



Schoolchildren wearing hearing aids. MADAGASCAR



Bradley McPherson

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In underdeveloped countries there are very few hearing aids available. In the United States, the need for hearing aids is the greatest. The situation in the rest of the world is a lot worse. The World Health Organization estimates in 2007 that 35 million hearing aids are needed each year in the United States but only one million hearing aids are made.

There are a number of reasons for this unmet need. The most obvious is the immediate need for hearing aids in the United States. The potential user in the United States is a global market dominated by the European and American manufacturers.

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FIGURE 3



An 'otostop' is inserted before the impression material



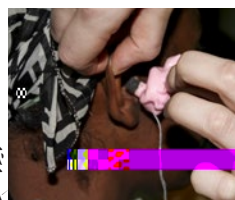
Trained earmould technician correctly placing the otostop



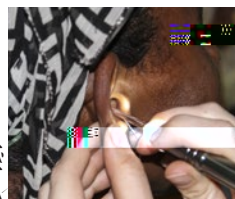
Introducing the impression material



Waiting for it to dry



Carefully removing it



Checking the ear canal

- Channels:
- Feedback cancellation:
- Directionality and noise reduction:
- Bluetooth connectivity to mobile phones and other media devices:
- FM systems

Powering up hearing aids

Powering up hearing aids involves several steps to ensure they are ready for use. This includes checking the battery level, ensuring the hearing aid is properly inserted into the ear, and verifying that the volume is set correctly. It is also important to clean the hearing aid regularly to prevent wax buildup, which can affect performance. Additionally, users should be aware of the hearing aid's range and any potential interference from other electronic devices.

Types of hearing aids

There are several types of hearing aids available, each designed to address different hearing needs. These include behind-the-ear (BTE) hearing aids, which are worn behind the ear and connected to the ear by a tube; in-the-ear (ITE) hearing aids, which are custom-made to fit inside the ear; and cochlear implants, which are surgically implanted and provide a direct electrical connection to the auditory nerve.

Body-worn hearing aids (BW)

Body-worn hearing aids (BW) are designed to be worn on the body rather than in or behind the ear. These aids are often used for individuals with severe hearing loss or those who have difficulty wearing traditional hearing aids. They typically consist of a microphone and a speaker, connected by a tube, and are often used in conjunction with a hearing aid processor.

Behind-the-ear hearing aids (BTE)

Behind-the-ear hearing aids (BTE) are one of the most common types of hearing aids. They are worn behind the ear and connected to the ear by a tube. BTE hearing aids are often preferred for individuals with moderate to severe hearing loss. They offer a variety of features, including directional microphones, noise reduction, and feedback cancellation. BTE hearing aids are also available in rechargeable and non-rechargeable models.

Barriers to the use of hearing aid systems in low- and middle-income countries

Andrew Smith



Andrew Smith is a senior research fellow at the Centre for Global Health, London School of Hygiene & Tropical Medicine. He is also a senior research advisor at the World Health Organization, Geneva. He has been involved in the development of hearing aid systems in low- and middle-income countries for over 20 years.

Hearing aid systems are used by approximately 1 billion people worldwide, with the majority of users in high-income countries. In low- and middle-income countries (LMICs), the use of hearing aid systems is significantly lower, with only a small fraction of the population having access to hearing aids. This is due to a variety of barriers, including lack of awareness, cost, and limited availability of hearing aid services.

Barriers to availability of hearing aids in LMICs

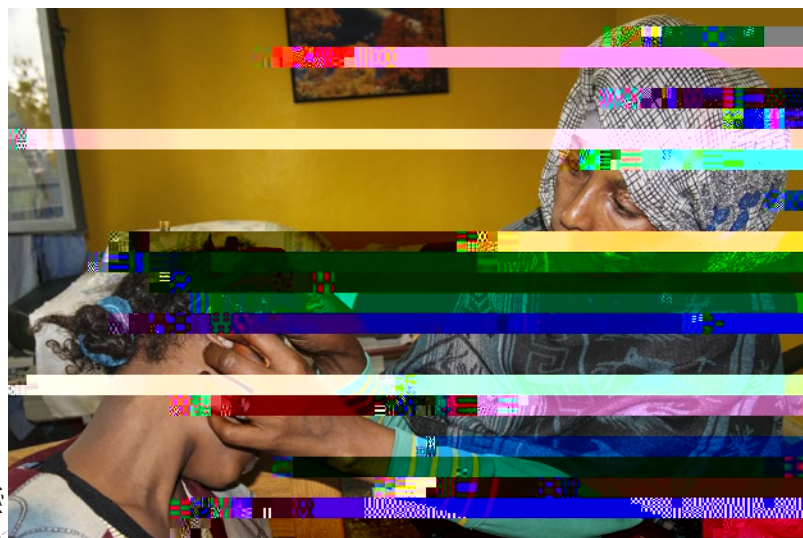
The availability of hearing aids in LMICs is limited by a number of factors, including a lack of awareness, high cost, and limited availability of hearing aid services. In many LMICs, hearing aids are not available in primary health care facilities, and the cost of hearing aids is often prohibitively high for many people.

Poor supply of hearing aids by manufacturers

The poor supply of hearing aids by manufacturers is a major barrier to the availability of hearing aids in LMICs. Many manufacturers do not produce hearing aids in LMICs, and the supply of hearing aids is often limited to a few high-end models. This is due to a number of factors, including high production costs, limited demand, and a lack of infrastructure for the production and distribution of hearing aids.

Mother helping her daughter insert her hearing aid.

ETHIOPIA



Lack of awareness

Lack of awareness is a major barrier to the use of hearing aid systems in LMICs. Many people do not know that hearing aids are available, and they may not understand the benefits of hearing aids. This is often due to a lack of education and information about hearing loss and hearing aids.

Barriers to accessing hearing aids in LMICs

Cost is a major barrier to accessing hearing aids in LMICs. Hearing aids are often expensive, and many people cannot afford them. This is especially true for people in rural areas, where the cost of hearing aids is often even higher due to transportation costs.

WHO Guidelines for hearing aids and services in developing countries

The WHO Guidelines for hearing aids and services in developing countries provide a framework for the development of hearing aid services in LMICs. The guidelines emphasize the importance of community-based hearing aid services, which are often more accessible and affordable than traditional hearing aid services. The guidelines also emphasize the importance of training and support for hearing aid users, as well as the importance of ongoing monitoring and evaluation of hearing aid services.

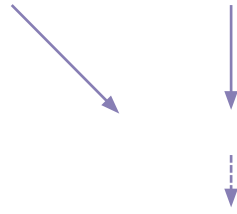
Lack of services

Lack of services is a major barrier to the use of hearing aid systems in LMICs. Many people do not have access to hearing aid services, and the quality of hearing aid services is often poor. This is due to a number of factors, including a lack of trained personnel, limited infrastructure, and a lack of funding for hearing aid services.

Lack of referral by medical and other health personnel

Lack of referral by medical and other health personnel is a major barrier to the use of hearing aid systems in LMICs. Many people do not know where to go for hearing aid services, and they may not be referred to hearing aid services by their health care providers.

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Beyond devices: what to consider when providing hearing aids in LMICs



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Improving access to hearing care and hearing rehabilitation in the Philippines



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During the COVID-19 pandemic, the Philippine Society of Hearing and Hearing Rehabilitation (PSHR) has been actively involved in providing hearing care and rehabilitation services to the hearing impaired community. The organization has been providing hearing care and rehabilitation services to the hearing impaired community through various channels, including telehealth, home visits, and community-based services. The organization has been providing hearing care and rehabilitation services to the hearing impaired community through various channels, including telehealth, home visits, and community-based services.

Developing comprehensive services for access to hearing rehabilitation

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1 Research and policy advocacy

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- Conducting research on hearing care and rehabilitation services in the Philippines.
- Advocating for policies that support hearing care and rehabilitation services in the Philippines.
- Providing training and capacity building for hearing care and rehabilitation professionals in the Philippines.
- Providing hearing care and rehabilitation services to the hearing impaired community through various channels, including telehealth, home visits, and community-based services.

2 Capability building

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Health nonprofit

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- Advocating for policies that support hearing care and rehabilitation services in the Philippines.
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Tips to take care of your hearing aids



PROTECT THEM

- Do not expose your hearing aids to water or other liquids
- Try not to drop hearing aids, as they are delicate. Put them away when not in use to avoid mechanical damage
- Do not wear hearing aids if you have an ear discharge or infection
- Store hearing aids in a dehumidifying jar when not in use. You can make one by placing rice grains at the bottom of a jar and covering them with tissue, before placing the hearing aids on top and tightly closing the lid

CLEAN THEM REGULARLY

- Use a soft cloth and brush to clean hearing aids so that they do not get blocked with dust or dirt
- Earwax can block hearing aids' plastic tubing. Make sure to clean it with a special brush or cleaning wire
- Earmoulds should be detached from the hearing aid and washed regularly. Use baking soda in water or warm soapy water (**not** strong detergent or spirit). Ensure that the mould is completely dry before re-attaching it
- Do **not** use hairpins, paperclips or any sharp object to remove dirt from hearing aids or earmoulds

MAKE SPECIALIST APPOINTMENTS TO ADJUST OR REPAIR THEM

- Contact the staff who fitted your hearing aid if you feel pain or discomfort when wearing it, or if it does not seem to improve your hearing
- Contact hearing aid repair services if your hearing aid stops working. Do **not** try to repair it yourself