ON A MISSION

Humanitarian Audiology

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An estimated 250 million people worldwide have hearing impairment, and two-thirds live in developing countries, according to the World Health Organization (WHO). Julia Roskamp, MA, FAAA, executive director of ComCare International, in Macomb, IL, believes the incidence of hearing loss is much higher.

We’re not going to know until surveys are done and places are established that people could come to and get hearing tests,” she told ADVANCE.

WHO hopes to eliminate 50 percent of the burden of avoidable hearing loss by 2010, and the audiology community can help to meet that goal via humanitarian efforts by clinicians like Roskamp. Currently, many audiologists travel to developing countries or to U.S. regions where hearing health care services are not available due to location or finances.

Humanitarian audiology is an important tool in promoting research priorities for hearing loss in developing countries and disadvantaged communities.

“There’s an extreme lack of data for hearing loss in developing countries,” said De Wet Swanepoel, PhD, a senior lecturer in the Department of Communication Pathology at the University of Pretoria in South Africa. “Humanitarian services can provide not only a service for these individuals and research data but also help to advocate for the importance of hearing loss and hearing health care services.”

Data are essential in planning hearing health services for underserved populations. Governments typically are not aware to the extent that hearing loss impacts society and the effect it has on individuals.

“It can influence policy and advocacy for hearing impairment and those who are disabled by hearing impairment, but it also provides contextual data for planning appropriate services,” he said.

“In a lot of these countries, there are no surveys of what hearing health care services are being delivered, so we don’t even know what’s happening.”

Many governments and health departments in developing countries do not view hearing issues as a priority because of the much larger burdens they must deal with.

“The general sentiment in developing countries is mainly aimed at saving lives,” emphasized Dr. Swanepoel. “As audiologists, we want to think beyond survival and look at quality of life.”

The fact that hearing loss is an invisible disability also leads to less advocacy and research support.

Humanitarian audiology is rooted in planning and executing appropriate services for a specific country or community and making sure the efforts are sustainable.

“The sustainability aspect of these projects must be emphasized because you don’t just want to come in, deliver a service, and then not be able to sustain it,” said Dr. Swanepoel. “If you supply children with hearing aids and don’t have a sustainable service to continue servicing them and providing batteries, the project is going to be of limited value and of short duration.”

Combining training and collaboration with local professionals and community workers helps to ensure sustainability.

“It’s about empowering individuals to continue the work that you started or at least continue the work on some level, even if you still get input and visit these programs periodically,” he said.

“Inconsistent and spotty programs only alienate a community against our services and programs,” stated Jackie Clark, PhD, CCC-A, a senior clinician and AuD program faculty member at the University of Texas-Dallas Callier Center and research adjunct at Witwatersrand University in South Africa. “Perhaps the best phrase to pass along is that if you are going to provide services on an inconsistent basis without a long-term plan in place, do not go.”

Existing, efficient projects typically operate at a quick pace.

“As soon as word gets out that there’s an audiologist on the trip who might have some hearing aids, people line up at the door from dawn till dusk,” said Roskamp. “And people will travel—everybody has a relative who needs a hearing aid.”

Clinicians should be prepared to start early and finish late. Taking a break for lunch is not always an option, nor are other amenities.

“The limited resources in a region may not include electricity or running water, so a hot shower or cup of tea at the end of the day isn’t going to happen,” said Dr. Clark, who established a program in Mozambique. “Being flexible and respectful of the local cultures may cause some to feel like they aren’t in control, but many wonderful memories will come out of the process.”

It’s important for audiologists to align themselves with existing projects or organizations in the country they’re visiting, such as hospitals, universities or non-government organizations. Once these institutions incorporate audiology into their services, people with
huring fork tests or inner ear exams can be conducted. If a hearing loss is deemed uncorrectable, parents should be referred to an audiologist.

It's important to be able to identify good candidates to train. For instance, some Eastern European countries have many highly educated and motivated people in jobs that require little skill. One way to involve these individuals in audiology services is to train them in the manufacturing of earmolds or as audiometric technicians so they can perform simple hearing tests and troubleshooting.

"They're not going to replace us by any means, but they are an adjunct to us," said Roskamp. "We can multiply our services so they have more of an effect."

"If you can combine training personnel with the service delivery on any level—physician, audiologist, community worker or nurse—you'll have a most efficient trip," said Dr. Swanepeol. "We work with people in local communities to assist them in these projects. That's the only way you can do an effective and sustainable type of project."

In Nigeria the large number of individuals with hearing impairment is due to an overall lack of health care. Many people in the northern region are nomadic, making it difficult for them to seek out treatment for a middle ear infection, for example. Without the necessary antibiotics, a child may develop cholestecomas later in life from repeated infections.

"If they couldn't afford health care, they're not going to be able to afford the surgery to repair that kind of thing," said Roskamp. "The only thing they can do is live with the hearing impairment."

Some have tried to link the high incidence of hearing impairment in developing countries to income, but there is a severe lack of data to support such a claim. In countries that don't have organizations like the Occupational Safety and Health Administration (OSHA), people living in poverty often take jobs that may be hazardous to...
WHO Guidelines for Audiologists

The World Health Organization (WHO) outlines four categories of service for audiologists in developing countries: awareness, identification and assessment, provision, and support for users.

The first objective aims to raise awareness of hearing impairment and how to prevent it within many groups of society. Programs are encouraged to operate on various levels: nationally, to influence policy-makers; provincially, to influence medical, educational and social service providers; and locally, to inform the community.

Identification and assessment, the second category of service, includes an initial screening test at the primary level to identify individuals with hearing impairment. A screening procedure could include a combination of a short questionnaire concerning ear and hearing health; an ear examination, preferably with an otoscope; a simple hearing test with known and proven characteristics; a questionnaire for parents regarding their child's speech and auditory development; and a voice test. These assessment procedures should be carried out by a trained community worker.

“...When a person is found to have a possible hearing problem through failing the primary level of identification, they should be referred for a secondary level of assessment that would involve further diagnostic assessment,” said Jackie Clark, PhD, CCC-A, a senior clinician and Aud program faculty member at the University of Texas-Dallas Callier Center and research adjunct at Witwatersrand University in South Africa.

Such a hearing assessment should include a brief case history: a medical assessment, if possible; a frequency-specific test of threshold for each ear; classification, degree, shape and cause of hearing loss; and an interpretation and decision as to whether a hearing aid would be beneficial.

The third category of service is provision of hearing aids. This includes supply, pricing, distribution, delivery and fitting.

“Before the program even enters the assessment and identification stage, it is the burden of the program coordinator to establish a reliable source for supplies, parts, batteries and so on.” said Dr. Clark.

The program coordinator also determines what degree, shape and cause of hearing loss will justify the dispensing of a hearing aid. WHO defines “disabling hearing impairment” as a permanent unaided hearing threshold for the better ear in adults of 41 dB or greater and for children under age 15 of 31 dB or greater for the frequencies 0.5, 1.0, 2.0 and 4.0 kHz.

Support for hearing aid users and their caregivers is the final category of service. This begins with language-specific instructions on care and maintenance of the instruments, as well as counseling on expectations and responsibilities for repairs and replacements.

“The service and delivery system must be constantly monitored and documented regularly by the program coordinator,” said Dr. Clark. “Outcome indicators of the program should be regularly analyzed, with specific targets established.”

Questions should include how many individuals with hearing impairment are in the local community, how many hearing aids have been dispensed in the community, and how many people continue to use their hearing aids.

Training, which is at the very core of the guidelines, is an essential component to making the program self-sustaining within local constraints.

“I often say that my objective in Mozambique, where I've established a guidelines...continued on page 15

In countries plagued with epidemics such as AIDS, survival often takes top priority. Humanitarian audiologists look beyond survival to quality-of-life issues.

In some African countries a man's wealth is measured by the number of children he has. His wealth may be seen as diminished if he has a child who is disabled. As a result, these children often are abused.

It is important to respect the cultural ideals of a community when identifying hearing loss and to show that family wealth is not diminished—but instead greatly enhanced with another contributing member—through the help of hearing aids, lipreading or sign language, explained Dr. Clark.

Parents in the African culture place a bigger emphasis on milestones for motor skills than for speech and language. It's much more important for children to be walking at 12 months than to say their first word.

Another major challenge in South Africa, which has 11 official languages, is linguistic diversity. People living in remote regions do not understand English. Therefore, audiologists should use an interpreter. Sometimes community health workers can fill this role.

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A priority among hearing health issues in South Africa is identifying hearing loss. There are only a few pilot screening studies at regional hospitals where high-risk infants are tested. The goal is to screen all babies in the future.

Because South Africa has a high incidence of HIV, clinicians are investigating its effect on infant hearing. A pilot project has shown a "much increased prevalence of hearing loss among high-risk infants exposed to HIV," reported Dr. Swanepoel.

Humanitarian audiologists often develop a greater appreciation for the people they serve, said Roskamp. The typical news stream that Americans receive about Israel, Haiti or Nigeria—countries she has visited to provide services—is that they're dangerous, poor and undesirable locations to visit.

"Most of the time the news is focused on a small group or area of the country," she recounted. And despite their situation of poor finances, the people "help each other and enjoy a huge community. Many times we cut ourselves off from that in the United States."

After audiologists have given of their time and effort, the people who receive services often walk away with a different viewpoint of Americans as well.

Audiologists who are interested in humanitarian work should find a group they feel comfortable with and trust, she recommended. The people they get involved with should be steady and trustworthy and share the same philosophies and objectives.

"You might rediscover why you went into audiology to begin with, which was to assist those who need help," said Roskamp. "When you can make a difference in a child's or adult's life, that makes a difference in their family's life, which makes a difference in their community. We can't forget those who can't afford [hearing aids] but still need to hear."

Reference

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