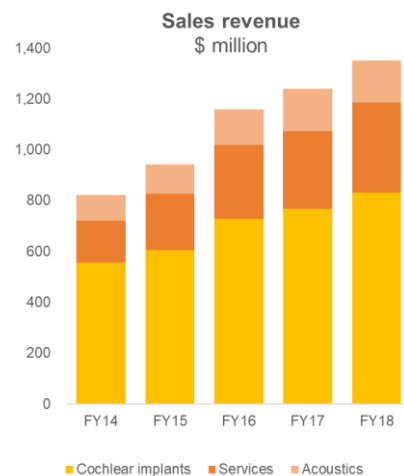
- Growing awareness and uptake by adults & seniors
- New products driving market growth and market share
- Emerging market expansion

## Services

- Growing recipient base
- Greater connectivity and engagement with recipients
- Nucleus® 7 Sound Processor and Nucleus Kanso® Sound Processor upgrades

## Acoustics

- Baha® 5, Power and SuperPower Sound Processor and Baha SoundArc
- Market expansion



24



Hear now. And always

## References



1. Livingston G, Sommerlad A, Orgeta V, Costafreda S, Huntley J, Mukadam N, et al. The Lancet Commissions: Dementia prevention, intervention, and care. *The Lancet* [serial on the Internet]. (2017, Dec 16), [cited July 2, 2018]; 3902673-2734.
2. Hsu W, Hsu C, Wen M, Lin H, Tsai H, Hsu Y, et al. Increased risk of depression in patients with acquired sensory hearing loss: A 12-year follow-up study. *Medicine* [serial on the Internet]. (2016, Nov), [cited July 3, 2018]; 95(44): e5312.
3. Stam M, Kostense P, Lemke U, Merkus P, Smit J, Kramer S, et al. Comorbidity in adults with hearing difficulties: which chronic medical conditions are related to hearing impairment? *International Journal Of Audiology* [serial on the Internet]. (2014, June), [cited July 3, 2018]; 53(6): 392-401.
4. Barnett S. A hearing problem. *American Family Physician* [serial on the Internet]. (2002, Sep 1), [cited July 3, 2018]; 66(5): 911.
5. Mick P, Kawachi I, Lin F. The Association between Hearing Loss and Social Isolation in Older Adults. *Otolaryngology And Head And Neck Surgery* [serial on the Internet]. (2014), [cited July 3, 2018]; (3): 378.
6. Tomaka J, Thompson S, Palacios R. The Relation of Social Isolation, Loneliness, and Social Support to Disease Outcomes Among the Elderly. *Journal Of Aging And Health* [serial on the Internet]. (2006), [cited July 3, 2018]; (3): 359.
7. Kramer S, Kapteyn T, Houtgast T. Occupational performance: comparing normally-hearing and hearing-impaired employees using the Amsterdam Checklist for Hearing and Work. *International Journal Of Audiology* [serial on the Internet]. (2006, Sep), [cited July 3, 2018]; 45(9): 503-512.
8. Nachtegaal J, Festen J, Kramer S. Hearing ability in working life and its relationship with sick leave and self-reported work productivity. *Ear And Hearing* [serial on the Internet]. (2012, Jan), [cited July 3, 2018]; 33(1): 94-103.
9. Nachtegaal J, Kuik D, Anema J, Goverts S, Festen J, Kramer S. Hearing status, need for recovery after work, and psychosocial work characteristics: Results from an internet-based national survey on hearing. *International Journal Of Audiology* [serial on the Internet]. (2009, Oct), [cited July 3, 2018]; 48(10): 684-691.



# Cochlear's innovation pipeline

Jan Janssen Chief Technology Officer  
 Cochlear Capital Markets Day – 10 May 2019

*Hear now. And always*

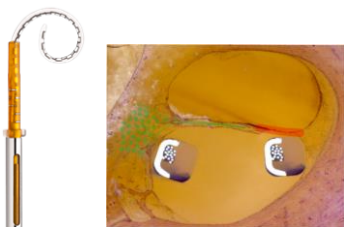


# Cochlear's benchmark cochlear implant portfolio



## Nucleus® Profile™ Plus Series cochlear implant (CI632)

Benchmark in size, implant reliability and neural interface



Slim Modiolar electrode



3.9 mm

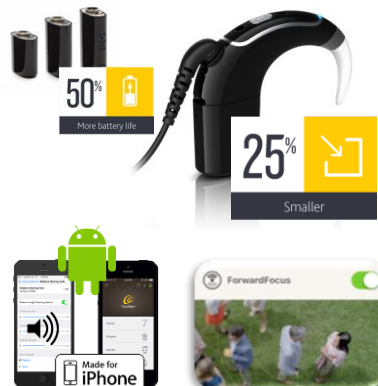
## Nucleus® Kanso® Sound Processor

Benchmark in OTE hearing performance & wireless connectivity



## Nucleus® 7 Sound Processor

Benchmark in BTE size, smartphone connectivity and hearing performance



# Future focus areas



### Hearing Outcomes

Year	Score
2012	10
2013	25
2014	55

### Lifestyle

### Hearing Indications

### Connected Care

# Future focus areas



### Hearing Outcomes

Year	Score
2012	10
2013	25
2014	55

### Lifestyle

# Hearing Experience

### Hearing Indications

### Connected Care



# Cochlear Nucleus implant history



1985	1997	2000	2005	2009 / 2014	2019 <b>NEW</b>
<b>CI22M</b> World's first commercial multi-channel cochlear implant.	<b>CI24M</b> World's first CI with removable magnet for MRI safety.	<b>CI24R</b> Released with perimodiolar and straight electrodes.	<b>CI24RE</b> World's most implanted cochlear implant.	<b>CI500 / Profile</b> Thinnest implant. Offers ease of use & faster surgery due to minimal drilling.	<b>CI600 / Profile Plus</b> Thinnest implant. MRI 1.5 and 3 T compatible with magnet in place.

- Since 1997, Cochlear Nucleus implant users have access to 1.5 T (with magnet removed) and 3 T (with magnet removed, excluding USA) with the CI24M and CI24R devices
- Since 2005, Cochlear Nucleus implant users have access to 1.5 T MRI (without magnet removed but with head bandage) and 3 T MRI (with magnet removed)
- Ability to remove the magnet is also important for specific situations

**Implant Model Number Legend:**  
 CI5xx: Profile implant  
 CI6xx: Profile Plus implant  
 CIx12: Contour Advance electrode  
 CIx22: Slim Straight electrode  
 CIx32: Slim Modiolar electrode  
 E.g: CI522, CI532 ⇒ CI622, CI632

## Cochlear™ Nucleus® Profile™ Plus Series Implant



Hear now. And always



# Cochlear™ Nucleus® Profile™ Plus Series implant

## Designed for simpler MRI

More convenient MRI scans at 1.5 and 3.0 Tesla without the need for magnet removal. No need to apply a bandage and splint for 1.5 and 3 T MRI scan

## Our dedication to implant reliability

Built on Cochlear's unrivalled reliability record of the Profile Series Implant<sup>1,2,3</sup>

## The thinnest cochlear implant platform

At only 3.9mm, it is the thinnest in the world<sup>4</sup>



1. Cochlear Limited. D1593476. Cochlear Nucleus Reliability Report, Volume 17 December 2018. 2019, Mar.  
 2. Hearing Implant Reliability Reporting | MED-EL [Internet]. Medel.com. 2019 [cited 7 March 2019]. Available from: <http://www.medel.com/hearing-solutions/cochlear-implants/reliability>  
 3. 2018 Global Implant Reliability Report. 027-N025-02 Rev B. Advanced Bionics AG and affiliates.; 2018.  
 4. Data on file

# Future focus areas



### Hearing Outcomes

Year	2013	2014
Word Score	~25	~45

### Lifestyle

### Hearing Indications

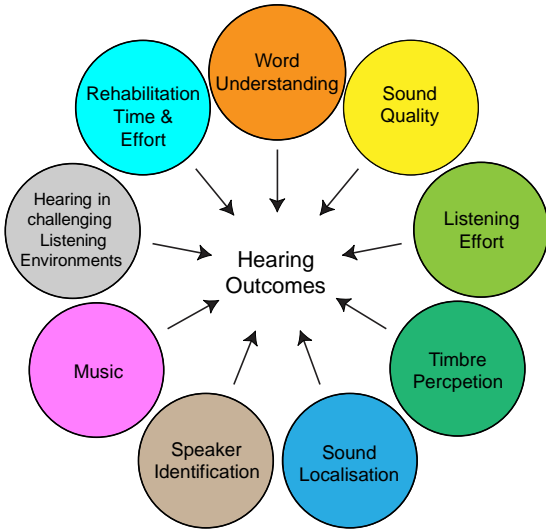
Frequency (Hz)	125	250	500	1000	2000	4000	8000
125	20	20	20	20	20	20	20
250	20	20	20	20	20	20	20
500	20	20	20	20	20	20	20
1000	20	20	20	20	20	20	20
2000	20	20	20	20	20	20	20
4000	20	20	20	20	20	20	20
8000	20	20	20	20	20	20	20

### Connected Care

```

    graph TD
        A[Build patient profile] --> B[Create care pathway]
        B --> C[Customize hearing services]
        C --> D[Build care plan]
    
```

# Closing the gap ... Hearing outcomes



# How to maximise hearing outcomes



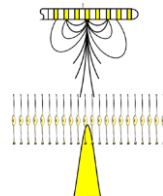
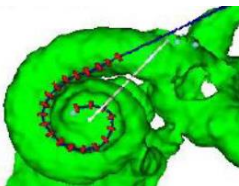
Closest to the hearing nerve



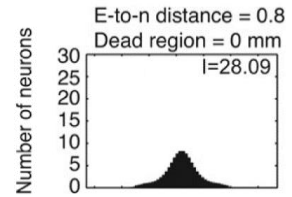
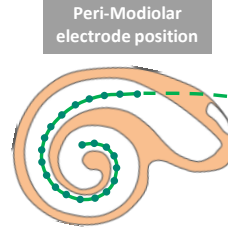
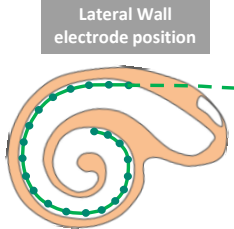
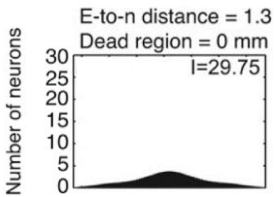
Minimise cochlear trauma



High number of independent channels

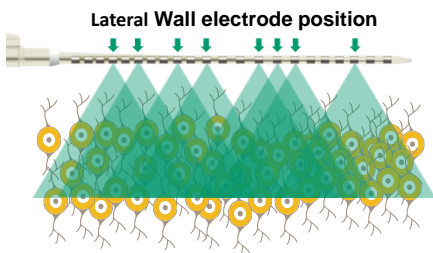


# Peri-modiolar electrodes deliver electrical stimulation closer to the hearing nerve

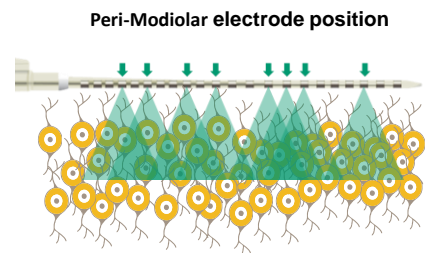


Spatial patterns of simulated neural excitation: 100 activated neurons

Spatial patterns of simulated neural excitation: 100 activated neurons



*"At close electrode-neuron distances, excitation patterns become more spatially localized...."\**



\*Goldwyn J et al. Modelling the electrode-neuron interface of cochlear implants: Effects of neural survival, electrode placement, and the partial tripolar configuration, Hearing Research 2010

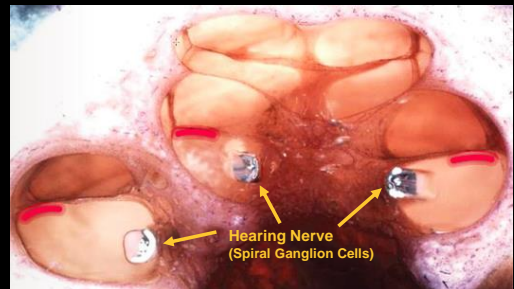
# Slim Modiolar (CI532) – Key features



- ✓ **CLOSE TO THE HEARING NERVE FOR OPTIMAL HEARING PERFORMANCE**
- ✓ **CONSISTENT AND COMPLETE SCALA TYMPANI PLACEMENT**
- ✓ **ATRAUMATIC DESIGN TO PROTECT & PRESERVE THE DELICATE INNER EAR**
- ✓ **SMOOTH AND EASY INSERTION VIA ROUND WINDOW OR COCHLEOSTOMY**
- ✓ **RELOADABLE**

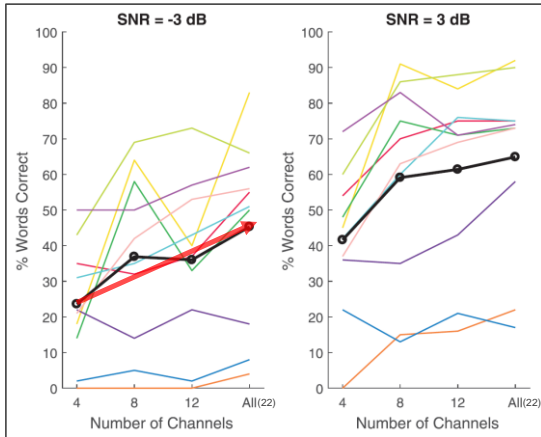


Courtesy Prof. Ramos – Las Palmas / Spain

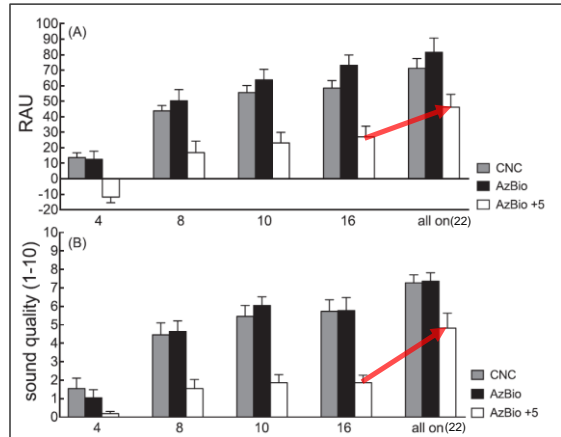


Courtesy A/Prof. Briggs – Hearing CRC / Melbourne

# Better hearing performance and sound quality with 22 electrodes



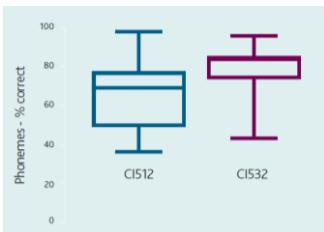
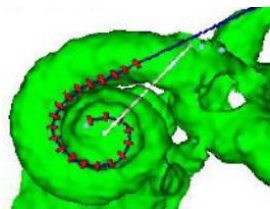
Coghran et al, JASA 2017(\*)



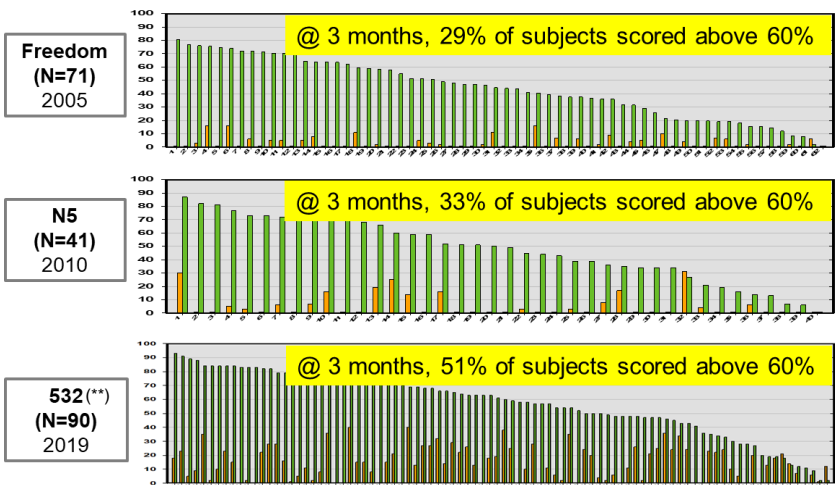
Berg et al, JASA 2019(\*\*)

\* Croghan et al., Re-examining the relationship b/w number of cochlear implant channels and maximal speech intelligibility, Journal of the Acoustic Society of America, December 2017  
 \*\* Berg & al. Speech recognition as a function of the number of channels in perimodiolar electrode recipients, Journal of the Acoustical Society of America, March 2019

# Hearing better faster with CI532 electrode & Nucleus 7 Sound Processor

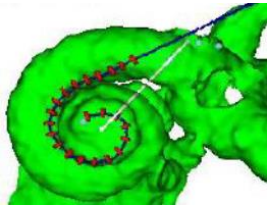


RVEEH study, 2018 (\*)



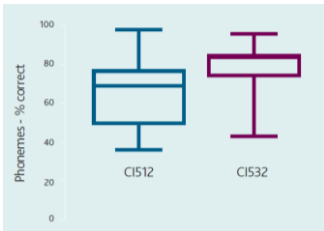
\*Shaul et al; Scalar localization of peri-modiolar electrodes and speech perception outcomes. Journal of Laryngology & Otology 2017  
 \*\*Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus@CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019

# Hearing better faster with CI532 electrode & Nucleus 7 Sound Processor



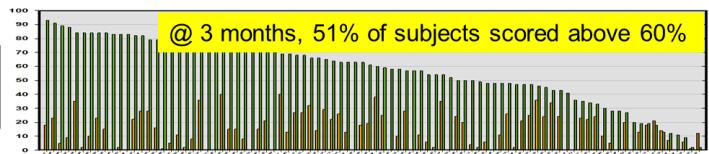
**At 3 months, more people are hearing better faster by combining earlier implantation with CI532 and Nucleus 7**

The thin form factor of the Slim Modiolar electrode facilitates atraumatic insertion and provides closer and more consistent peri-modiolar placement which leads to faster, better and more consistent outcomes as demonstrated in 2 clinical studies



RVEEH study, 2018 (\*)

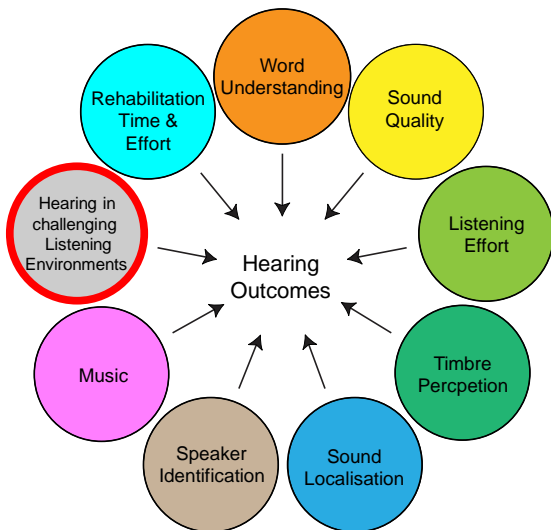
**532 (\*\*)**  
**(N=90)**  
**2019**



\*Shaul et al; Scalar localization of peri-modiolar electrodes and speech perception outcomes. Journal of Laryngology & Otology 2017

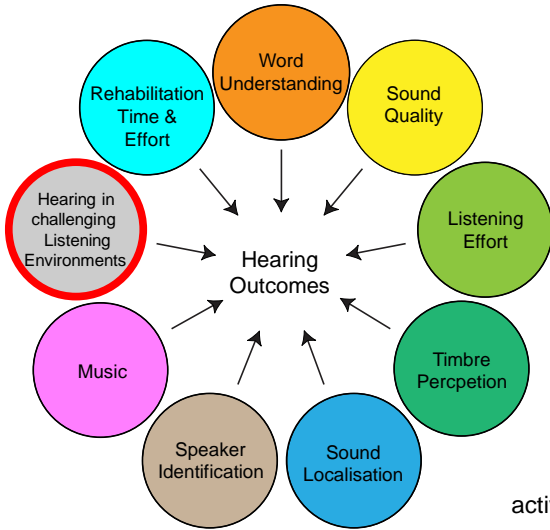
\*\*Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus@CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019

# Closing the gap ... Hearing in noise



Hearing in noisy environments is a bigger challenge for Cochlear Implant users compared to Normal Hearing listeners (on average 15 dB difference in Speech Reception Threshold)

# Closing the gap ... Hearing in noise

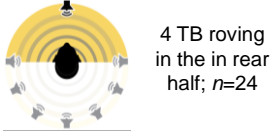


New **ForwardFocus** feature activated with Nucleus Smart App

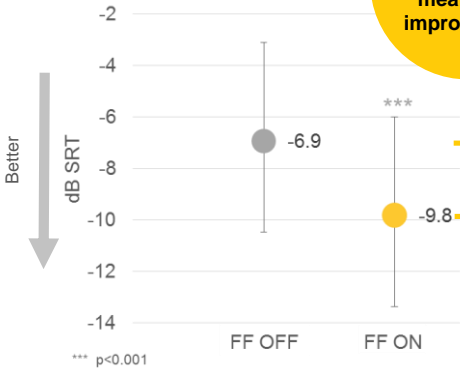
# NEW for Nucleus 7 Sound Processor: ForwardFocus - reduces noise from behind



# NEW for Nucleus 7 Sound Processor: ForwardFocus - reduces noise from behind



**2.9 dB**  
mean SRT  
improvement



**88%** recommended **ForwardFocus**  
in cafes and restaurants

**75%** satisfied with **ForwardFocus**  
for listening in noise

**52%** recommended **ForwardFocus**  
for use in the car

Cochlear Limited. D1376556 Acceptance and performance with the Nucleus 7 Cochlear Implant System with Adult Recipients. June 2018, Data on file.

# Nucleus 7 Sound Processor: Binaural Audio Streaming



**Nucleus<sup>®</sup> 7  
Sound Processor**



**Nucleus<sup>®</sup> 7  
Sound  
Processor**



**Linx 3D or  
Enzo 3D  
Hearing  
Aid**

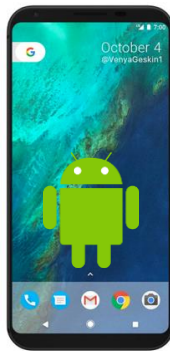




# Nucleus 7 Sound Processor: Binaural Audio Streaming



Nucleus<sup>®</sup> 7  
Sound Processor



Nucleus<sup>®</sup> 7  
Sound  
Processor



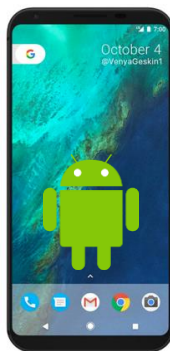
Linx 3D or  
Enzo 3D  
Hearing  
Aid



# Nucleus 7 Sound Processor: Binaural Audio Streaming



Nucleus<sup>®</sup> 7  
Sound Processor



Audio Streaming for  
Hearing Aids (ASHA)  
coming soon



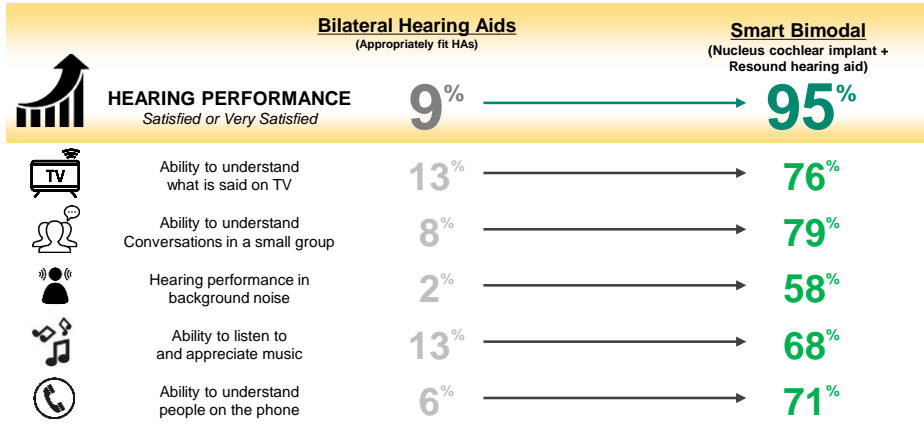
Nucleus<sup>®</sup> 7  
Sound  
Processor



Linx 3D or  
Enzo 3D  
Hearing  
Aid



# Hearing satisfaction with CI532 electrode and Nucleus 7 Sound Processor



**>10x improvement in hearing performance satisfaction with cochlear implants over hearing aids\***

\*Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019

# How to maximise hearing preservation



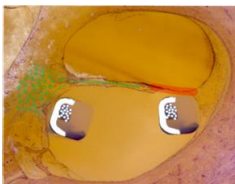
Atraumatic, thin electrode design



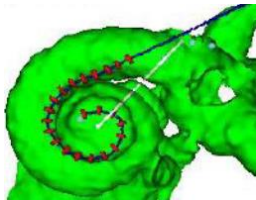
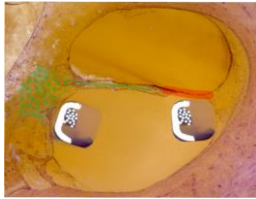
Enhanced Diagnostic & Surgical Tools



Drug/Device Combination Therapy



# Structural preservation with Slim Modiolar electrode (CI532)



- **Aschendorff et al (n=44)<sup>1</sup>**
  - No intracochlear trauma
  - 100% scala tympani placement
  - Consistent and close modiolar proximity
- **US Multicenter Study (n=100)<sup>2</sup>**
  - 24 Surgeons across 13 centers
  - 3D CT reconstructions completed
  - 91% of the electrode contacts in Scala Tympani
- **Shaul et al (n=18)<sup>3</sup>**
  - 100% scala tympani placement
- **Ramos et al (n=10)<sup>4</sup>**
  - 100% scala tympani placement

Multiple studies indicate consistent atraumatic placement with Slim Modiolar electrode (CI532)

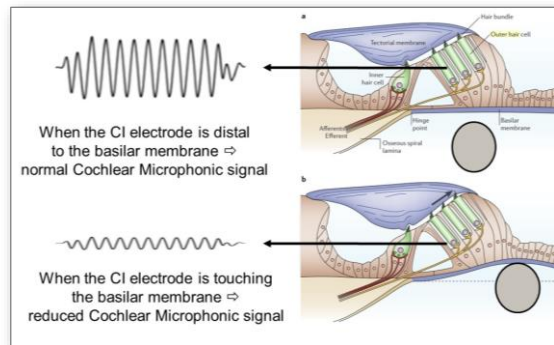
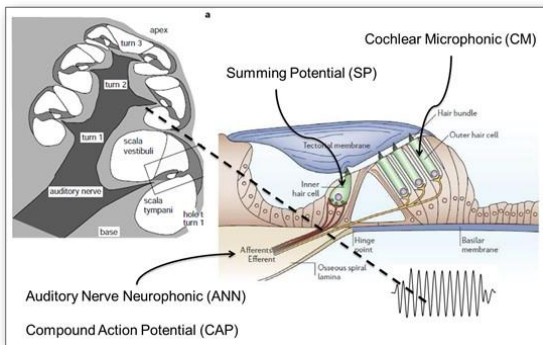
CI532 insertion in human cochlea



Video courtesy of Prof. J.T. Roland (NYU Langone Health)

1. Aschendorff et al. Clinical investigation of the Nucleus Slim Modiolar Electrode. *Audiology & Neurotology*. 2017  
 2. Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019  
 3. Shaul C, Dragovic AS, Stringer AK, O'Leary SJ, Briggs RJ. Scalar localization of peri-modiolar electrodes and speech perception outcomes. *J Laryngology & Otolology* 2018  
 4. Ramos-Macias et al. Hearing Preservation with the Slim Modiolar Electrode Nucleus CI532® Cochlear Implant: A Preliminary Experience. *Audiol Neurotol* 2017

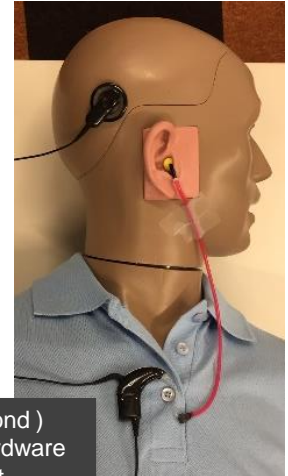
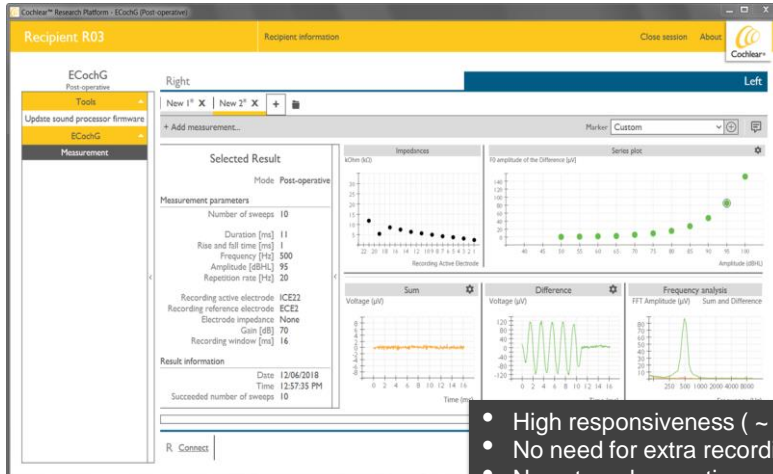
# ElectroCochleoGraphy (ECochG): “unblinding” the electrode insertion process



*ElectroCochleoGraphy (ECochG) is a measurement method that captures a number of electrical signals from the cochlea, including the cochlear microphonic (CM) which is the electrical response from the hair cells which follows the waveform of the acoustic sound input; it is as though the cochlea is acting as a microphone.*

*The cochlear microphonic (CM) signal may be impacted during or after electrode insertion if the electrode would touch the basilar membrane; hence the provide real-time feedback during the electrode insertion process.*

# NEW – Cochlear™ Research Platform ECochG “unblinding” the electrode insertion process



- High responsiveness (~ 3/second)
- No need for extra recording hardware
- No external acoustic equipment
- Easy to use, integrated system

Pending CE, FDA, TGA regulatory approval

## Future focus areas



Hearing Experience

### Hearing Outcomes

### Lifestyle

### Hearing Indications

### Connected Care

# Making life easy



## Nucleus 6 system



Nucleus Smart App



MiniMic 2 MiniMic 2+

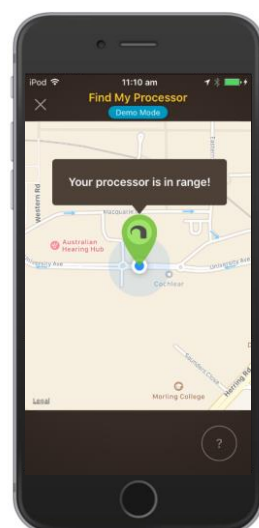


TV Streamer



## Nucleus 7 system

# Nucleus<sup>®</sup> Smart App



## First for iPhone. First for Android.



With the Nucleus Smart App patients can control their Nucleus 7 Sound Processor directly from a smartphone. iPhone – iPad – iPod Touch  
**Now also for Android.**



## Why develop a totally implantable cochlear implant (TICI)?



- Recipients and Professionals ask for it! Why?
- Quality of life – ability to hear 24/7 in all environments
  - Feeling safer:  
detect alarms & warnings in all environments
  - Freedom:  
to pursue life with fewer restrictions
  - Emotional benefit:  
feeling confident for oneself or loved ones
  - Aesthetic benefit:  
can be used without the external processor



## 1<sup>st</sup> generation TICI research device (2005-2006)



- Hearing performance in quiet and in noise significantly degraded when using invisible hearing
- Usability strongly affected by the presence of body noise (breathing, swallowing, eating, ...)
- Due to these issues the Melbourne recipients do not use the invisible hearing as the “standard” hearing mode,



However ...

- Today, all 3 recipients use the invisible hearing mode for part of the day in particular situations and activities
- None were prepared to give up the invisible hearing function:

*“I’m never deaf anymore”*

*“Freedom from deafness”*

Briggs et al (2005)

## 2<sup>nd</sup> generation TICI research device (2018)



- 2<sup>nd</sup> generation TICI investigational device leverages Carina<sup>®</sup> implantable microphone technology
- Feasibility clinical study with 11 subjects announced October 2018
- 5 subjects have been implanted
- The outcomes of this study will influence the next steps towards a commercial TICI
- While good progress is being made, the commercial availability of a TICI is likely years away

**Cochlear™ Carina<sup>®</sup>**  
Totally Implantable  
Middle Ear Implant

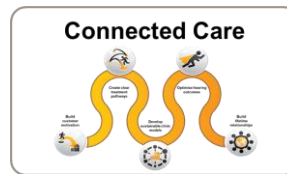


# Summary

## Product innovation focus areas



- Nucleus Profile Plus Series cochlear implant (CI600): enhanced MRI compatibility
- Hearing Outcomes
  - Slim Modiolar (CI532/632) + Nucleus 7 Sound Processor: hearing better faster
  - Nucleus 7 ForwardFocus: hearing better in noise
  - Nucleus 7 Audio Streaming: ASHA compatibility (coming soon)
  - New Cochlear Research Platform ECochG capability: hearing preservation
- Lifestyle
  - Nucleus Smart App Android
  - TICI clinical study update
- Connected Care
  - Remote Check: in pilot roll-out stage



*Hear now. And always*





## Connected Care – Remote Check Pilot - UK

Craig Sharp Group Product Manager, Connected Care  
Cochlear Capital Markets Day – 10 May 2019

*Hear now. And always*



## Remote Check Overview



### About Remote Check

Remote Check\* is designed to be a convenient, at-home testing tool that allows patients with a Cochlear™ Nucleus® 7 Sound Processor to complete a series of hearing tests at home using their mobile device. A clinician can then review those results and determine whether or not the patient needs to come into the clinic for an in-person visit.

#### With Remote Check, hearing health professionals can:

- Reduce unnecessary visits for patients who are on track
- Spend more quality time with patients who have complex needs
- See more patients who are waiting for an initial candidacy assessment
- Reduce the burden on patients by offering a convenient, time-saving option of care



*\*Disclaimer: Remote Check is not TGA approved and is not currently available for use in Australia.*

# How It Works

## Remote Check patient activities



Implant site photos



Questionnaire: part 1



Audiogram

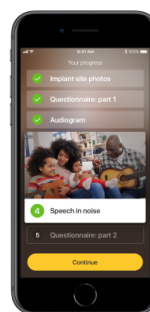


Speech in noise



Questionnaire: part 2

Remote Check activities are designed to take as little as 15 minutes for patients to complete, and about 10 minutes for a health care professional to assess.\*



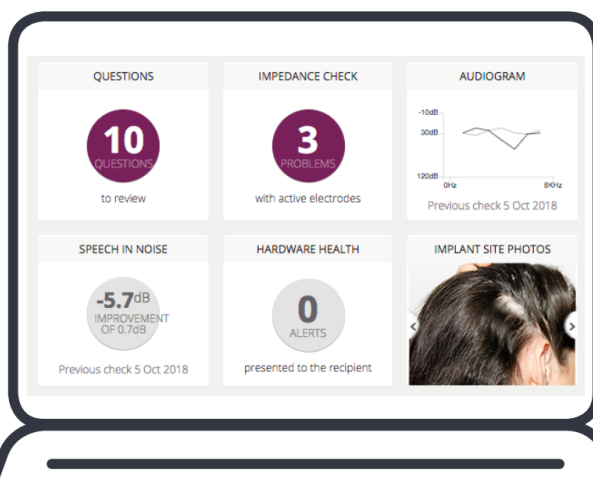
\*Based on internal Cochlear data. Some users may take longer than 15 minutes and 10 minutes, respectively. Data on file.

# How It Works

## Professional assessment via myCochlear.com

Patient results are available via myCochlear.com, where a snapshot of the patients' hearing health is presented in an easy-to-read dashboard.

With test results securely available on the web, professionals can quickly determine whether each patient is progressing well or needs an in-clinic visit for further assessment.



# UK Pilot Study – Remote Check



- **NHS operates on a capitated funding model**
  - Fixed price for annual maintenance of patients after initial cochlear implant surgery
  - Fee is static regardless of number of visits
- **UK recently expanded eligibility criteria for cochlear implants**
  - New NICE criteria doubles the total addressable market
  - Additional strain will be placed on clinics
- **Remote Check can help relieve capacity constraints**
  - Help eliminate unnecessary visits
  - Utilise clinic time for patients who need it most
- **Pilot study measuring efficacy and efficiency of Remote Check**

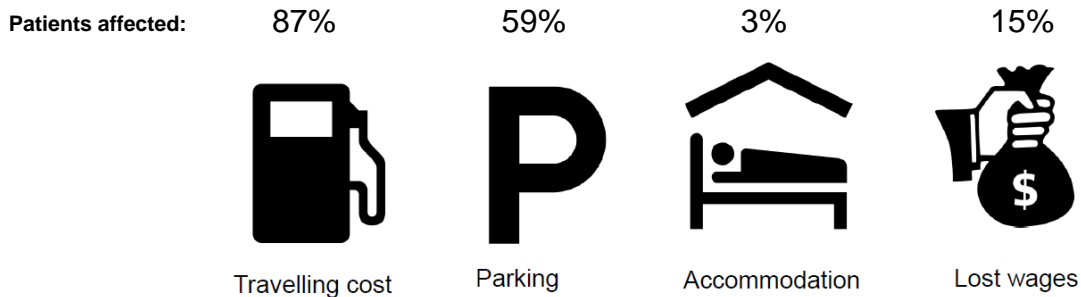


5 Pilot Sites in the UK

# Potential Patient Impact of a New Care Model

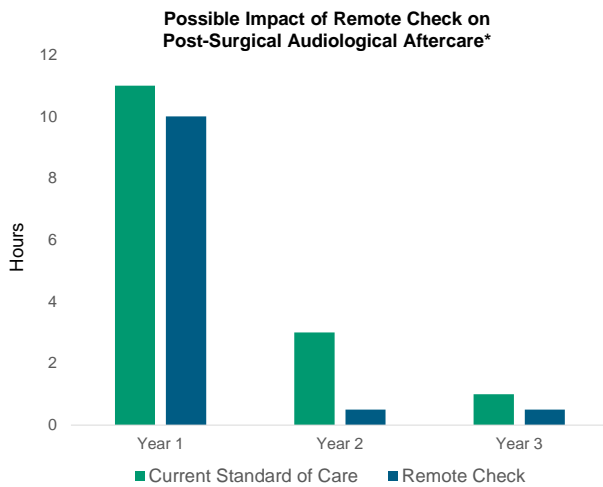


## What is the real cost of an appointment?



Results based on a market research study conducted by Cochlear Ltd (n= 126). Data on file.

# Potential Clinic Impact of a New Care Model



- **Facilitates category growth**
  - Helps mitigate impact of new CI candidates on clinic capacity
  - Extends reach of existing care providers
- **Helps with follow-up care compliance**
  - Many patients no-show for follow-up visits
  - A more convenient alternative to facilitate continuity of care

*\*Remote Check is not suitable for all patients. Data is based on internal Cochlear studies and presented here for illustrative purposes only.*



Cochlear®

Hear now. And always



## Building a market access capability

Fernando Gonzalo Head of Global Market Access and Health Economics  
Cochlear Capital Markets Day – 10 May 2019

*Hear now. And always*



## Topics

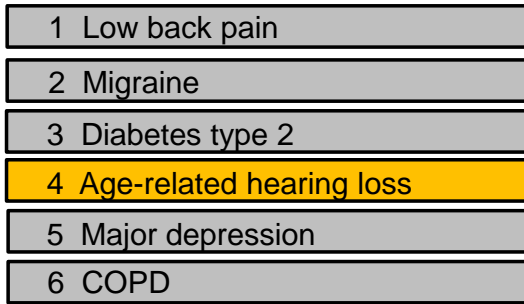


- The impact of untreated hearing loss
- Market Access at Cochlear
- Building the capabilities
- Recent access outcomes and future opportunities

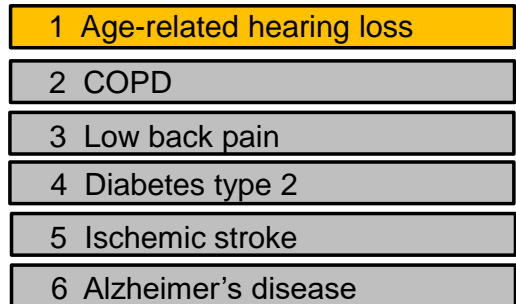
# Despite its low awareness, hearing loss is now the fourth largest cause of disability



**Years lived with disability**  
Global rank (2017)  
All ages



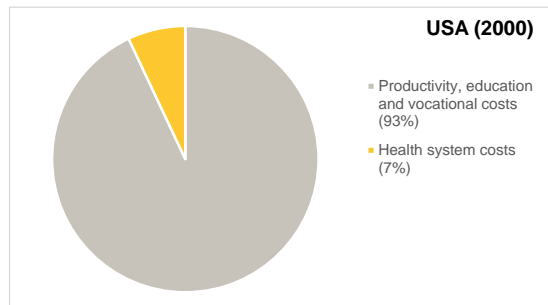
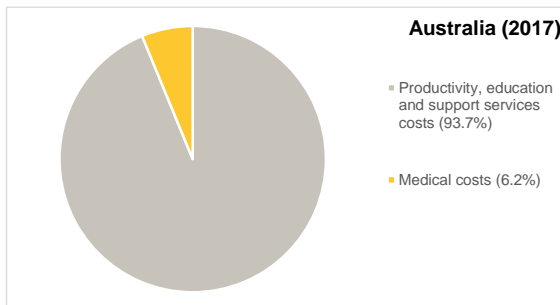
**Years lived with disability**  
Global rank (2017)  
Age 70+



# The total cost of untreated hearing loss usually goes unnoticed by health care systems



- WHO estimated the total global annual cost of untreated disabling hearing loss to be \$750 to \$790 billion (in 2015)
- Direct medical costs account for only a small fraction of the cost of hearing loss



# The impact on SP SNHL on the individual is real and often tragic



1980s – 1990s: Trying to live “normally” knowing that things are only getting harder

Progressive hearing loss continues



Late 1970s: Progressive hearing loss as a result of ototoxic drugs



2001: 80dB loss in her best ear

2002: Lost her job due to “inability to perform her duties” (aged 54)

2003 – 2018: “Stuck” in the hearing aid channel, despite a 90dB+ HL in both ears and no clear benefit from HA use

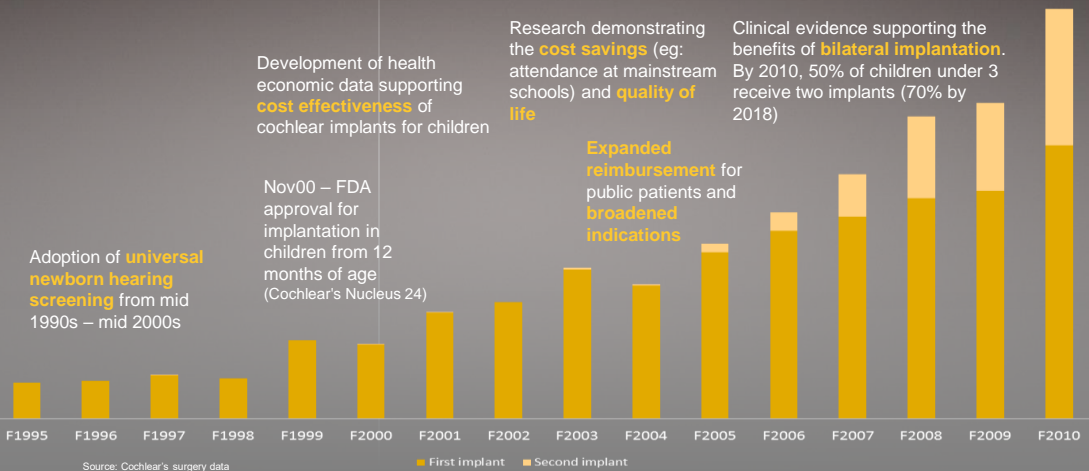
2019: On a “waiting list” for a Cochlear implant

# Improved market access is an important driver of demand for cochlear implants



## The journey to CI becoming the standard of care for newborns

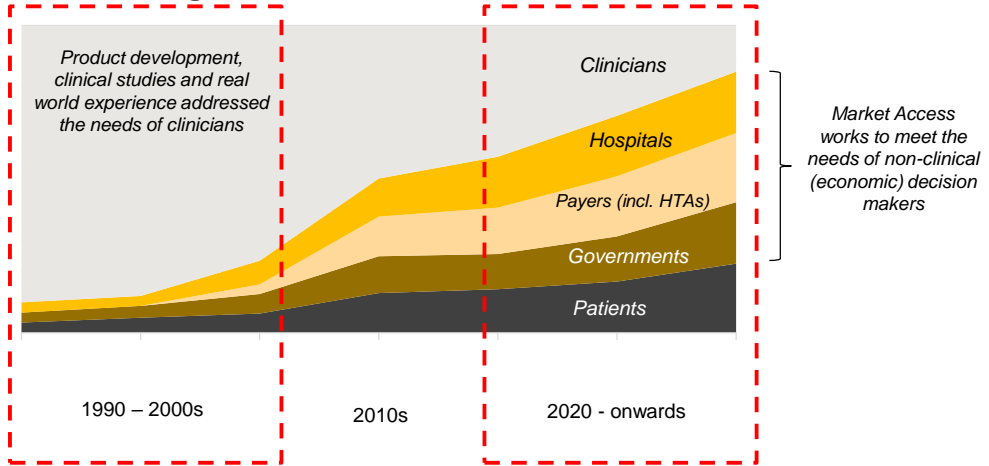
US surgeries for children under 3



# Market Access addresses the needs of non-clinical decision makers



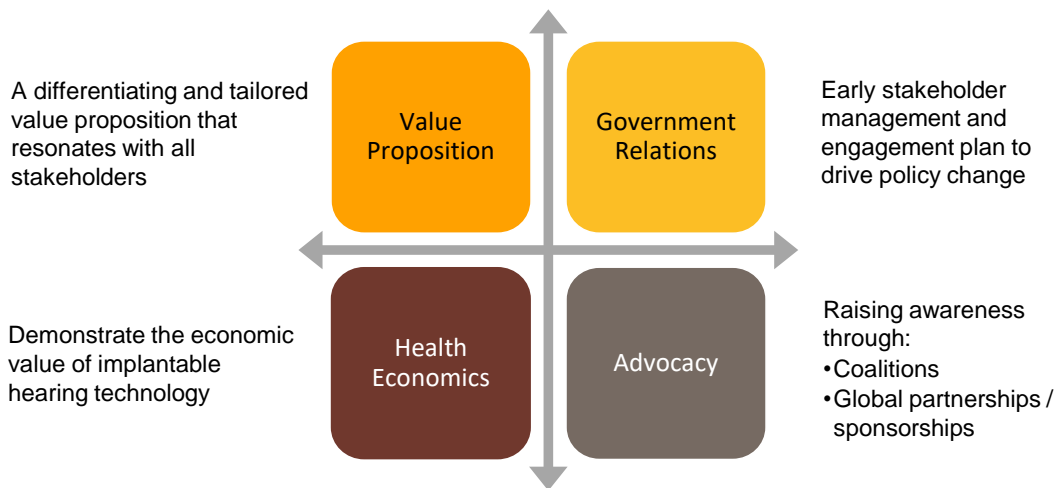
## Change in healthcare decision makers



Data is illustrative

7

# Successful market access requires a multifaceted approach



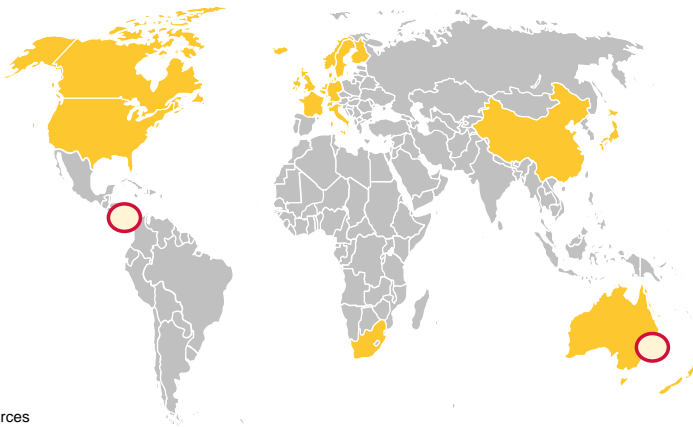
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# Access capabilities are needed at global, regional and country level



**Global Market Access** builds evidence to demonstrate the 'value for money' of CI and increases awareness among payers and policy makers of the impact of untreated hearing loss



**Local country market access teams are experts on local reimbursement process** and utilize the frameworks and tools provided by the global team to secure reimbursement and expand access where possible

- Local Market Access resources
- Region / Global Market Access resources

# Winning value propositions address payers' needs



**The non-clinical decision maker values (and will pay for):**

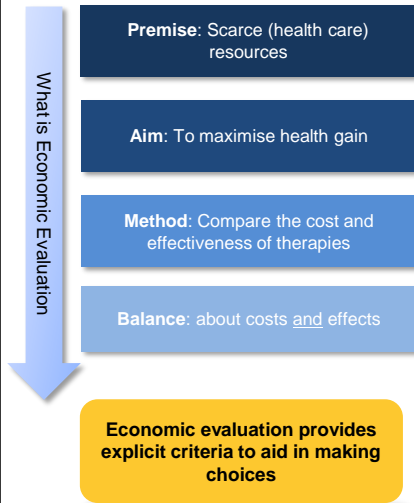


- Improved patient outcomes
- Improved healthcare efficiency
- Reduced societal cost



	Improved Patient Outcomes	Improved Healthcare Efficiency	Reduced Societal Cost
Rationale	<ul style="list-style-type: none"> <li>• Payers invest in proven technologies that deliver superior patient outcomes</li> <li>• <u>'Value for Money'</u></li> </ul>	<ul style="list-style-type: none"> <li>• Limited healthcare budget, ageing population and increased demand on finite healthcare resources makes <u>operational efficiency highly valuable</u></li> </ul>	<ul style="list-style-type: none"> <li>• Recognise clinical and economic <u>benefits to broader society</u> (not just medical sector)</li> <li>• Consider cost offsets over treatment lifespan</li> </ul>

# Economic models allow for comparison of different interventions



- “Health” is measured in utilities (0 = death; 1 = perfect health)
- 1 QALY = 1 quality adjusted life year = 1 year of life lived in perfect health

# Relative to other medical technologies, cochlear implants are cost effective

- The cost effectiveness of cochlear implantation in children has long been proven (incremental cost effectiveness ratio (ICER) ranging from \$8,000 - \$16,000 per QALY)
- In adults, recent research also suggest highly cost effective ICERs (between £10,000 and £15,000 per QALY<sup>1</sup>), well below the NICE accepted threshold of £20,000/QALY

ICER	CI vs. Hearing Aid £ per QALY	Cost effective?
Adults, 18+	11,988	✓
Adults, 65+	15,293	✓

Source: The Cost Effectiveness of Cochlear Implants in UK Adults. Cutler H., et al. Presented at EFAS conference, May 2019

# Advocacy activities will continue to be key to ensuring access



## Advocacy goal is aligned to Cochlear's Mission

*"Help people hear and be heard"*

Partnerships with patient and professional advocacy organisations, universities, NGO's, well regarded influencers.

- **Awareness** of CI and hearing loss as a major public health problem
- **Align messages with partners** and communicate need to improve access to implantable hearing technology
  - Screening and early intervention
  - Referral pathways
  - Awareness of HL link to health ageing



# Recent improvements in market access



Country	Year	Change in reimbursement	Higher CI growth rate since change
Japan	2017 - 2018	90dB → 70dB BCI funded	✓
Taiwan	2018	Adult CI funding approved (50 units)	✓
UK	March 2019	90dB → 80dB	

UK changes driven by:

- Strong advocacy support
- Disparity in reimbursement criteria compared to other EU countries
- Payer belief in the cost effectiveness of CI as an intervention
- Proven efficacy of CI in the severe sub-segment



## Future access opportunities: success will rely on payers' understanding the overall impact of hearing loss



### Opportunity



Broadening of reimbursement indications



Increase funding / reduction of waiting lists



Emerging markets



Leverage

- Connected care
- Standard of Care for adults



Acoustics

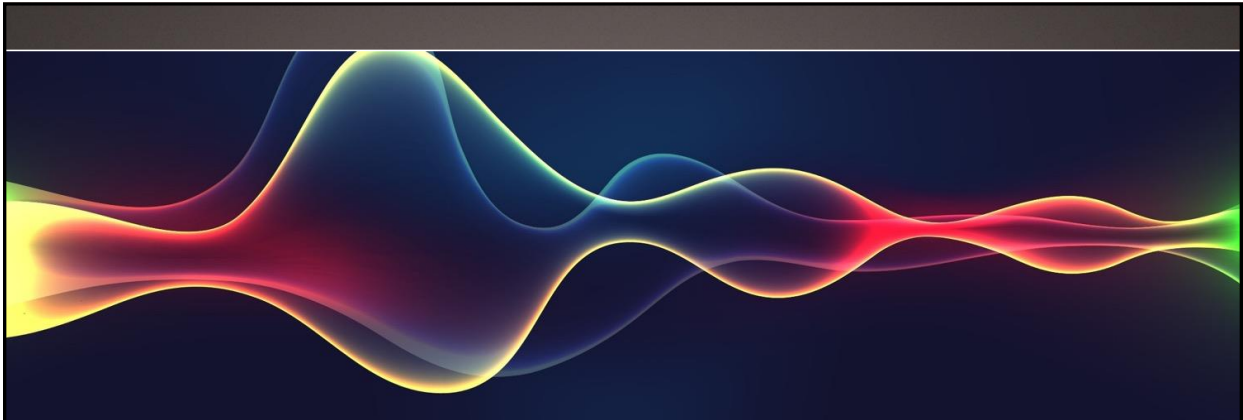
15

## References



1. Institute for Health Metrics and Evaluation (IHME). Findings from the Global Burden of Disease Study 2017
2. WHO (2017). Global costs of unaddressed hearing loss and cost-effectiveness of interventions: a WHO report, 2017. Geneva: World Health Organization
3. Mohr et al., (2000). The societal costs of severe to profound hearing loss in the United States. *Int J Technol Assess Health Care*. 16(4):1120–1135
4. Deloitte Access Economics (2017). The social and economic cost of hearing loss in Australia
5. Economic Tools Adapted from Riedel R et al. 2013. International standards for health economic evaluation with a focus on the German approach. *Journal of clinical pharmacy and therapeutics* 38: 277-285.
6. Pindrop Foundation. Economics of Cochlear Implantation. Available on: <https://www.pindrop.org.nz/articles/economics-of-cochlear-implantation>;
7. The Cost effectiveness of Cochlear Implant in the UK adults. Cutler H., et al. EFAS May 2019 conference

16



## Strengthening links to the hearing aid channel Increasing access and awareness

Michele Fusco VP, Strategic Growth Channels, Cochlear Americas  
Cochlear Capital Markets Day – 10 May 2019

*Hear now. And always*

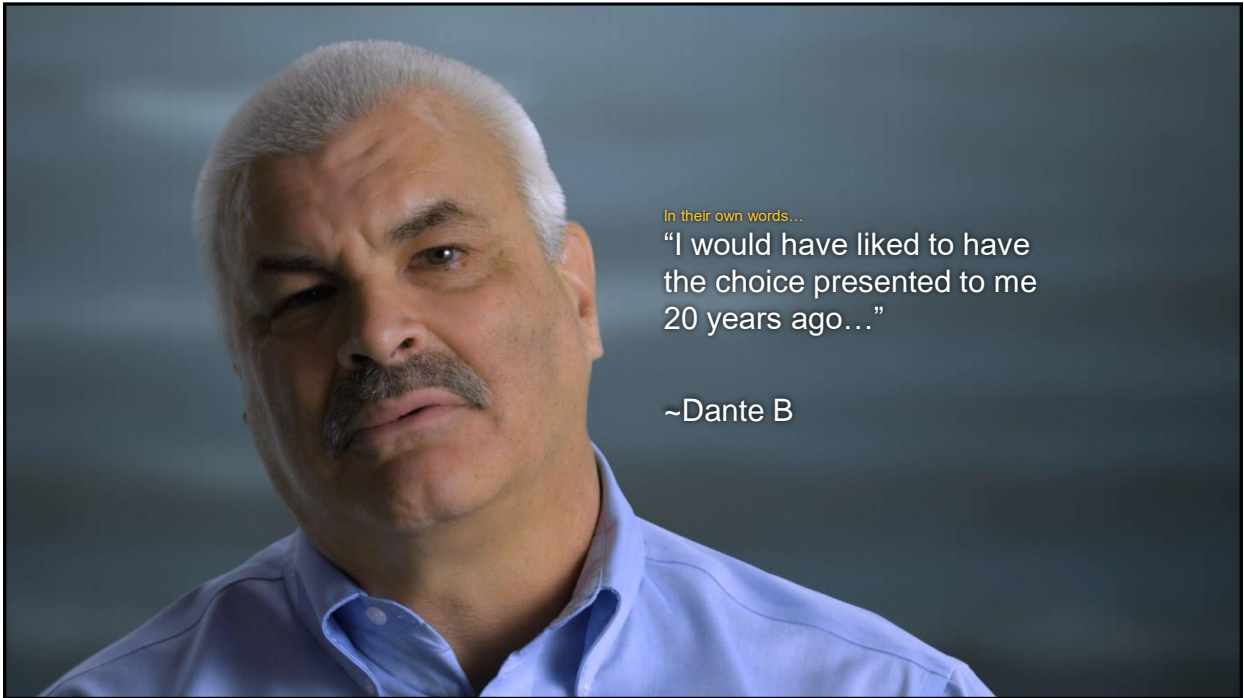


## Dante: Introduction



- Longstanding hearing loss since childhood
- Using high-powered hearing aids
- Daughter is getting married and he is afraid he won't hear the music at her wedding





In their own words...

“I would have liked to have the choice presented to me 20 years ago...”

~Dante B



## Top reasons audiologists do not recommend hearing implants



- I don't think patient's hearing loss is severe enough for an implant
- My patients are generally satisfied with hearing aids
- I don't have enough formal training and experience to feel comfortable recommending or offering implants



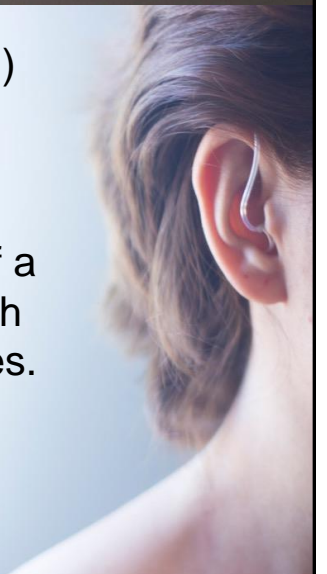
PSB Market Research, 2017 data on file

## Cochlear Provider Network



**CPN**

The Cochlear Provider Network (CPN) enables independent dispensing audiology/audiology-ENT practices to expand their services to include cochlear implants and become part of a medical network that helps people with hearing loss achieve optimal outcomes.



## CPN audiologist profile



- ✓ Open to revenue streams other than hearing aids
- ✓ Desires to be known as the community hearing health care expert
- ✓ Wants to offer all hearing solutions other than just hearing aids
- ✓ Practice has been established for at least five years
- ✓ Patients want audiologist to be involved in their care throughout their hearing journey
- ✓ Is a licensed audiologist
- ✓ Bills for services and is a Medicare provider
- ✓ Has a strong physician referral base and is comfortable partnering with physicians

## Why audiologists want to be CPNs



- Positions clinic as “multi-specialty”
- Differentiate practice from competitors
- Creates an alternative revenue source
- Partner with community surgeons
- Retain existing patients
- Attract new patients
- Recruits medical model audiologists to the practice
- Create marketing and PR opportunities – increase awareness

Partnerships



PR-TV Spot



TUCSON MORNING BLEND

**AZ Hearing Specialists: Is a cochlear implant right for you?**

3:34 PM, Mar 28, 2019



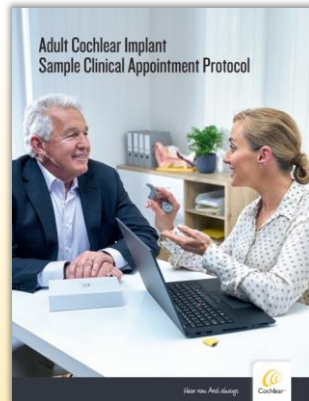
Medical Model vs. Retail



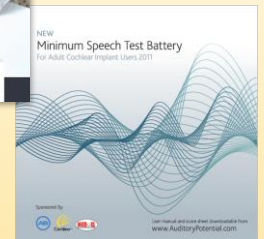
## CPN education and business training



- 2 Day training workshops
- Monthly webinars that include relevant topics (i.e. How to include CIs on your website, billing and reimbursement, etc...)
- Toolkit to get started—outlined protocols-easier candidacy identification
- Outlined billing practices
- Offer widest product portfolio
- Teaches ReSound/CI fitting procedures
- Join a network of progressive audiologists that offer all solutions



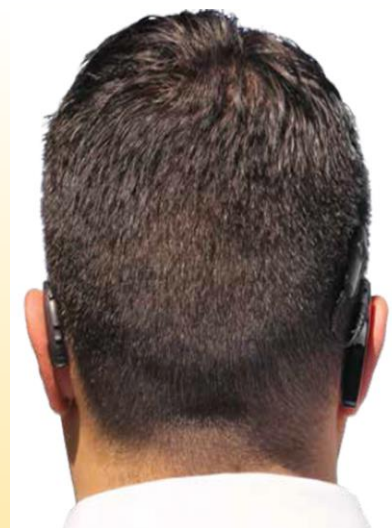
Training tools



## CPNs understand the value of hearing with two ears



- Recipients with residual hearing in the opposite ear will often continue to use a hearing aid with their cochlear implant
- Cochlear's partnership with ReSound offers a comprehensive portfolio of Smart Bimodal Solutions to best meet patient needs
  - Recipients can take advantage of Made for iPhone technology and True Wireless™ accessories in both ears
  - Centralized customer support for bimodal recipients



# Benefits of bimodal hearing



Cochlear implant system provides clarity <sup>1</sup>

Your brain combines the information from both ears, so that you have a clearer, richer and more natural hearing experience <sup>2</sup>

Hearing aid amplifies sound to provide balance <sup>1</sup>

## Potential benefits:

- Better hearing performance in background noise<sup>1</sup>
- Music appreciation<sup>3</sup>

1 - Ching T, van Wanrooy E, Dillon H. Binaural-bimodal fitting or bilateral implantation for managing severe to profound deafness: a review. *Trends Amplif.* 2007;11:161-192.

2 - Potts LG, Skinner MW, Litovsky RA, Strube MJ, Kuk F. Recognition and localization of speech by adult cochlear implant recipients wearing a digital hearing aid in the nonimplanted ear. *Journal of the American Academy of Audiology*/Volume 20, Number 6, 2009.

3-Potts LG, Skinner MW, Litovsky RA, Strube MJ, Kuk F. Recognition and localization of speech by adult cochlear implant recipients wearing a digital hearing aid in the nonimplanted ear. *Journal of the American Academy of Audiology*/Volume 20, Number 6, 2009

# Quality of life improvements

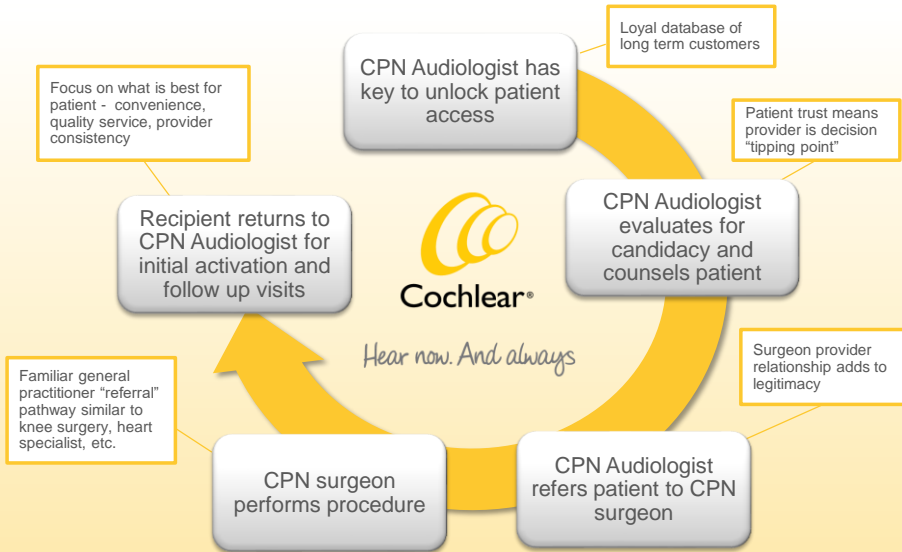


>10x improvement in satisfaction

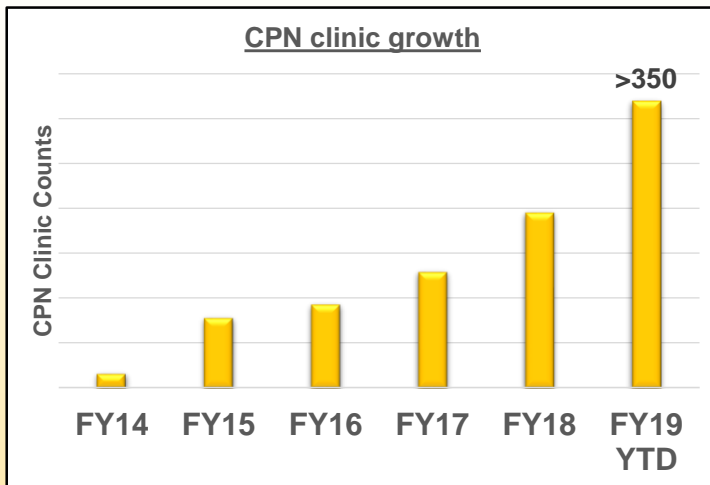
	Bilateral Hearing Aids (Appropriately fit HAs)	Smart Bimodal (Nucleus 7 SP + ReSound HA)
<b>HEARING PERFORMANCE</b> <sup>1</sup> <i>Satisfied or Very Satisfied</i>	9%	95%
Ability to understand what is said on TV	13%	76%
Ability to understand Conversations in a small group	8%	79%
Hearing performance in background noise	2%	58%
Ability to listen to and appreciate music	13%	68%
Ability to understand people on the phone	6%	71%

1. Clinical Evaluation of the Cochlear Nucleus CI532 Cochlear Implants in Adults. 2019 Jan; Data on file.

# How the CPN works



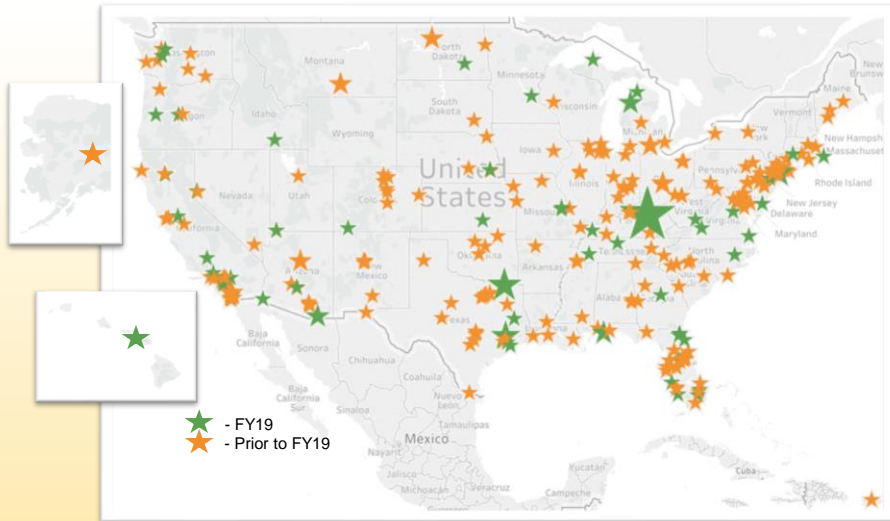
# The CPN has been growing strongly



>125 Active CPN surgeons and >350 CPN clinics

CPN surgeons grow 2x the rate of non-CPN surgeons

# Cochlear Provider Network today



\*Star size indicates CPN location density

# Sycle – Helps identify and educate



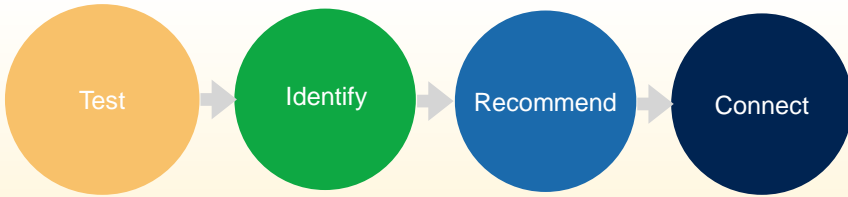
The Continuum of Care through Sycle software aims to build awareness, support patient education, and facilitates efficient referrals for patients who can benefit from cochlear implants.



CONTINUUM OF CARE - PROGRAM OVERVIEW

**SYCLE SUPPORTS HEARING HEALTHCARE PROFESSIONALS IN PROVIDING CARE THAT MAXIMIZES A PATIENT'S HEARING EXPERIENCE.**

# Cycle software uses current practice workflow to educate



Flags potential candidates

AutoFill Referral Form

Creates a Physician Report for the CI surgeon

Embedded Educational Tools

# Dedicated microsite contains further educational instruction



# Sycle portals provide professional awareness campaigns & industry KOL interviews



Case studies, myth-busters, educational webinars and patient counseling guides empower audiologists to feel confident in their decisions to refer patients for treatment

**Expanding your services to meet the growing needs of patients**

Dr. Joanne Davis is a Board Certified Doctor of Audiology and the owner of Davis Family Hearing, a multiple location practice in the heart of Florida. She regularly recommends Cochlear implants for appropriate patients and explains her Cochlear Implant Journey from hesitation to an enthusiastic recommendation.

**Background:** Dr. Davis has been practicing for over 20 years. She has a strong background in hearing aids and cochlear implants. She has a passion for helping patients and is always looking for ways to expand her services to meet the growing needs of her patients.

**What made you change your mind?** I was hesitant at first, but I realized that I was not providing the best care for my patients. I wanted to offer them the most advanced technology available, and Cochlear implants were the only option that could truly help them hear again.

**How do you build a practice with cochlear implants?** I focus on patient education and counseling. I make sure my patients understand the benefits of cochlear implants and how they can improve their quality of life. I also offer support and resources to help them through the process.

**How do you get your patients with cochlear implants?** I use a variety of marketing strategies, including social media, direct mail, and referrals from other healthcare providers. I also offer free consultations to attract new patients.

**THE CONTINUUM OF CARE: DEBUNKING 5 COCHLEAR IMPLANT MYTHS**

Dear Peter,

We are excited to announce our upcoming November webinar to focus upon 5 important topics. The Department of Care, Debunking 5 Cochlear Implant Myths, with Guest Co-Moderator, Brian Taylor, AuD.

**November 14, 2018**  
8:00am ET - 12:00pm ET

It is estimated that over 20,000 requests translated over one million (over 1M) in 2014. We continue to expand our offerings and continuously refine the audiologic continuum.

In this 60-minute webinar, Brian Taylor will discuss 5 myths surrounding cochlear implant technology and how they impact the hearing aid and audiologic continuum. You will learn the benefits that additional hearing aid audiologic experiences by expanding their services offering and partnering with CI surgery centers.

- 1. Cochlear implants are a cure for hearing loss.
- 2. Cochlear implants are only for the elderly.
- 3. Cochlear implants are only for the deaf.
- 4. Cochlear implants are only for the hearing impaired.
- 5. Cochlear implants are only for the hearing impaired.

And there's just one more thing. This isn't about to be a lecture. Space is limited so register today. We look forward to your attendance.

[Register Now](#)

Thank you,  
Tom Taylor

**AUDIOLOGYONLINE**

**The Value of Counseling Cochlear Implant Candidates & Referring To Specialists**

Shelley Burga, AuD, CCC-A

**Interview with Dr. Shelley Burga of New York City Hearing Associates to Discuss Cochlear Implants (CI) and How Supporting CI has Impacted her practice and patients lives.**

**AudiologyOnline: When did you first become familiar with cochlear implants and cochlear implant candidacy?**

Dr. Shelley Burga: I had been aware of implants for some time but only in the hearing setting. I wasn't aware that we could work with them outside the hearing aid and hearing aid practice. When I heard about this opportunity to meet, diagnose and fit with implants, I wanted to get involved. I realized that there are hearing issues that require more than a hearing aid and not knowing about cochlear implant treatment is a disservice to our patients.

**You need to build a relationship with a doctor, someone who you will trust to do the surgery. Once you are able to find someone to work with, with the help of Cochlear, we were able to form that relationship and find our patients better, which is helpful for the patient and us as their provider.**

**AudiologyOnline: What were some of the misconceptions you held before learning about CI and how to educate your patients?**

Dr. Shelley Burga: CIs were thought to be the last resort if the patient wasn't doing well with different technology and hearing aids. That was the only time we'd have the CI discussion and when we had that, if the hearing aids are working only not great, and if the patient couldn't

## In Summary.....



The CPN, together with Sycle, are driving a growing number of CI candidates from the hearing aid channel

- The majority of CI candidates are in the hearing aid channel
- The CPN demonstrates that building competencies in CI drives referrals
- The experience of CPNs has been overwhelmingly positive in driving:
  - > New revenue sources
  - > Attracting new patients
  - > Allowing audiologists to offer all solutions thus competing with Big Box, DTC and OTC
- Growing the CPN is accomplishing 2 important goals for the CI industry:
  - > Awareness
  - > Access



# Notes



## **Forward looking statements**

Cochlear advises that these presentation slides contain forward looking statements which may be subject to significant uncertainties outside of Cochlear's control. No representation is made as to the accuracy or reliability of forward looking statements or the assumptions on which they are based. Actual future events may vary from these forward looking statements and you are cautioned not to place undue reliance on any forward looking statement.

## **Non-IFRS financial measures**

Given the significance of foreign exchange movements, the directors believe the presentation of the non-IFRS financial measure, constant currency, is useful for the users of this document as it reflects the underlying financial performance of the business. This non-IFRS financial measure has not been subject to review or audit. However, KPMG has separately undertaken a set of procedures to agree the non-IFRS financial measures disclosed to the books and records of the group.

## **Constant currency**

Constant currency removes the impact of exchange rate movements to facilitate comparability of operational performance for Cochlear. This is done by converting the prior comparable period net profit of entities in the group that use currencies other than Australian dollars at the rates that were applicable to the current period (translation currency effect) and by adjusting for current year foreign currency gains and losses (foreign currency effect). The sum of translation currency effect and foreign currency effect is the amount by which reported EBIT and net profit is adjusted to calculate the result at constant currency.

## **Disclaimer**

Please note that products referenced in this presentation may not be approved or may be subject to restrictions in some regions. Any description of device usage is provided for the purpose of sharing scientific knowledge and is not a recommendation or promotion of unapproved product, off-label use or indication of product. Cochlear does not endorse any particular treatment protocol.

## **Legal disclaimer**

Please seek advice from your health professional about treatments for hearing loss. Outcomes may vary, and your health professional will advise you about the factors which could affect your outcome. Always read the instructions for use. Not all products are available in all countries. Please contact your local Cochlear representative for product information.