Community-Based Rehabilitation

Promoting ear and hearing care through CBR

World Health Organization

WHO Library Cataloguing-in-Publication Data

Community-based rehabilitation: promoting ear and hearing care through CBR.

1.Hearing disorders – therapy. 2.Hearling loss – therapy. 3.Community health aides. 4.Community medicine. 5.Rehabilitation. I.World Health Organization.

ISBN 978 92 4 150470 6 (NLM classification: WV 270)

Cover photos, clockwise from top left: Dr Shelly Chadha, WHO; Dr Rajiv Dhawan; Dr Piet Van Hasselt; Chapal Khasnabis, WHO

Design and layout by Inís Communication – www.iniscommunication.com

Printed in India

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Acknowledgements

This document has been coordinated by the World Health Organization's units for Prevention of Blindness and Deafness, and Disability and Rehabilitation.

Ms Sally Harvest was responsible for the overall coordination of this document.

WHO would like to thank the following for their contribution to this factsheet:

Mr Nazmul Bari, Dr Johan Borg, Dr Ron Brouillette, Dr Jackie Clark, Dr Sunil Deepak, Ms Katharina Pfortner, Dr Diego Santana-Hernández, Prof. Andrew Smith, Ms Sian Tesni.

WHO wishes to thank the International Federation of the Hard of Hearing (IFHOH) and the World Federation of the Deaf (WFD) for their valuable inputs and contributions to this document.

BOX 1 Philippines

Community-based rehabilitation for persons with hearing loss

Sarah grew up in the Philippines with a deaf sister. She wanted to become a teacher or an interpreter for the deaf.

She realized that most of the deaf and hard of hearing children in her village were not in school and that some older people with hearing loss were without a job.

Sarah learnt of a community-based rehabilitation project in a neighbouring village. She visited the project to discuss and make plans for the deaf and hard of hearing children in her village.

Soon, Sarah starting leading children with hearing loss to preschools and primary schools. She helped several people with hearing loss, including her sister, to find work with a furniture-making cooperative. She took the initiative of providing workers at a noisy factory with earplugs to help protect their hearing, and she started sign language classes for parents, teachers, law enforcement officers, health workers and interested community workers. She also helped to set up a district and community health scheme to give MMR (measles, mumps, rubella) immunization to girls aged 6 and 12 years.

Sarah received training, learning how to manage common ear infections. She learnt to operate an audiometer and did free hearing tests for villagers, referring them for hearing aids if necessary.

Sarah's work quickly achieved recognition and she – together with doctors – established a national Better Hearing Committee in the Philippines.

Introduction

Hearing loss is the most prevalent sensory disability (*1*) and a problem that is increasing globally. More than 275 million people are reported to have moderate to profound hearing loss; many more have mild hearing loss and/or ear diseases such as otitis media (infection of the middle ear). These problems can cause lifelong – and occasionally life-threatening – difficulties (*2*); they may have a profound effect on the ability of individuals to communicate with others, on their education, on their ability to obtain and keep employment, and on social relationships and may lead to stigmatization (*3*).

A major challenge for many people with hearing loss, and for their families, is the general lack of awareness about issues relating to hearing loss in all parts of society.[1] Most children with hearing loss are born to hearing parents. There is thus a need to improve parental awareness regarding hearing loss and ways to communicate with their children, as well as to implement screening programmes that will facilitate early identification (*4*).

Recognizing the high prevalence of hearing loss, World Health Assembly (WHA) Resolution 48.9 acknowledged a general lack of human resources and of programmes to address ear diseases and hearing loss across the world (*5*). Many countries have neither the personnel trained in identification of hearing loss nor the equipment and facilities to deliver support services. In many countries, too, there is a severe shortage of staff, including audiologists, and of resources for hearing aid provision, support and aural rehabilitation programmes. In addition, ear and hearing care services are often outdated (*6*). It is estimated that there is only one ear, nose and throat (ENT) specialist per two million population in Africa generally, and none at all in some countries.

Hearing loss impacts not just the individual but the entire family and society generally. Any responses to the needs created by hearing loss will therefore be more effective in a community-based approach to this issue – that is, in community-based rehabilitation (CBR) programmes.

[1] Smith A. *Preventing deafness – an achievable challenge: the WHO perspective*. Presentation to International Federation of ORL Societies World Congress, Cairo 2002.

Integrating ear and hearing care into CBR programmes

Goal of integration

Integration of ear and hearing care into CBR programmes aims to establish or enhance universal and equal access to prevention, treatment, care, support programmes and services for those with, or at risk of, ear diseases and hearing loss.

The role of CBR specific to ear and hearing care

In terms of ear and hearing care, the role of CBR is to:

- advocate and campaign for ear and hearing health services at all levels of health care;
- facilitate access to ear and hearing health care services for all members of the community and promote the prevention of avoidable causes of hearing loss;
- create public awareness of all aspects of hearing loss;
- raise awareness in schools and within education systems of the need to include children and adults with hearing loss;
- promote and provide accessible communication for those with hearing loss;
- ensure that people with hearing loss receive the necessary attention at times of humanitarian crisis and that their needs are considered in all disaster preparedness initiatives;
- ensure that individuals with hearing loss have access to education and training programmes that may lead to employment;
- include people with hearing loss in the decision-making processes that affect their lives;
- encourage society to ensure that people with hearing loss are included in social groups and community events.

Desirable outcomes

A CBR programme should result in increased awareness within communities of healthy ear and hearing care practices as well as of the needs of people with hearing loss.

People with hearing loss should be able to:

- use their preferred means of communication at all times;
- access essential services and education/training programmes;
- obtain employment;
- be included in all aspects of community life;
- lead fulfilling social lives.

Relevant stakeholders[2] should:

- be able to communicate with people with hearing loss using the preferred mode of communication;
- have the knowledge and skills necessary to provide the services required for management of hearing loss;
- include people with hearing loss in all development sectors and decision-making;
- ensure that workplace policies and support services are in place to encourage and enable the employment of individuals with hearing loss.

[2] All individuals or organizations with an interest in, or needing to deal with, people with hearing loss.

Key concepts

Hearing loss and deafness (*7*)

A person who is unable to hear as well as someone with normal hearing is said to have a hearing loss. This hearing loss may be mild, moderate, severe or profound. It may affect one or both ears and may lead to difficulty in hearing conversational speech or loud sounds. See Table 1.

The term "hard of hearing" refers to people with hearing loss ranging from mild to profound, who mostly communicate through spoken language. Such people often benefit from hearing aids and cochlear implants.

The term "deaf" is used of people with profound hearing loss and implies that they have little or no functional hearing (*8*). Deaf people often use sign language for communication.

Table 1. WHO grades/levels of hearing loss (*9*)

Grade of hearing loss	Audiometric ISO value in the better ear (dBHLa)	Description	Recommendations
0 (no impairment)	25 or less	No or very slight hearing problems. Able to hear whispers	
1 (slight impairment)	26–40	Able to hear and repeat words spoken in normal voice at a distance of 1 metre	Counselling. Hearing aids may be needed.
2 (moderate impairment)	41–60	Able to hear and repeat words spoken in a raised voice at a distance of 1 metre	Hearing aids are usually recommended.
3 (severe impairment)	61–80	Able to hear some words when shouted into the better ear	Hearing aids needed. Lip reading/sign language to be taught.
4 (profound impairment, including deafness)	81 or above	Unable to hear and understand even shouted words	Hearing aids may help in understanding words. Additional rehabilitation required. Lip reading and sign language.

[a] The decibel (dB) is a unit for measuring intensity of sound on a logarithmic scale; dBHL means the decibel hearing level, as determined in an audiogram.

Common causes of hearing loss

There are many causes of deafness and hearing loss, including hereditary factors and congenital infections. Hearing loss can be the result of infections such as meningitis and otitis media, of exposure to excessive noise and of ageing; it can also be caused by the use of ototoxic medication or by exposure to ototoxic chemicals.

Chronic infections of the ear (e.g. chronic otitis media) are a major concern, especially in low- and middle-income countries. Chronic otitis media has a global prevalence that ranges from 1% to 46% (*3*); it is the leading cause of mild to moderate hearing loss among children (*2*) and may lead to life-threatening complications and even death.

Management of hearing loss varies depending on cause and degree. The modalities for management include medical and surgical management of those ear diseases that may have led to hearing loss. An important aspect of the management of hearing loss is improved communication for affected individuals through the use of hearing aids (where appropriate), the acquisition of lip-reading skills, and the provision of speech therapy, aural rehabilitation and other related support services. People who are unable to benefit from the use of hearing aids may learn to communicate through sign language, gestures, and written or printed text. The decision regarding the most suitable option for each person with hearing loss must be made individually, in consultation with the ear and hearing health provider. Consideration should be given to the community situation and resources (e.g. support and maintenance of hearing aids, effects of humidity and dust, distance to/cost of travelling to see a technician).

Common beliefs about ear diseases and hearing loss

- **Hearing loss is caused by bewitchment (*10*)**
  Many cultures have superstitious and/or cultural beliefs regarding hearing loss. Some believe that it is the result of impure blood or the curse of ancestral spirits. Parental and community education would be helpful in correcting these perceptions, removing the associated stigma and improving participation in screening programmes (*11*).
- **Home remedies are an effective cure for earache or ear infection (*12*)**
  A variety of home remedies – use of hot oil, plant extracts, salt water, etc. – are often used to treat earache. Such practices can be harmful. Raising awareness through health education is essential in this context.
- **People with hearing loss are unable to live independently and contribute to the running of the household**
  People with hearing loss are well able both to achieve independence and to contribute as equal members of society. Parents in India have been found to exhibit possessive behaviour towards their hearing-impaired children, which results in less independence. They restrict their children's activities, such as going to the market alone or visiting friends, because of their hearing loss (*13*). It is important to understand that people with hearing loss can do everything except hear normally (*14*).
- **Hearing loss and ear diseases cannot be cured**
  Many ear diseases that lead to hearing loss can be treated. In Uganda, it was found that 10.2% of children had disabling hearing loss; in 41% of cases, the hearing loss was due to correctable causes (*15*). At least 50% of all causes of hearing loss can be prevented (*16*).

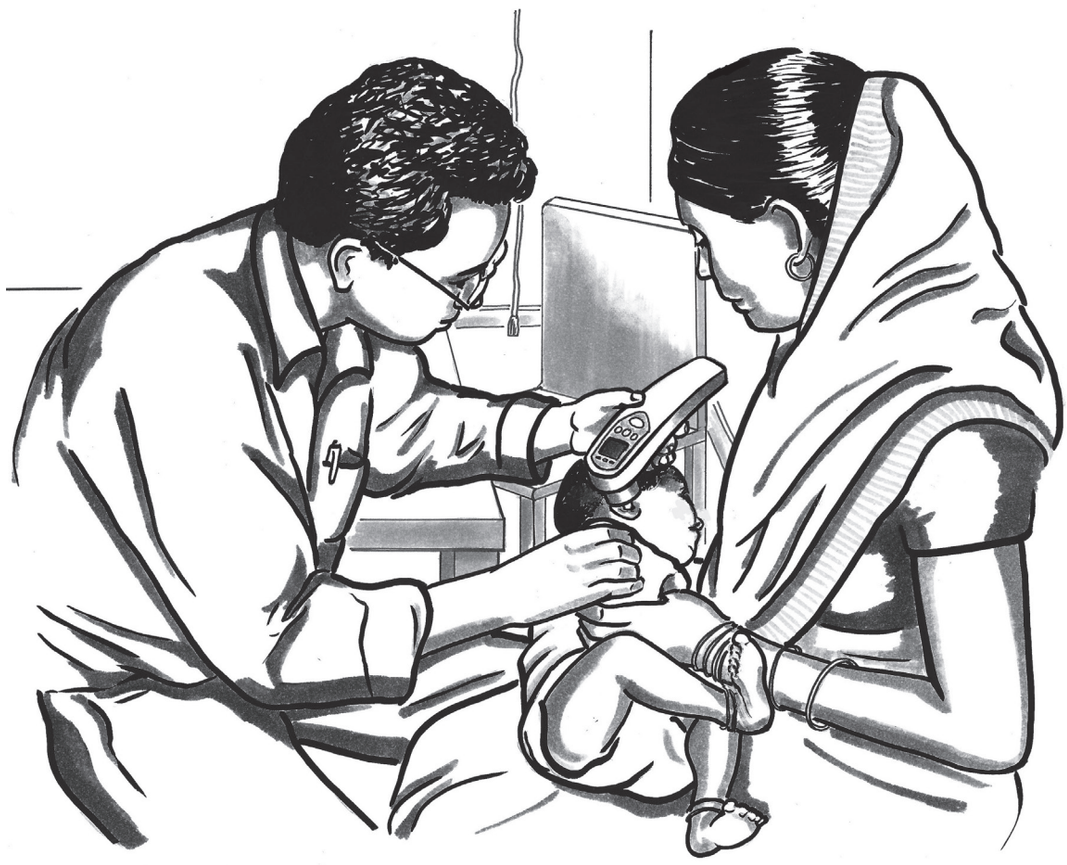
Impact of hearing loss

Hearing loss can have an impact on all aspects of life.

- **Functional**
  One of the main functional impacts of hearing loss is on the individual's ability to communicate with others. Spoken language development in severely or profoundly deaf children of hearing parents is typically delayed compared with that of their hearing counterparts (*17*). Hearing loss and ear diseases such as otitis media have a significantly adverse effect on the academic performance of children (*12*). Hearing loss in schoolchildren is reported to be linked to a variety of academic and adjustment problems (*18*). Children with hearing loss are sometimes considered to have lower IQs than their hearing counterparts, which may lead to rejection from schools; research has shown this presumption to be incorrect (*19*). Early detection and intervention are the most important factors in minimizing the impact of hearing loss on a child's development. Early identification of any level of hearing loss, coupled with appropriate management, has been clearly shown to lead to significant improvements in a child's social and educational achievements (*20*).

- **Economic**
  According to a 2007 World Bank report (*21*), unemployment rates in India are much higher than normal among people living with disabilities, including hearing loss. Recent data also show that a greater proportion of the deaf and hard of hearing population is unemployed compared with the hearing population. Moreover, among those who are employed, a higher percentage of people with hearing loss than of the general workforce are in the lower grades of employment (*22*). In addition to its effects on the individual, hearing loss has a substantial impact on social and economic development at community and country levels (*23*, *24*).

- **Social and emotional**
  For elderly people, impaired communication due to hearing loss can have a significant impact on everyday life, resulting in feelings of loneliness, isolation, frustration and dependence (*25*). This is rarely appreciated by people with normal hearing, who equate slowness in understanding the spoken word with mental inadequacy. As a consequence, older individuals may withdraw further, often remaining aloof in order to avoid being labelled as "slow" or "mentally inadequate" (*26*).



Specific issues related to hearing loss

Prevention and management of hearing loss

Primary prevention of the causes of hearing loss and ear disease can be achieved by means such as better antenatal and perinatal care, immunization, rational use of ototoxic drugs and hearing conservation programmes for prevention of noise-induced hearing loss.

Effective management by secondary prevention includes the early detection and treatment of ear diseases such as chronic otitis media.

Tertiary prevention refers to the management and rehabilitation of hearing loss and includes the provision of good-quality, appropriate hearing aids, essential support services, access to appropriate communication, improvements in the acoustic environment, special education and social integration at all levels.[3]

Provision of hearing aids and required support services

In low- and middle-income countries, it is estimated that only 3% of the actual need for hearing aid assistance is met. The main reasons for this shortfall include the high cost of hearing aids, the cost of batteries and the stigma associated with hearing loss (*27*).

Limited government resources often restrict the delivery of health care services for people with hearing loss. In addition, statistics show a global decline in grants and donations from the higher-income countries of the world to developing countries (*28*).

Screening for hearing loss

In 1995, the 48th World Health Assembly adopted a Resolution regarding the preparation and implementation of national programmes for early detection, prevention and control of major avoidable causes of hearing loss in babies and toddlers (*5*).

Such a programme must be approached as social change. Universal neonatal hearing screening is now regarded as an essential tool for the early detection of childhood

[3] Smith A. *Preventing deafness – an achievable challenge: the WHO perspective*. Presentation to International Federation of ORL Societies World Congress, Cairo 2002.

hearing impairment (*29*). Programmes for ear and hearing care should address the need for altered perception, beliefs and attitudes regarding hearing loss (*30*).

Sign language as a means of communication (*31*)

For deaf people, learning is typically a visual and gestural process. Most, but not all, have the capacity to learn to speak and to "read" speech (lip-read). For someone who has never heard clear speech, proficiency in speech requires intensive training. Sign languages, like spoken languages, differ across cultures, but they are legitimate languages, with their own vocabulary and grammar. Family members, medical professionals, teachers and employers should be encouraged to learn sign language in order to facilitate good communication with deaf people who rely on sign language.

Communication with people having deaf-blindness

The term "deaf-blindness" refers to the loss of varying degrees of sight and hearing. People with deaf-blindness face enormous difficulties in communication. Finger braille is a tactile method of communication and one of several methods used in communicating with people who are deaf-blind (*32*).

BOX 2 Mozambique

Learning to communicate

Rafael could not hear or speak. The traditional healer tried to cure him with her medicines. Finally she suggested that his problems were because the ancestors were angry with his mother.

When Rafael was 10 years old, the Government of Mozambique made a commitment to offer education to children with hearing loss. A trained Social Action Worker tested Rafael's hearing. He told Rafael's parents that he could hear only very loud sounds and advised them about educational opportunities for him. Under his guidance, Rafael soon started attending the primary school and learnt to communicate with his teachers in sign language. He met other children with hearing loss and made friends.

A year later, some workers visited the school and fitted Rafael with a "hearing machine". This was a hearing aid. Hearing the sounds that came from people's mouths was a new experience for him. It took him a few days to realize what his name sounded like.

Soon, Rafael learnt to listen, read lips and communicate through sign language. Today, Rafael is determined to teach other children with hearing loss.

BOX 3 India

Caring for your ears

Seema's teacher had become very annoyed with her. Seema often did not respond when the teacher called her name and could not answer the questions asked in class.

When the teacher participated in an awareness session carried out by a CBR worker in her community, she realized that Seema's problems might be caused by hearing loss. She questioned Seema about some causes of hearing loss and found that Seema had often had ear discharge since the age of 2 years.

Seema had always believed that the discharge coming from her ears was a natural phenomenon. At times her ears caused pain and her mother would pour some hot oil into them.

The teacher told Seema's mother to take her to the nearby health centre. Seema underwent some tests and some medicines were recommended. She was also told how to care for her ears and not to instill oil into them. The teacher had Seema sit in the front row of her classroom and made sure that she could understand what was being said.

Soon, Seema's grades improved and she became more responsive. She is waiting to have an operation on her ears, to improve her hearing.

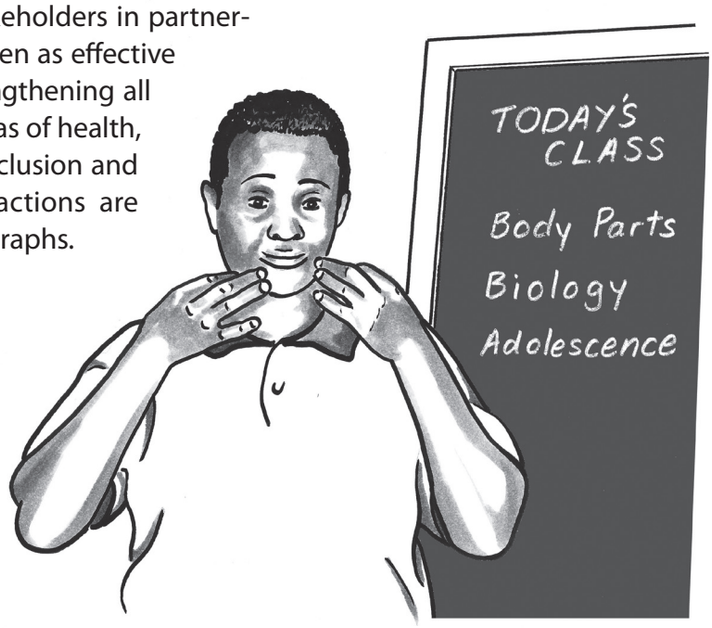
Integrating primary ear and hearing care and CBR programmes: suggested activities

Primary ear and hearing care requires specialists, grassroots health personnel, parents and community workers to join together in a working partnership at the community level. The aim of this partnership should be to intensify and localize the individual, social and political actions needed to deliver essential ear and hearing care services through CBR delivery systems. CBR services can be effective in reducing the negative impact of ear diseases and hearing loss.

Without this awareness and action, primary ear and hearing care will remain "programme-oriented" rather than "people-oriented".

The United Nations Convention on the Rights of Persons with Disabilities (*33*) was adopted on 13 December 2006 to uphold the rights of persons with disabilities. The main purpose of this convention is to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity".

Actions taken by multiple stakeholders in partnership at community level are seen as effective means of expanding and strengthening all rehabilitation efforts in the areas of health, education, livelihood, social inclusion and empowerment. Appropriate actions are outlined in the following paragraphs.



Actions for health

- Promote ear and hearing health by creating awareness: demonstrate that raising awareness in the community regarding all aspects of ear disease and hearing loss is essential. Community-based actions should include:
  - promoting and teaching healthy ear and hearing habits;
  - identifying the need for and means of early detection of hearing loss;
  - recognizing signs of hearing loss in infants, children and adults;
  - creating awareness of avoidable causes of hearing loss and ear disease;
  - managing common ear diseases and referring complicated cases;
  - providing and maintaining hearing aids, cochlear implants and other listening and signalling devices;
  - offering support services for hearing aids users, including ear-moulds and batteries.
- Carry out public health actions through promotion and implementation of immunization, maternal and perinatal health care, and child health care.
- Protect against excessive noise and improve the acoustic environment.
- Promote and enable identification of hearing loss in infants, children and adults. Refer cases of suspected hearing loss for hearing tests and ear check-ups.
- Advocate for appropriate ear and hearing services, including otological and audiological services, at health centres and hospitals as close to the community as possible.
- Promote the use of hearing aids and provide support services explaining the benefits and limitations of these devices
- Inform children and adults with hearing loss, family members and the general public of available options for the inclusion and integration of people with hearing loss in the community.

Actions for education

- Train all teachers in the community in aspects of primary ear and hearing care, the impact of hearing loss and provision of an effective learning environment for children with hearing loss. Encourage the inclusion of these topics in teacher education programmes.
- Ensure that the families of children with hearing loss understand the local policies relating to the education of such children.
- Educate teachers about the special needs of students with hearing loss, including deaf students.
- Create educational opportunities for children and students with hearing loss at pre-primary, primary, secondary and higher levels of education.
- Ensure the availability of non-formal and vocational training opportunities for people with hearing loss.
- Recruit and train people with hearing loss as teaching assistants and CBR workers.
- Develop sign language classes in schools and in the community.
- Develop and encourage training for speech and language development for persons with hearing loss.
- Engage the local deaf community in the implementation of these activities.
- Encourage and empower students with hearing loss who are seeking to undertake higher studies.

Actions for livelihood

- Advocate among employers and trade unions to promote the inclusion of people with hearing loss in the workplace and to ensure compliance with legal requirements (if legislation exists).
- Ensure that people with hearing loss and their families are aware of their rights and privileges with respect to employment.
- Ensure that people with hearing loss have access to social protection and are not discriminated against in the workplace.
- Promote the use of accessible means of communication, prioritizing those means (sign language, writing, speaking) that can easily be understood by all.

People with hearing loss must be aware of their rights. If it does not already exist, legislation should be enacted to ensure equal wages and opportunities for affected individuals, with provision for appropriate penalties to be imposed on employers who fail in this regard.

Actions for society

- Ensure that people with hearing loss are aware of their human rights.
- Ensure that people with hearing loss have full access in the learning and living environments.
- Help to ensure that people with hearing loss have access to all cultural, religious, recreational and other activities within the community. This can be achieved only through promotion of accessible forms of communication – including speech, sign language and visuals – for all people.
- Help to reduce discrimination against, and stigmatization of, people with hearing loss. This can be effectively accomplished by using local role models, including CBR workers and teaching assistants with hearing loss.
- Help to prevent psychological, physical and sexual abuse of children, adolescents and adults with hearing loss.
- Raise awareness among all members of society of the causes and nature of, and solutions for, hearing loss and of how to improve communication with people with hearing loss.

Actions for empowerment

- Encourage the formation of support groups for people with hearing loss and their families, including organizations of the deaf and hard of hearing. Involve people with hearing loss in those groups.

- Recruit adults and older children with hearing loss to assist with awareness campaigns and to help adults and children in the community who are affected by hearing loss.
- Encourage people with hearing loss to teach sign language classes and talk about deafness/hearing loss.
- Hire and train persons with hearing loss as CBR workers.
- Support both the establishment of organizations of people with disabilities and the commitment of those people to community-based structures.

BOX 4 Papua New Guinea

Learning and teaching sign language

When Joseph lost his hearing following a bout of meningitis, his father faced extreme difficulty in finding a school that could teach him. In 1994, when Papua New Guinea made inclusion a part of its special education policy, teachers were trained in various aspects of disability. One of the new graduate teachers took Joseph to the town's CBR centre. Joseph and his family received training in communication through sign language. The CBR worker also visited the family regularly and generated awareness within the community.

Joseph completed primary education with help from his teacher and the CBR worker but he did not achieve the grades necessary to go on to higher education. However, with his ability to communicate with deaf and hearing people alike, his open personality and social skills, Joseph's potential to be a teacher was recognized. He was trained in CBR and teaching sign language. Today, Joseph is now the main teacher of sign language in his country.

Actions at individual, family, community and political levels

- **The individual**
  CBR workers should encourage people with hearing loss to be advocates of their own cause. They should develop self-help and support groups and promote the participation of women with hearing loss in order to reduce discrimination against women with disabilities. This would facilitate the discussion of common problems and possible solutions. It would also allow them to develop a stronger voice, which can be heard within the community and by policy-makers.

  People with hearing loss must demand to be a part of all key decisions that affect them as individuals and within society.

- **The family**
  It is important that the family is sensitized to the communication and support needed by the family member with hearing loss, while addressing local beliefs and taking account of local culture. Support groups and CBR workers can play an important role in guiding parents through the process of identification and management of hearing

loss and subsequent rehabilitation, as well as raising awareness about the modalities of communication and education open to persons with hearing loss.

- **The community**
  Communities should be encouraged by CBR workers to promote, organize and participate in events that will help to raise awareness, such as a "Healthy Ear and Hearing Day" or a "Deaf Awareness Week", and in fund-raising activities. Lobbying with relevant stakeholders, including the local authorities, to provide schools and clinics in the community with the necessary equipment and resources is also important. This would help to fill gaps in the provision of medical, audiological and educational services to people with hearing loss and ear disease.

BOX 5 Cambodia

No word for "deaf"

After the long war in Cambodia ended, reconstruction of the society began. At the time, the World Federation of the Deaf (WFD) asked the national authorities about the situation of deaf people in the country and were surprised to be told that there were no deaf people in Cambodia. A WFD representative sent to investigate the situation through the Cambodian Disability People's Organization quickly realized that there was no word for "deaf" in the Khmer language. He was eventually able to bring together many people who were unable to hear and speak. Gradually, this group began to communicate through signs – and the Cambodian sign language was born. The group soon came to understand that "scribbles" on paper each had a meaning and were also a language. The previously uneducated deaf people started to teach each other. News of what was happening spread rapidly, and parents from far and near brought their deaf children to benefit from education. This marked the start of a new movement was started in Cambodia.

Health care and CBR workers

By raising awareness within the community, health care and CBR workers can play a pivotal role in improving medical, educational, livelihood and social outcomes for people living with hearing loss and coping with ear diseases. They can provide guidance on suitable medical, surgical and audiological management. They can advise the parents of children with hearing loss about the educational opportunities available for their children and create awareness of their children's rights.

CBR workers can also facilitate the training of teachers, enabling them to identify and refer children with possible hearing loss and ear diseases as well as to communicate effectively with people with hearing loss.

A leading role can also be played by CBR workers in advocating for the use of assistive devices such as hearing aids, explaining their benefits and ensuring their use.

The following are examples of specific actions that can be initiated by CBR workers:

- teaching teachers about hearing loss and encouraging them to include this in their teaching programmes;
- training nurses and traditional heath workers in basic ear management, including basic otoscopy, screening and referral of people with hearing loss;
- visiting schools, colleges and universities to talk with teachers, trainers and students about hearing impairment, its impact and its management; encouraging activities such as designing posters to raise awareness and playing "What can you hear?" games to identify children with hearing loss;
- organizing screening for hearing loss in schools;
- explaining how parents/carers could identify children with possible hearing loss;
- promoting awareness campaigns in the community and encouraging people who might have hearing loss to have their ears checked and their hearing tested;
- raising awareness in the community by speaking to social, religious and other groups and to local media about hearing loss, and promoting the use of sign language (with interpreters) in their meetings to assist people with hearing loss;
- being trained in sign language and facilitating the training of sign language interpreters;
- promoting the inclusion of people with hearing loss in the workplace, in education and in society;
- developing and promoting programmes and campaigns to prevent psychological, physical and sexual abuse of children, adolescents and adults with hearing loss; supporting protection programmes for vulnerable persons in institutions and communities;
- encouraging the formation of support groups for people with hearing loss and their families;

- recruiting and training adults and older children with hearing loss to become leaders of deaf awareness campaigns and to help deaf children in schools and in the community;
- raising awareness about healthy ear and hearing practices in the community and, in particular, sensitizing members of the community to the need for early identification and management of hearing loss.

Training of CBR workers

The *Primary ear and hearing care training resource* was developed by WHO to address the urgent need for capacity-building. Training manuals and other materials were developed for interactive and culturally appropriate training of both health workers and more experienced personnel working at primary level. The resource focuses on community involvement and raising awareness, and covers basic measures for prevention and management. A section on hearing aids is included for communities where there are no other trained personnel to help people use their devices effectively. Sign language instruction for CBR workers, especially in the local and national sign languages, is also vital to their performance of many of the activities.

BOX 6 India

Self-help for empowerment

Arun Kumar: "I am 15 years old. I can't hear anything from my right ear but I have some hearing in my left ear. I lost my hearing when I was very young. I tried going to school but it was not easy. I was often made to sit at the back and did not understand what was being said. My sister and my father taught me to read and write at home, so I passed the exams."

"Five years ago, Mohan, the CBR worker, came to our house. He told my father about an institute in Mysore. We went to the institute and I received a hearing aid that I use on my left ear. It has helped me to communicate better in the school."

"Mohan also told me that I can apply to get a disability certificate. As a result, I now get a monthly pension and I have a free bus pass for going to school. The pension is useful because I can buy batteries for my hearing aid."

"I am now a member of the self-help group in our village. My mother goes to the meetings as I don't have time because I have to study. I am saving money in the self-help group so that I can learn computers."

BOX 7 Nicaragua

Community level integration

The department of Chontales in Nicaragua started a primary ear and hearing care programme as part of the CBR strategy in the region. The activities included awareness-building exercises, training of health workers, coordination with health centres and hospitals, and contact with government authorities. Over the course of a year, 14 CBR promoters and facilitators, 13 community leaders, 3 primary-school teachers, 11 volunteers and 12 representatives of local organizations were trained in primary ear and hearing care.

Through the involvement of leaders, volunteers and community promoters, 220 people with hearing care needs were detected, referred and attended to at the regional hospital.

In 2012, the programme was scaled up and expanded to include other components. Parents, teachers and school students have been trained in sign language through a joint programme by the special education school and deaf people's association.

This programme provides an example of how ear and hearing care can be integrated into CBR programmes at the community level.

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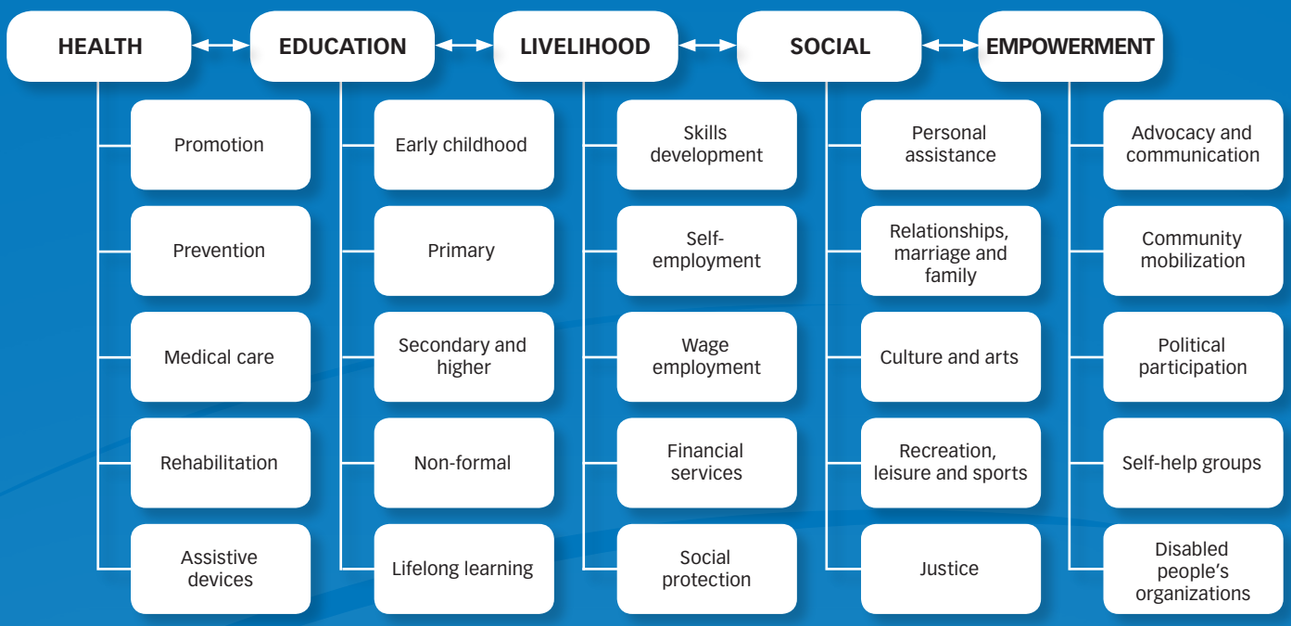

ISBN 978 92 4 150470 6

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