Characteristics of cochlear implant patients who use a contralateral hearing aid

### **Comments by participants**

# A. Comments by continuing HA participants grouped by "theme" follow.

Information about degree of hearing loss in the unimplanted ear, length of CI use, and CNC scores for HA alone, CI alone and CI + HA appear in parentheses).

#### Hear better using HA with CI.

- I am depending on the implant more than the aid. Yet I have an "enhanced" hearing with both. I do hear better with both on (moderate to severe SNHL; >2 years; 40% HA, 68% CI, 82% CI+HA).
- On the rare occasions when I've had to rely only on the implant (because the
  hearing aid battery went dead) I've been able to manage. However, the sound level
  turns low and I have difficulty hearing persons with soft voices. I would not want
  to go to meetings without both aids (Severe SNHL; 1 year; 36% HA, 38% CI, 50%
  CI + HA).
- I feel that I need the assist of the hearing aid to give me a balance of sound. If I take the hearing aid out I lose the comfort level of understanding what is being said or the sense of where a sound is coming from. (Severe SNHL; 1 year; 0% HA, 78% CI, 84% CI+HA).

- I get an echo/reverberation on both my implant and hearing aid. With any kind of background noise I miss between 20-50% of spoken words. Even with the Roger/mic pen I still miss about 10%. But with just one or the other, I would miss much more so having both definitely helps (Severe SNHL; 1 year; 36% HA, 46% CI, 52% CI+HA).
- I had hoped that when I got the CI I would no longer need the HA, but such was not the case (Moderate to severe SNHL; 1 year; 56% HA, 64% CI, 80% CI+HA).
- Implant alone far surpasses the hearing aid alone. Using both simultaneously makes sense (Severe to profound SNHL; 1 year; 4% HA, 70% CI, 70% CI+HA).

### Perceived benefits of bilateral hearing

• When I got my implant, it was recommended to wear it with the hearing aid.
However, a few years ago before my implant, a classmate received a unilateral CI and was told not to wear the hearing aid. I could see how she would lose a lot of the conversation and constantly had to turn her head to hear the conversation. As for me, I feel more control with the CI & HA. I can function better with CI at work if I had to choose one. Quite honestly I imagine that people make the choices based on

what providers recommend, their comfort level and what is demanded of them from their lifestyle. (Steeply sloping SNHL; 8 years; 36% HA, 82% CI, 84% CI+HA).

CI+HA balanced my hearing needs. It is probably not as good as with bilateral CIs but is definitely better than a CI alone. I appreciate the difference it has made in my life. Having the CI saved my career. I was not doing well at all with the left HA alone. Using both the CI+HA enhances my sound awareness, but I can't always determine its origin (Profound SNHL; 12 years; 14% HA, 72% CI, 76% CI+HA).

# HA enhances sound quality.

- I find that using both gives me a fuller, most accurate and realistic sound. Sound seems more natural. Without the HA, the CI sounds robotic, high pitched and tinny. For the phone, using speakerphone with both is clearer (Moderate to severe SNHL; 1 year; 40% HA, 68% CI, 82% CI+HA).
- The implant has made a big difference in my life. I do still have difficulty with loud environments and when several people are talking at once. Sound has better quality (more natural) with hearing aid. Not sure how much difference it makes

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with comprehension. (Good low frequency, steeply sloping SNHL; 2 years; 16% HA, 90% CI, 90% CI+HA).

• I love the combo. They're 2 different sounds separately, but together they sound great and in unison (Severe SNHL; 2 years; 90% HA, 70% CI, 96% CI+HA).

## Improved quality of life

- Together they improve my quality of life (Sloping SNHL, mild to severe; 1 year; 40% HA, 66% CI, 72% CI+HA).
- I feel a big difference in my hearing since I have the CI and my new HA. It is so much better. I've lowered the sound on the TV. Music is so much clearer and enjoyable. Friends have told me that they feel there is an improvement as well. It has made a big difference in my life (Moderate to severe SNHL; 1 year; 48% HA, 24% CI, 74% CI+HA).

## HA for awareness of sound on unimplanted side (no other benefit).

• I use the hearing aid and implant together just for "balance" walking. Hearing aid provides no hearing for me, just some noise. I can use implant only to hear just as

well with or without the hearing aid (Severe to profound SNHL; 3 months; 0% HA, 30% CI, 44% CI+HA).

- When I drive I feel that I have to wear a hearing aid to be aware of sound in the non-implanted ear since I now have very poor hearing in that ear. (Profound SNHL; 3 years; 0% HA, 80% CI, 82% CI+HA).
   HA is being used until can get second CI
- I hear better with my CI now. My worst ear was implanted. Now that ear is better with the CI. I would like to have a second CI, but am not sure if Medicare will cover the cost (Steeply sloping SNHL; 1 year; 28% HA, 58% CI, 66% CI+HA).

### Time is needed to adjust to using the signal from the CI

- The CI was turned on 3.5 months ago, so I am still adjusting to it. I can't use it by itself and hear well. Since I have no hearing on the implant side, I became very dependent on the HA side for the past 13 years. It is very difficult to break this habit (Moderate SNHL; 3 months; 48% HA, 24% CI, 74% CI+HA).
- For a long time, the sounds from the HA & CI would not blend together. I would hear these sounds separately. But since my last MAP (one month ago), both ears seem to be working harmoniously. I struggle with voices from the CI alone--that's

why I will always wear the HA. But both devices together seem to give me better results. Better than ever in fact! (Severe to profound mixed HL; 1 year; 66% HA, 38% CI, 66% CI+HA).

• Very pleased with both HA and implant--no sound delay or echo problems that others with similar background/loss have had, and thus [they] do not wear a HA. I hear many new sounds with my implant that I do not hear with my hearing aid. I still prefer to use the telephone in T-coil mode with hearing aid at this time (Severe to profound SNHL; 3 months; 8% HA, 56% CI, 54% CI+HA).

# Awareness of need for continued attention to coordinating HA with CI.

- My current HA (purchased post-CI) needs to be replaced in the near future. I wear it at maximum volume to balance hearing with the CI (Profound SNHL; 12 years; 14% HA, 72% CI, 76% CI+HA).
- Noisy Situations are extremely challenging. Even if I change the program on my cochlear implant, I have a very difficult time hearing. I am planning on getting a new hearing aid with multiple programs (and Bluetooth) and I hope that will make a difference (Moderate sloping to severe SNHL; 2 years; 82% HA 66% CI, 86% CI+HA).

- My HA audiologist is still trying to set the volume level for me to hear as loudly as
   I now hear with the CI (Moderate to severe SNHL; 2 years; 24% HA, 68% CI, 78%
   CI+HA).
- There are definitely times when the hearing aid takes away from my ability to understand what is being said. In those instances I try to adjust the volume of the hearing aid down a bit unless there is total quiet, the hearing aid still seems to give a good benefit and this increases as the noise level increases. I do not do well at all with just the cochlear implant when there is a lot of background noise (Profound SNHL; 3 months, 50% HA; 94% CI, 80% CI + HA).

## B. Comments by participants who discontinued HA use

- I was getting two different sounds from the implant and the hearing aid. I stopped wearing the hearing aid because I think it needs repair and it's about 3-4 years old now (severe SNHL; 6 months HA use; 10% HA, 38% CI, 38% CI+HA).
- I decided to stop using the hearing aid. I now think that I should have looked into an alternative hearing aid, to see if there was one that would have helped me hear better. On the other hand, it was a joy not to have to bother with a hearing aid, the discomforts, the batteries, etc. I never particularly liked the hearing aids that I was

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using before I got the implant, and I don't feel that using the implant in conjunction with the remaining aid was a deterrent to the benefit that I had previously gotten from the aid (Moderate to severe SNHL; 1 year HA use; 6% HA, 88% CI, 90% CI+HA).

• I stopped using a hearing aid because I couldn't get enough volume out of it without feedback. The implant ear was doing all the work while the hearing aid was interfering. Decided to get an implant in the second ear and it is wonderful (Profound SNHL; 3-6 months HA use;0% HA, 62% CI, 86%;CI+HA).