

# PRIMARY EAR AND HEARING CARE TRAINING RESOURCE

## BASIC LEVEL



Chronic Disease Prevention and Management

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## Foreword

World Health Organization estimates that there are about 250 million people in the world with disabling hearing loss. More than half of these people live in developing countries.

Many more people have mild hearing loss and many kinds of ear disease.

These problems can often cause life-long and sometimes life-threatening difficulties. People who are deaf or hard of hearing find it extremely difficult to communicate with other people. They also have difficulty in education and the workplace. Often they feel left out of social and family life.

In developing countries there are few programmes to prevent and treat ear diseases and help people with hearing loss, and few or no trained health workers to run them.

Some of the most effective ways of reducing the number of ear and hearing disorders are begun at the primary level by trained workers such as village health workers or Community-based rehabilitation (CBR) workers.

Primary Ear and Hearing Care Training Resource – Basic Level, is intended to address this urgent need.

This Basic training manual can be used for interactive and culturally appropriate training of village health workers, teachers, parents and other members of the community.

The resource focuses on community involvement and raising awareness, and covers basic measures for prevention and management.

It will be made freely available to projects and programmes that wish to conduct training in this field.

It is hoped that the resource will stimulate and enable greater priority to be given by developing countries to addressing ear and hearing disorders, and hence start to make a substantial reduction in their burden in the developing world.

The Primary Ear and Hearing Care Resources have been developed in order to facilitate training, at different levels, of Primary Ear and Hearing Care Workers in Developing countries.

The resource consists of:

- Primary Ear and Hearing Care Resource – Basic
- Primary Ear and Hearing Care Resource – Intermediate:
  - Trainer's Manual
  - Student's Workbook
- Primary Ear and Hearing Care Resource – Advanced

## Why was this resource developed?

The purpose of this basic level training resource is to assist with the training of primary ear and hearing workers in developing countries, especially focused on Village Health Care Workers.

The role of the village health care worker is vitally important for the prevention of ear and hearing disorders.

An important role for the trained village health care worker is to help the patient, family and community to understand common ear diseases and hearing loss. Through this training resource, the village health care worker will be taught when to refer the patient for treatment and support. This resource covers basic methods for prevention and recognition of common ear disease and hearing loss. It also shows that, with understanding and the necessary support, people with hearing loss can play productive roles in the household, school or in the work place.

The training resource helps students and trainers in the following ways:

- Contains the relevant knowledge and skills content
- Explains the need for ear hygiene
- Explains how to prevent common ear and hearing disorders
- Explains when to refer patients to the clinic or hospital
- Explains reasons for hearing impairment
- Explains how to encourage communication with hard of hearing and deaf people
- Explains the management and possible solutions available for the deaf and hard of hearing

The resource has clear and easily understandable pictures and can be used as a teaching aid. The students are encouraged to discuss the pictures and case studies to enhance their understanding of common ear diseases and hearing impairment.

## Who could use this information and training booklet?

This booklet has been produced to help children, parents, teachers and all members of the community understand more about ear and hearing loss health. Village health care workers can use it to obtain information on what to do about common ear diseases and hearing loss.

It is important that the community is able to prevent as much ear disease and hearing loss as possible. Everyone should learn what signs to look for and when to seek help.

At least half of ear disease and hearing loss could be prevented if everyone in the community is shown how to take care of their ears.

The village health care worker could explain the issues discussed in this booklet to the people in their community. The booklet could also be discussed and used in clinics, schools and local societies.

## How to use this training booklet

- Read through the booklet and make sure you understand each section
- Ask nurse/doctor to help you if you do not understand each section
- Practice making a dry mop so you are able to teach others how to make it safely
- Explain each section to the people you are training
- Show them the picture that explains what you are teaching them
- Hold the booklet up so everyone can see the pictures
- Ask the people what the picture is teaching them
- REMEMBER: If you cannot help the patient send them to the nearest clinic or hospital

## What can we learn about from this information and training booklet?

### ASK ABOUT EAR AND HEARING PROBLEMS!

#### Ear Disease

**Signs of ear disease and infection** – how do I know if my child has an ear infection?

**Treatment of ear disease** – what can be done to treat the ear infection?

**Deformities of the ear** – how does the deformity of the ear affect my child's hearing?

#### Ear infections and treatment

Ear infections need to be treated as soon as possible to prevent hearing loss and deafness

**Questions to ask:**

- Why does my child get ear infections?
- What can I do to prevent him/her getting ear infections?
- How can I keep his/her ears clean?
- What can I put in his/her ears?
- When should I take him/her to the clinic?
- Can I use traditional/herbal remedies?

#### Hearing and Speech

A child that cannot hear will not be able to speak

**Questions to ask:**

- Why can't I understand my child when he/she talks?
- Where can I take my child to get his/her hearing tested?
- How can I help my child understand what I say?
- Can I use signs to help him/her understand what I say?
- Why can't my child hear normally?
- Can my deaf/hard of hearing child go to school and learn?

#### Hearing loss and deafness

**Early detection** – how can I find out if my child is deaf or hard of hearing?

**Intervention** – what can be done?

**Rehabilitation** – how can my child learn to communicate if he/she is deaf or hard of hearing?

**NOTE: EAR DISEASE OR DEFORMITIES CAN CAUSE HEARING LOSS OR DEAFNESS**

**What are the five senses?**

**What do we use them for?**

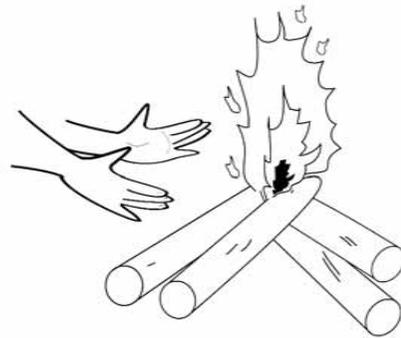
**Sense**

**Using this sense**

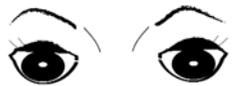
**What does this sense do?**



Touch



Our skin is sensitive to the touch.  
It helps us feel things like hot/cold, rough/smooth etc.



Sight



Our eyes enable us to see all the things around us like:  
people, animals, buildings, things in our home and where  
we work



Smell



Our nose enables us to smell things such as food cooking, fire burning, rain, polluted water



Hearing



Our ears let us to hear sounds around us such as a baby crying, people talking, dogs barking, a car horn, water running, music playing



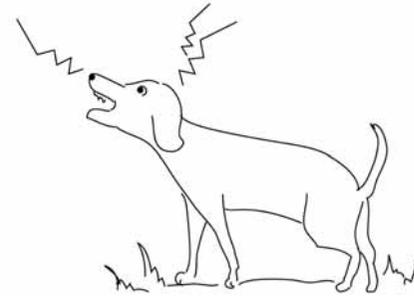
Taste



Our tongue enables us to taste if food and drink is sweet/sour, hot/cold, cooked/uncooked etc.

## Why do we need to take care of our ears?

We need to take care of our ears so that we can hear many sounds and people talking ... there are many sounds we hear every day ... some are soft and some are loud, some high and some low pitched.



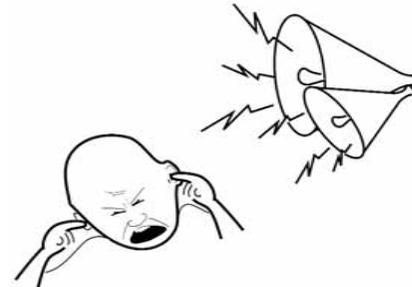
Sounds outside the home:

- rain, wind
- animal noises



Sounds that people make:

- talking
- singing
- laughing



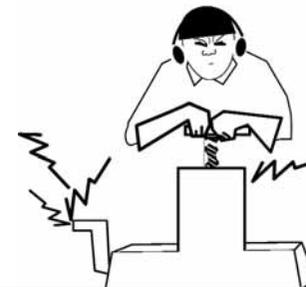
Sounds in the roads:

- cars, lorries, busses, taxis,
- horns/hooters



Sounds in the home:

- water boiling
- baby crying
- children calling



Sounds at work:

- farming
- factory
- shops, food shops,
- building/construction

## A Mother's story

My son John is 4years old. He likes to play in the river but the water is very dirty. People throw all their rubbish into it. They also do the washing in it, wash themselves in it, sometimes use it as a toilet and the animals walk and swim in the river too. John cries all the time because his ears are painful and there is pus coming out of them. I took him to the clinic today and the health worker looked in his ears. He has a bad infection and she gave him some medicine to help clear up this ear infection. She also showed me how to make a dry mop. I can mop up the discharge that is coming out of his ears.

She told me that children should never get dirty water in their ears because that causes ear infections. She explained that if they have many ear infections they might not be able to hear properly. I want John to go to school and then get a job. If he cannot hear properly he will find it difficult to hear what the teacher is saying and more difficult to get a job.

I will keep him out of the dirty water and take him to the clinic if I ever see any more pus coming out of his ears.



## How can we take care of our ears?

### Personal hygiene



DO NOT put dirty fingers in ears, wash hands before working with food and do not eat with dirty hands  
ALWAYS wash your hands after going to the toilet

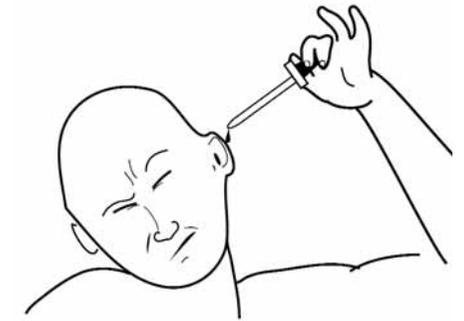


DO NOT swim or wash in dirty water

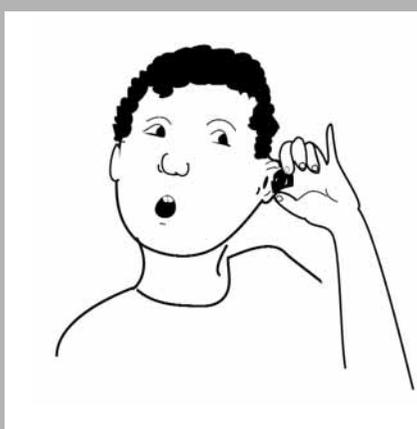


DO NOT put anything in your ears:

- hot or cold oil
- herbal remedies
- liquids such as kerosene



**NOTE: ONLY** use medicine given by the nurse or doctor at the clinic/hospital and take the correct dosage



**NOTE: Teach children NOT to put anything in their ears – seeds, beads, stones, sticks.**



If the ears are painful or have pus running out of them send the person to the clinic or hospital.

This means the ears are infected and need to be treated by the nurse or other health worker or doctor.

## What does hearing loss mean?

Hearing loss is when a person cannot hear well and so has a problem talking and hearing what people say.

The hearing loss could be mild through to severe. People with mild hearing loss will be able to communicate through speech.

Moderate hearing loss can make communication more difficult for people. They will not be able to hear well when there is a lot of background noise such as many people talking at once, or when there is loud music playing.

They would also need to be in good light and to look at the person who is speaking to them. This will help them lip read what is being said.

People with severe hearing loss may have some speech but may use lip-reading and signing to help them communicate.

We call these people deaf

## What happens if a baby is born hearing impaired?

A baby that is born deaf or hard of hearing cannot hear nearby sounds. He or she will not be able to hear people talking and so will not learn to speak.

If a mother notices any of the following with her baby, it may mean that her baby has a hearing problem.

### Age of baby

A few weeks old

(up to 6 months)

### How they should respond

Should show some sign of hearing sounds – open eyes, blink, look alert (like they are listening to the sound)

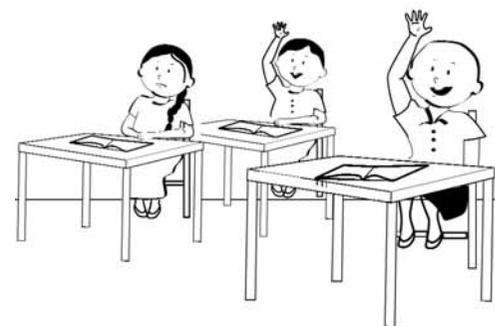
**CHECK:** If there is pus coming from the ears, her baby may have a severe ear infection. If so, he or she will need medication to clear up the infection and the mother should take the baby to the clinic or hospital to have the ears checked and hearing tested.

## What happens if a child cannot hear normally?

A child that cannot hear normally will not be able to speak clearly. This is because he/she cannot hear the words clearly that other people say.



The child in the picture cannot sing and dance well because he/she cannot hear the music and the other people singing



The hard of hearing child at school will not learn as quickly as the other children. This is because he/she will not be able to hear the teacher's voice and what the children talk about in the classroom.



If the child has some hearing then using signs as well as words helps her/him to learn lip-reading.

Many words will not be heard properly and using signs and lip reading helps her to understand what has been said.

If the child has a hearing problem and there is an ear infection then the ear infection should be treated by a health worker.

When the ear infection has healed, the child can be tested again to see if he/she still has difficulty hearing sounds normally.

Send the mother and child to the clinic or hospital to have the child's ears checked and tested.

## What happens if an adult cannot hear normally?



An adult who cannot hear normally will have difficulty communicating with other people. They can become very lonely and feel left out.



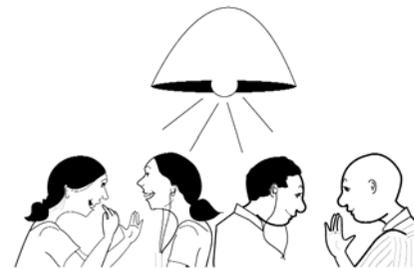
They may not have learnt to speak clearly because they cannot hear what other people are saying – they cannot hear the words properly and so they do not know to say them.



Deaf people communicating using signs to communicate

Someone with a hearing problem may not be able to learn at home, at school and in the workplace. This may prevent him/her from finding a job.

Deaf or hard of hearing people should be included in the life and activities of their family and their community. They can be taught useful skills and can become productive within their community.



Good light helps hard of hearing people lip read to help them communicate

Deaf and hard of hearing people should use signs to help them communicate. They should try to learn the local sign language

## Causes before or during birth

- Problems during pregnancy that interfere with the growth and development of the baby
- Sometimes difficulties at or soon after birth that damage baby's hearing



Good antenatal care should be provided and births should be supervised

- Premature birth
- During a difficult birth when the baby cannot get enough oxygen to breathe
- If parents were born deaf there is a risk their own children will be born deaf. Counselling may advise such parents about the risk of having deaf children.
- Rubella(German measles) during pregnancy is a risk because it damages the hearing organ in the inner ear. This can be prevented by making sure the mother was vaccinated as a girl or before she became pregnant. It should be part of a proper Rubella vaccination programme in the country.
- Syphilis in a mother is a risk for deafness in her baby. Pregnant women should be screened for syphilis and given treatment.
- Drugs, such as certain antibiotics, are a risk because they can damage hearing. They should not be taken during pregnancy unless prescribed by a doctor. These drugs are known as ototoxic drugs.
- Jaundiced babies should be referred for diagnosis and possible treatment.

## Causes after birth



### Childhood diseases

Measles  
Mumps  
Meningitis



**Drugs** that can damage hearing  
(ototoxic drugs)  
For example:  
Some antibiotics  
Some anti-malarial drugs

### Excessive Noise

Working with noisy machinery  
Loud music  
Gunfire, Explosions



### Ear infections

Infection can cause problems in the ear canal, the middle ear or the inner ear

### Glue ear

Glue ear is a common cause of hearing loss in children  
Glue ear can be treated at a clinic



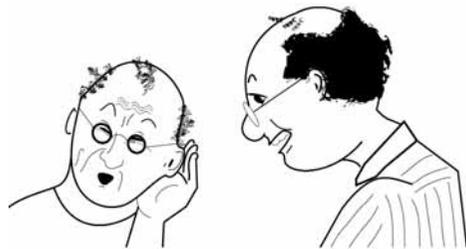


**Accidents**

Head injury or injury to the ear can cause hearing loss

**Symptoms to look for if a child has an ear infection**

- Child has a fever
- Child says they have a sore ear - earache
- Child has runny ear - pus coming out of ear
- The pus coming out of the ear is very smelly
- Child has a cold that does not get better. The child will have a runny nose, sore throat and a high temperature.



**Wax**

Wax blocking the ear canal can cause hearing loss at any age  
 Wax can be removed at a clinic

**VERY IMPORTANT:**  
**If the child has a cold with runny nose and/or ears and a fever they should be taken to the clinic to have their ears examined to check for infection.**

**If there is a discharge coming out of the ears the patient or parent can be taught how to mop it up to keep the ear canal clear. There are 2 ways to clean the ear.**

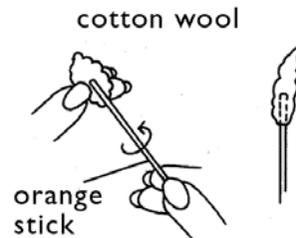
## Dry Mopping

- Only clean their ears with a dry mop when the ear is discharging.
- When the ear is dry it must not be cleaned with a dry mop.
- A dry mop is not the same as a “cotton bud”.
- “Cotton buds” must never be used to clean ear canals as they are too big and the cotton wool is wound onto the stick too tightly.

### How to make a dry mop

Materials: A thin wooden stick applicator and cotton wool

- Wash your hands with soap and water – air dry.
- Pull off a small piece of cotton wool.
- Gently pull it out into an oval shape.
- Put the tip of the stick into the center of the cotton wool.
- Twist the stick round and round with one hand whilst holding half of the cotton wool tightly against the stick with the thumb and index of your other hand.
- Half of the cotton wool should extend from the end of the stick and form a fluffy, soft tip.
- The rolled up piece of cotton wool should be long enough so that when the soft tip is deep in the ear canal and next to the eardrum there is still some cotton wool sticking out of the ear canal. This is so



that you can hold onto the cotton wool and ensure that the cotton wool comes out of the ear canal.

- After completing dry mopping, wash your hands again.

### How to make a wick

Materials: A small piece of absorbent cotton cloth OR a piece of soft strong tissue paper – NOT flimsy toilet paper that can fall apart in the ear.



- Make a wick by rolling the cloth or the tissue paper into a pointed shape.
- Gently pull the pinna away from the head. This helps straighten the ear canal.
- Place the wick into the ear canal. It will absorb any discharge or blood in the ear canal.
- Leave it in place until it is wet.
- Remove the wet wick and inspect it. Is there pus on the wick?
- Replace with a clean wick.
- Repeat until the wick stays dry.

Dry mopping is recommended to clean the ear canal in the clinic. Patients could be taught wicking to clean the ears at home because materials for dry mopping may not be available.

**REMEMBER:****Some ways in which hearing loss can be prevented:**

- Jaundice in a newborn baby can damage the hearing nerve. To prevent hearing loss, the baby should receive treatment.
- Vaccinations (as given in your country) can prevent childhood infections.
- Early treatment of ear infections can prevent damage to the middle ear.
- Some drugs, particularly some anti-biotics, may damage hearing. Only take drugs prescribed by a qualified Health Worker.
- The community should be informed about the harmful effects of loud noise.
- Cyclists and motorcyclists should always wear protective helmets

**EAR HYGIENE**

- DO only use medication in your ears that has been prescribed for you
- DO use clean towels to dry your ears
- DO NOT put anything into your ear
- DO NOT try to clean your ears with hairpins, toothpicks or anything else!
- DO NOT let any water go into your ears
- DO NOT leave cotton wool in your ears unless told to do so by a health worker

**ADVERTISE THESE MESSAGES TO YOUR COMMUNITY!****How can the family, community, school and workplace help people who are deaf or hearing impaired?**

Deaf and hard of hearing children and adults need to be included in all activities.  
DO NOT let them feel left out



## Deaf and hard of hearing people can do everything except hear normally!



Some ways people can help the children or adults who can't hear well are:

- Let the person see your face when you speak to them
- Make sure there is good light for the person to see your face
- Get the person's attention before you speak to them
- Try to make sure there are no distractions – especially loud noises
- Speak clearly and more slowly
- Don't shout and make exaggerated movements
- Repeat (say again and again) things many times slowly
- Use gestures, drawings, pictures – point at things
- Do not over protect the person – they should be encouraged to mix with other people
- Point to your lips so that they learn to watch how the words are formed – this encourages lip-reading
- Stand close to the person when you speak
- Stand in good light
- If the person has a hearing aid he/she should learn to use it

## **How you could raise awareness in the community and in schools?**

- Hard of hearing and deaf people should not be shut away in the home because they are believed to be 'stupid' and so cannot do anything.
- Make the community aware of how to help people with hearing loss.
- Encourage them to take the person to have their ears examined and tested.

## **Public awareness campaigns could create a better understanding of hearing loss and the disability that it causes:**

- Local clinics could display posters/pictures about hearing loss and ear care to raise awareness amongst patients.
- Communities should be encouraged to have a "Healthy Ear Day" to raise awareness in the community.
- Health workers could visit schools and talk to teachers and learners about hearing loss and its causes and effects. They should encourage activities such as designing posters to raise awareness and playing "What can you hear?" games to find out if any of the children may have a hearing loss.
- Tell teachers about hearing loss and encourage them to include this in their teaching programme
- Explain to teachers what to look for in children with hearing loss and refer children with possible hearing loss for treatment

- Encourage people with hearing loss to have their ears checked and their hearing tested
- Raise awareness in the community by speaking to social, religious and other groups about hearing loss.
- Encourage parents and teachers to use sign language with deaf and hard of hearing children
- Encourage the inclusion of hearing impaired people in the workplace, in education and in society
- Encourage and support hearing impaired people to form support groups for themselves and their families

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