

**GUIDELINES FOR HEARING AIDS
AND SERVICES FOR
DEVELOPING COUNTRIES**

**Second Edition
September 2004**



World Health Organization
Prevention of Blindness and Deafness (PBD)

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EXECUTIVE SUMMARY

These **guidelines** have been developed by an expert working group set up following a recommendation by the *WHO-CBM Workshop on Needs and Technology Assessment for Hearing Aids Services in Developing Countries* held in 1998.

Current production of hearing aids is one-tenth of the global need and only one quarter of these are distributed to developing countries. There is an **urgent need** to provide hearing aids and services that are appropriate and affordable for developing countries, taking into account the scarcity in resources of skills, training, services and finances in most developing countries. These guidelines set out **minimum requirements** and recommendations for such hearing aids and services, and are particularly targeted at manufacturers, distributors, policy makers and service providers at all levels. It is intended that the hearing aid requirements given here would enable manufacturers to produce them at low cost and in bulk with currently available technology.

The guidelines recommend that **priority for hearing aids** and services should be given to children with an average hearing impairment in the range 31 to 80 dBHL in the better ear in the frequency range 500Hz to 4kHz, followed by adults with an average hearing impairment in the range 41 to 80 dBHL in the better ear in the same frequency range. Behind the ear hearing aids should be the preferred option but body-worn aids may still be required in some situations, provided they are of similar reliability and no greater cost than behind the ear hearing aids. To ensure that a basis for specifying the electroacoustic performance of hearing aids is available a **minimum performance specification** is given; this does not preclude the use of higher performance aids as appropriate.

Persons with profound hearing impairment may benefit from a Cochlear implant(CI) but implantation is not recommended unless the necessary medical, technical, educational, psychological and hearing therapist resources and services are available. Also, where resources are limited, the available resources may be more effectively used to prevent a greater burden of hearing loss in more people through using less costly interventions.

Manufacture or assembly and servicing of hearing aids should be feasible in developing countries. Hearing aids and batteries that are imported from another country should be classified as medical devices in order to avoid import duty. **Batteries** should be zinc air or rechargeable type. The availability of a reliable supply of batteries is essential.

Earmoulds should be individually made by a two-stage syringe technique in locally established static laboratories; other methods that maintain the same quality may be used. Portable, mobile facilities may be necessary in less accessible areas. Universal or stock size earmoulds should only be used as a temporary measure. Earmoulds should be replaced at recommended intervals.

Services for providing hearing aids to users are an essential component of a hearing

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