

**MILLIONS OF PEOPLE IN THE WORLD
HAVE HEARING LOSS THAT CAN BE
TREATED OR PREVENTED**



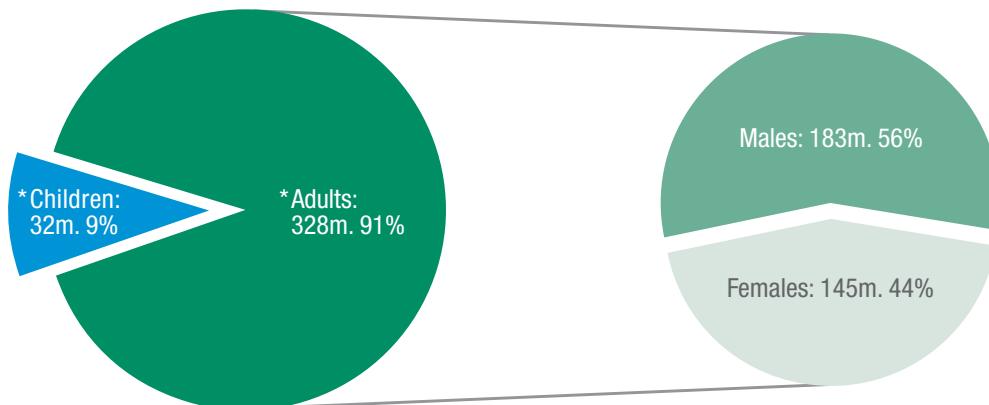
**World Health
Organization**





Photo: Patricia Castellanos De Munoz, CEDAF, Guatemala

360 MILLION PEOPLE LIVE WITH DISABLING HEARING LOSS^a



* Mortality and Burden of Diseases, WHO; 2011 Estimates for disabling hearing loss (DHL).

This is approximately 5.3% of the world population.

32 million of these are children (<15 years of age).

Public health measures can effectively reduce hearing loss.

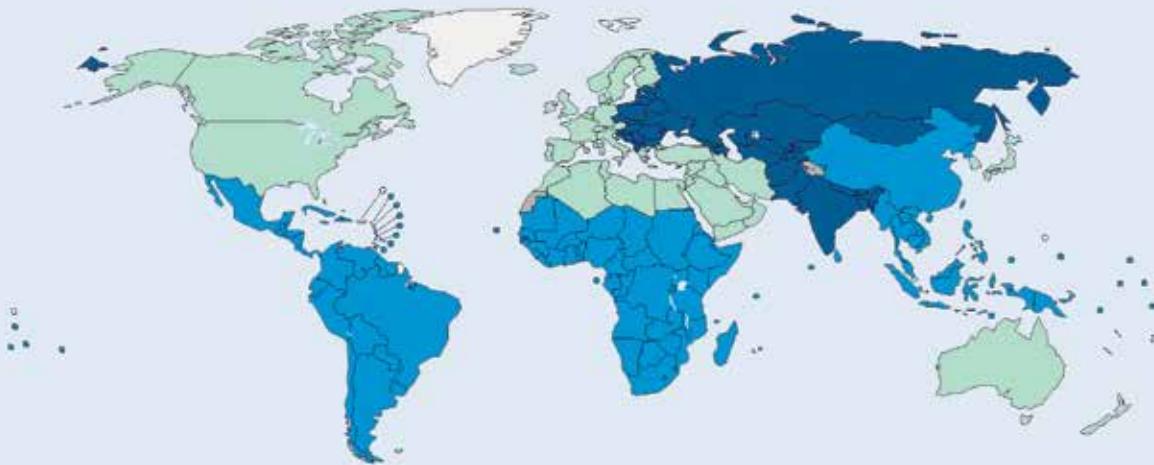
The majority of cases can be treated through early diagnosis and proven interventions.

WHO works to help develop community-based programmes for prevention, identification and management of hearing loss in low- and middle-income countries.

^a Adults (15 years of age and older): Hearing loss greater than 40 dB in the better hearing ear. Children (0–14 years of age): Hearing loss greater than 30 dB in the better hearing ear.

Prevalence of disabling hearing loss for all population by selected regions*

(threshold ≥ 41 dB for adults 15 years of age or more, and threshold ≥ 31 dB children under 15 years of age, WHO 2011 estimates)



Disabling hearing loss prevalence per 100 population

- 2.72% – 4.41%
- 4.42% – 6.13%
- 6.14% – 7.58%
- Data not available
- Not applicable

* Selected regions: High-income, Central/ Eastern Europe and Central Asia, Sub-Saharan Africa, Middle East and North Africa, South Asia, Asia Pacific, Latin America and Caribbean, and East Asia.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: WHO Deafness Prevalence Estimates (MBD Unit)
Map Production: Prevention of Blindness and Deafness (PBD Unit)
World Health Organization

GLOBAL ESTIMATES

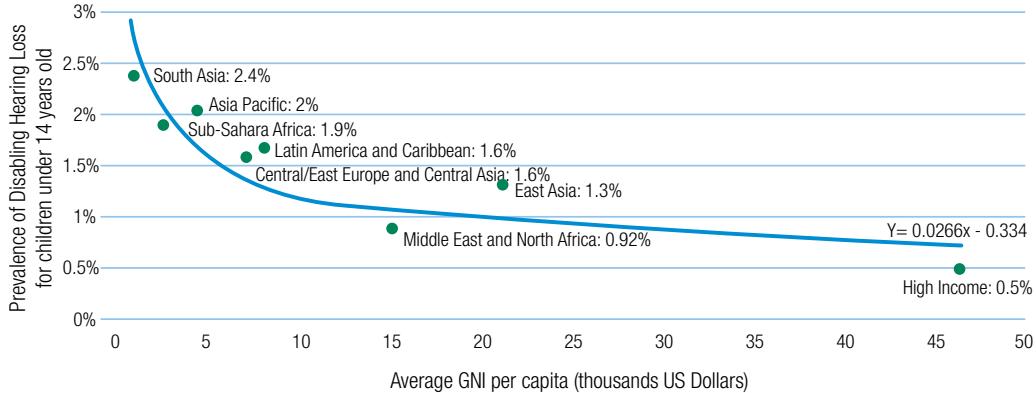
Approximately 15% of the world's adult population has some degree of hearing loss; 25% of them are aged above 65 years.

Hearing loss is unevenly and unequally distributed across the world.

Nearly one third of people aged above 65 live with disabling hearing loss.

Prevalence decreases exponentially as income increases.

Prevalence of disabling hearing loss in children versus gross national income (GNI)



Source: MBD, WHO, 2011 DHL estimates.



Photo: Nazmul Bari, CDD, Bangladesh

CHRONIC EAR INFECTIONS

Over 90% of the burden of chronic ear infections is borne by countries in the South-East Asia, Western Pacific and African Regions, and ethnic minorities in the Pacific Rim.

In some settings, the prevalence of chronic ear infections may be as high as 46%.

Ear infections are usually accompanied by discharge from the ear. This can lead to hearing loss and may cause life-threatening complications, such as meningitis and brain abscesses.

Studies show that the global burden of illness from chronic otitis media^b affects from 65 to 330 million people with ear discharge.

Otitis media is largely preventable, and can be effectively managed through medical and surgical approaches.

Incorporating primary ear care into primary health care is a cost-effective way to reduce the long-term morbidity and mortality caused by chronic ear infections.

^b Chronic otitis media: chronic ear infection.



Photo: Andrew Smith, LSHTM

CHILDHOOD DEAFNESS

Deaf and hearing-impaired children often experience delayed development of speech, language and cognitive skills, which may result in slow learning and other difficulties in school.

32 million children have disabling hearing loss. Causes include:

- Maternal infections such as Rubella
- Birth anoxia
- Low birth weight
- Meningitis, measles and mumps
- Chronic ear infections
- Noise
- Severe jaundice following birth
- Use of ototoxic medicines

Higher prevalence of childhood hearing loss is associated with lower levels of development across regions, as illustrated in the figure below:

Early detection and management of hearing impairments are important elements of appropriate support for deaf or hearing-impaired babies, helping them to enjoy equal opportunities in society.

Regional prevalence of disabling hearing loss in children under 14 years versus average adult literacy

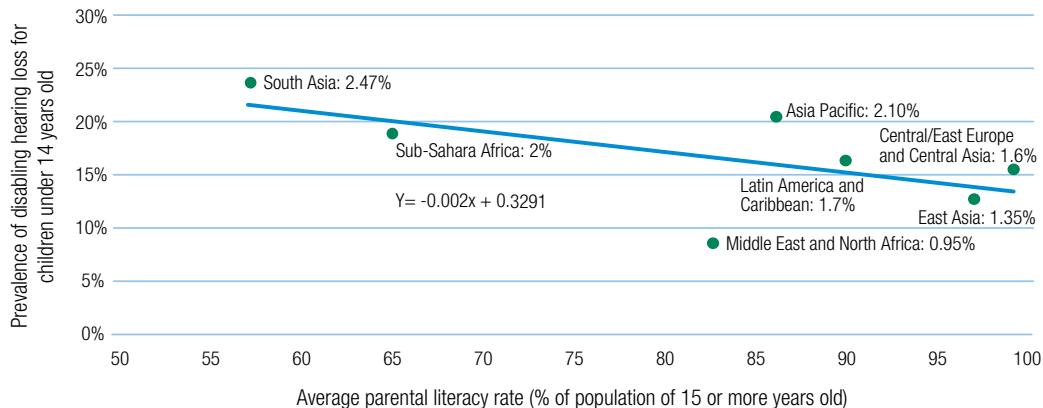




Photo: Ron Brouillette, Tanzania

AGE-RELATED HEARING LOSS

About one third of people above 65 years of age develop disabling hearing loss.

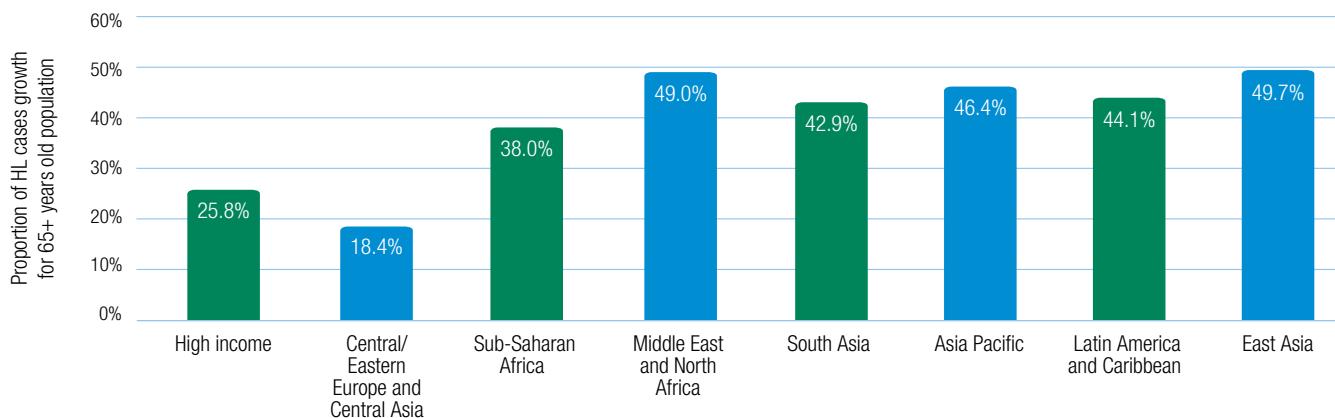
The prevalence of hearing loss among adults above 65 years is thought to be up to five times higher than that for people below 65 years old.

Age-related hearing loss is termed 'presbycusis'.

Exclusion from communication can have a significant impact on everyday life, causing a feeling of loneliness, isolation and frustration, particularly among older people who have hearing loss.

The percentage growth in the number of people aged 65 years and above will be between 18–50% from 2010–2020 in all regions. The number of people with hearing loss will consequently grow by similar proportions, paralleling these demographic changes.

Percentage growth in world population of people 65 years or older, between 2010 and 2020.^c



^c Ten-year projections (2010–2020) assuming no change in current prevalence rates of hearing loss.



Photo: ULBRA, CBM

NOISE IS A MAJOR AND AVOIDABLE CAUSE OF HEARING LOSS

Noise is a cause for concern in all countries.

In many places, excessive noise has become the most compensated occupational hazard. Exposure to environmental noise has been linked to adverse health effects in the European region. Exposure to excessive noise is a major avoidable cause of permanent hearing loss worldwide. Noise-induced hearing loss is completely preventable through improved awareness.

Hearing loss can also occur following the use of ototoxic^d medicines.

Some commonly used medicines (such as aminoglycosides and certain anti-malarial medicines) can lead to irreversible hearing loss.

Ototoxicity can be prevented through awareness among health-care providers and by the rational use of drugs.

d Ototoxic: Damaging to the ear(s).



Photo: Piet Van Hasselt, CBM

IMPACT OF HEARING LOSS

The main impact of hearing loss is on the individual's ability to communicate with others.

Spoken language development in deaf children is often delayed.

Hearing loss and ear diseases – such as otitis media – have a significant adverse effect on the academic performance of children.

“Most deaf and seriously hearing-impaired children rarely receive any schooling in developing countries”.^e

In some countries, cultural or superstitious beliefs regarding hearing loss may create a barrier to prevention, treatment and/or rehabilitation.

People living with disabilities, including hearing loss, have a much higher unemployment rate. Among those who are employed, a higher percentage of people with hearing loss work in the lower grades of employment, than in the general workforce.

Lack of services and access may be a reason for proportionally higher unemployment among people with hearing loss.

In addition to its individual effects, hearing loss affects social and economic development in communities and countries.

These negative impacts arise from the interaction of hearing loss with the wider social environment, and can be significantly mitigated through early identification and appropriate management of hearing problems.

^e WHO Prevention of Deafness and Hearing Impairment, Report by the Director General A 39/14, 1986



Photo: Shelly Chadha, WHO

HEARING AIDS: AN UNMET NEED

Current production of hearing aids meets less than 10% of the global need.

It is estimated that in developing countries, about 20% of people who have hearing loss require hearing aids, suggesting 72 million potential hearing aid users worldwide.

However, current production of hearing aids meets less than 10% of the global need. In developing countries, less than 3% of people who need a hearing aid are thought to have one.

Making affordable and properly fitted hearing aids and follow-up services available and accessible in all parts of the world will benefit many people with hearing loss.

Hearing aid services must also address the issue of fitting, maintenance and battery provision.

It is important to ensure full access to learning and living environments for all persons with hearing loss. In particular, teaching in sign language benefits children with hearing loss, while provision of captioning and sign language interpretation on television facilitates access to information.

HEARING LOSS CAN BE PREVENTED

Hearing loss is preventable through public health measures

- Immunization;
- Effective antenatal and perinatal care;
- Healthy ear and hearing care habits;
- Effective treatment for both acute and chronic ear conditions;
- Avoiding the use of ototoxic drugs, unless prescribed by a qualified physician and properly monitored for correct dosage and side-effects;
- Referring babies for early assessment of hearing, including prompt diagnosis and appropriate management, as required;
- Reducing exposure (both occupational and recreational) to loud noises.
- Hearing loss due to otitis media can be prevented by healthy ear and hearing care practices. It can be addressed through early detection, and appropriate medical or surgical interventions.

Once hearing loss has occurred, a range of secondary and tertiary interventions can help to maximize functioning and inclusion:

- Early detection and intervention is the most important factor in minimizing the impact of hearing loss on a child's development and educational achievements.
- People with hearing loss should have access to improved communication through the use of hearing devices, such as hearing aids, assistive listening devices and cochlear implants.
- People with hearing loss can learn to communicate through development of lip-reading skills, use of written or printed text, and sign language.

ROLE OF WHO

Assists Member States to develop suitable programmes for primary ear and hearing care, integrated into the primary health care system of the country.

Provides technical resources and guidance for training.

Develops and disseminates guidelines to address the major preventable causes of hearing loss.

Builds partnerships to provide affordable hearing aids and services to people in need.

Raises awareness about hearing loss as well as the opportunities for prevention, identification and management.

Maintains a global database to describe the size and impact of the problem.



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AWARENESS IS THE KEY TO PREVENTION

Learn more about hearing loss, its impact, prevention and management at:
<http://www.who.int/pbd/deafness>

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