Addendum: **Consumer use of and preferences for assistive communication technology in public places.**

# I Can't Hear Here!

*...many will realize only after the affair commences that they need to use an ALS and, by then, it's too late to get one.*

The complaint about being unable to hear after an event begins is made far too often at what the American's with Disabilities Act (ADA) calls large places of assembly.  It's a problem for which the solution is sometimes problematic. It manifests itself for literally millions of hard of hearing people when they attempt to share music, lectures, theatrical performances and even worship services with friends and family.  It deprives them of the ability to receive the same degree of pleasure, knowledge, enjoyment or comfort as that experienced by people with so called "normal" hearing. The ADA's solution to this problem, instituted over thirty years ago, was a mandate for assistive listening systems (ALS) that are woefully underutilized by the very people they were intended to help. With its cumbersome enforcement system, violations by venues are seldom investigated or any action taken as a result of the violation.

In early September, the Committee for Communication Access (an ad hoc committee of advocates for the hard of hearing) conducted a national survey to explore ongoing communication access problems and possibly suggest solutions for them. The data from that survey's thirty multiple choice questions has been processed and a report of the committee's findings has been posted at their website ([www.ccaa.name](http://www.ccaa.name)). In addition to answering the questions, respondents were, in places, invited to provide comments in essay form.  Many accepted that invitation and all of their comments are also posted at the website.  Those comments have shed some light on the reason assistive communication technology is not used by so many with hearing loss.

One reason is a no-brainer. Assistive communication systems will not be used if they are not present and adequately promoted by those "places of assembly.  Survey respondents reported that nearly half the time they look for such assistive communication systems they are "never" or "seldom" present.  Further, they reported that, over half the time there were problems of some sort with an existing system. Consequently, at lest half the time they are considering visiting a venue that they know does not have an assistive system.

Given the opportunity to choose their preferred technology among the various aural and visual assistive technology alternatives, Communication Access Realtime Translation (CART) or some other form of captioning was the first choice for the largest segment of survey respondents – particularly among seniors or those with the most severe hearing loss.  Asked what system they would recommend if only one was to be available, 61% of survey respondents picked captions with the other 39% spread among the various ALS configurations.  Unlike an assistive listening system (ALS), the ADA does not mandate captioning so more times than not, even when specifically requested, it is not offered.  Captioned telephone service providers have found that today's computer-generated speech recognition software is faster and approaches the accuracy of captions created by a human captioner.  It's less expensive and easily installed but, alas, it's seldom offered and usually refused when requested from a venue.  This leaves only some form of an assistive listening system (ASL) as an alternative.

Hearing loops are the preferred ALS by most hearing aid wearers they are accessible with the simple touch of a button on hearing aids or a hearing implant processor. 60% of respondents with a telecoil capability reported "always" using a hearing loop while only 20% of all respondents "always" used an FM or IR system.  Through a receiver and earphones, loops serve all users without telecoils just as other systems do.

Though loops are price competitive on a cost per user basis, most venues will opt for an FM or Infrared system to save money on the initial installation cost. This requires many users to a) get in line and then later, wait to return a receiver, b) risk damage or loss of precious hearing aids to don ear phones or a neckloop.  It's not uncommon that many will realize only after the affair commences that they need to use an ALS and, by then, it's too late to get one. Only if the ALS is a hearing loop and visitor has telecoil equipped hearing aids is this problem easily solved.,

Survey users cited a number of problems they encounter when needing the benefits of assistive communication technology. Over 1,000 of the survey's 1500+ respondents took the time to detail the problems they have encountered. Among their comments were the following with the first three reported the most often:

- Staff not adequately trained in use of equipment
- Batteries dead or died during event
- Absent or inadequate signage
- Need help in getting borrowed equipment to work properly
- Some hearing loops have dead spots or weak signal
- Seats were "out of range" for caption glasses
- Headset found to be non-hygienic
- Borrower ends up training staff on operation of devices
- Not enough headsets on hand
- WiFi not working for captioning app
- Interference in the signal sent to the receiver
- Quality of sound was not good
- Staff cannot find devices
- Not enough volume available on earphones
- Neckloops don't work
- Many places don't offer neckloop option to earphones
- Presenters use mic inconsistently
- On/Off switch hard to find
- Latency in system distracting
- Long wait to return receiver
- Headset too uncomfortable
- Captions too delayed
- Counter loop not working at ticket counter
- Just too much hassle

It was not uncommon for respondents to indicate they did not use the technology after experiencing the many problems detailed in their comments.

The focus of the survey was on the use of assistive communication technology in large public venues with places of worship heading the list followed by "live" theaters.  This did not, however, preclude the mention of its use in other settings. Guided tours, museum exhibits, a national forest visitor center, at a testing lab, home TV rooms, a court room, on a cruise ship and others found their way into the mix.

The invitation to offer general comments on assistive technology, respondents submitted over three-hundred thoughts and suggestions.  Among them were these few picked at random:
- Airports and other transportation centers need to have visual versions of all aural information being broadcast.

- Hospitals and other medical facilities need to be more hearing loss friendly
- I could not answer some questions as I know little or nothing about assistive communication technologies.
- I need these technologies.  Unfortunately they are not well understood by most audiologists.  I found an excellent one last year and, for the first time in my life (because of a friend) I knew to make sure I got t-coils in my new aids and asked for a partner mic and Roger On.  Audiologist was surprised I asked, tried to talk me out of t-coil, but gave  me all three.
- Covid showed how important assistive technologies and devices are to facilitate communication.
- The use of native speech to text systems in newer Apple iPhones has been revolutionary! No apps needed but so few HoH know of this feature. Even the Apple tech guys in the store are  often not familiar with it. Tunity app for regular live TV is great but not many know of it.
- There seems to be a huge lack of help from audiologists who are not recommending assistive devices and, in fact, misinform people about them.  I was told I had t-coils when I didn't! It's not just me...many people are not getting the proper help with assistive devices.  Thank goodness for HLAA and Dr. Cliff!
- Taking this survey was useful, eye opening to see how little I remember of all the      different types of systems.  I am not active and tend to opt to attend events via Zoom so that I can hear, ie. Memorial service, city council meetings.  For musical theater, I listen to score ahead of time and read script if available.
- Looking forward to cost effective technologies such as Auracast as many venues find looping not in their budget.  Also, I prefer good speech recognition software to manual CART as the latter often lags.  Some CART operators wait to send a long sentence or paragraph.  Annoying
- Thank you for creating this survey.   I've worn hearing aids for 60 years and don't recall any opportunity like this.

As noted earlier, an eight page report on the results of the survey, plus graphs and the thousands of comments offered by respondents are available for review or download at www.ccaa.name.  This information is expected to help providers of services to people with hearing loss make informed decisions as to what form of assistive communication technology is the best choice for that segment of hard of hearing population that they serve.  It, likewise, informs hard of hearing consumers so they can learn from others and advocate for the technology that will be the most likely to be used.

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