



**Challenges faced by  
children who are Deaf  
or Hard of Hearing**

# Awareness regarding early diagnosis of deafness amongst doctors and parents



Challenges faced by children  
who are Deaf or Hard of Hearing



**Hearing loss or impairment is the most prevalent deficit amongst disorders of sensory organs.**

Out of **1000** neonates, at-least **5-6 infants** are born **with a hearing impairment.**

# Early detection of deafness

- Early and timely detection of deafness is extremely important as it can facilitate appropriate intervention and therapies for the deaf child from a young age.
- It also helps facilitate the child's development in terms of language acquisition and cognitive skill development.



# Universal New-born Hearing Screening (UNHS)

- The Central Government has implemented programs such as **NPPCD and RBSC Scheme** to ensure universal screening for hearing of new-borns at all medical setups.
- Sadly, **UNHS** is not practiced at many hospitals and clinics in rural (and even urban areas) are not equipped and sensitized to screen children when they are born, thus impacting early detection of deafness for children.





A faulty or delayed diagnosis results in loss of time for access to any forms of intervention.

**In the absence of UNHS a child with hearing impairment may go unnoticed until the age of 2 or more.**

By then, an irreversible damage is done which has long term implication on the social, educational and overall economic well-being of the child.

There is no substitute to Universal screening for hearing of new-borns .

National Programme for Prevention and Control of Deafness (NPPCD) ,12<sup>th</sup> Five Year Plan and Rashtriya Bal Swasthya Karyakram (RBSK) scheme are programs launched by the Government to enable early identification of cases of hearing impairment and their management . These are very well designed programs and if implemented well with desired outreach , we are confident that we will be able address the challenges associated with hearing loss and deafness more effectively.

**Dr V P Shah , Assistant Director and Audiologist , NIHH Delhi**



# NPPCD and RBSK Schemes

**NPPCD** places a structure of manpower support and aims at

- Strengthening the service delivery for ear care
- Developing human resource for ear care services
- Promoting public awareness
- Developing institutional capacity of the district hospitals, community and primary health centres.

**RBSK scheme** aims at early identification and early intervention for children from birth to 18 years to cover 4 Ds – Defects at birth, Deficiencies, Diseases and Developmental delays including disabilities.



**“Only 38.09%  
of all medical  
institutions in India  
carry out UNHS.”**

Global Journal of  
Otolaryngology

Success of **NCCPD and RBSK schemes** will depend on mass awareness , availability of skilled resources across geographies, and the checks and measures to ensure effective on-ground implementation.



My child was born in a small nursing home in our village in Jan 2018. It was only when he turned 6 months that we saw some signs and on getting his tests done, realized that he has profound deafness.

**Parent of a deaf infant, Haryana**

“Newborn hearing screening is performed in a few hospitals and private setups, on the basis of reference given by the paediatricians(only when parents approach them).Regrettably, recommendation for hearing screening is not provided to all the infants”.

**ENT Surgeon & Audiologist**

# Screening At-Risk Children

## Some indicators of the high-risk infants are:

- Mother infected with rubella during pregnancy,
- Parents with hearing impairment ,
- bacterial meningitis in the infant,
- Head injury.

## Nursing Homes and Testing Centres need to have :

- the understanding to identify infants at risk
- the knowledge and equipment's to perform the tests with precision.



**Screening all the infants, regardless of their falling in the high-risk category or not, is important.**

Many times a new-born may not test positive for hearing loss at the time of birth and it may manifest at a later stage. Since screening every normal-hearing infant every 3-6 months may not be feasible, infants who are at risk of developing hearing loss should be screened every 3 months for hearing. Further, if any infant fails a screening test, he/she should receive full audiological and ontological examination.

# This is Anshita's story...

**Anshita is 3 years old and born to deaf parents.**

During the pregnancy, her mother took injections to try and prevent her child from having a disability. Anshita's parents – Maheshwari and Raghav both they really wanted that their child be hearing and verbal. Six days after her birth, Anshita underwent a hearing test at the hospital where she had been born and she was certified to be hearing. The entire family was really happy to hear this.

At 6 months, Anshita's grand mother (a hearing person) noticed that Anshita was not responding to loud sounds such as bursting of crackers, the pressure cooker whistle, etc. Tests were repeated and at 9 months and deafness got confirmed. The doctor suggested Cochlear Implants and while the grand parents were keen to go ahead, Maheshwari was not. They started using hearing aids for Anshita and found her responding well. Despite her hearing loss, early intervention has enabled Anshita to improve her language and speech skills

Fortunately, due to the family history of disability, her grandmother was quick in identify hearing loss signs. Subsequently, a diagnosis was performed early and appropriate intervention was provided.

*In Anshita's case, it is difficult to say why the diagnosis did not happen at birth – was it because the tests were not performed properly or was it because hearing loss manifested gradually ?*

*Irrespective , the medical practitioners should have recognized her as a high risk infant and should have referred her for further checks at 3 and 6 months.*

# Some possible solution ideas:

1. An hospital-driven tool / app to flag off an intimate at-risk infants for follow-up visit till they move to "safe" zone.
2. **Parent awareness** and empowerment to demand
  - UNHS for their infants
3. A small **universal screening tool kit to help parents screen their children (for deafness)** right from birth. Early detection and understanding of appropriate intervention methods will help parents identify
  - challenges and follow the required development methods for their child. This can be in the form of an app or some reading material which can be ratified and shared with parents.
- 4.

# Some possible solution ideas:

- 3. Doctor sensitisation and training regarding UNHS.** UNHS to become part of medical education.
- 4. Implement 1-3-6 strategy used by USA-** i.e. the infant is screened within the first month of birth and if hearing impairment is present, diagnosis and rehabilitation measures are adopted before 3 months of age. Speech and language Intervention is initiated 6 months. Similar mandatory processes need to be adopted for India and implemented with the same rigor as schedule of some important vaccines

# Helpful Readings

- Infant Hearing Screening in India: Current Status and Way Forward  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4689099/>
- Is Awareness of Infant Hearing Screening in India Still in its Infancy? A Survey  
<https://juniperpublishers.com/gjo/pdf/GJO.MS.ID.556021.pdf>
- All India Institute of Speech and Hearing  
<http://www.aiishmysore.com/en/index.html>

