WORLD HEARING DAY REPORT

Ministry of Health and Family Welfare
Government of India

On the occasion of World Hearing Day 2020, a symposium for Public Awareness on Hearing was organized under the National Hearing Awareness Campaign. It was organized by National Programme for Prevention and Control of Deafness in Collaboration with Society for Sound Hearing and Indian Association of Epidemiologists. The theme for the day was "Don't Let Hearing Loss Limit You".

The program began with registration, a green welcome to the esteemed guests of the day, which was followed by lamp lighting. The lamp was light by Chief guest of the day Honourable Home Minister of State, Shri AshwiniChaubey, DGHS Dr. Rajiv Garg, Dr. Rajiv Garg, Dr. A K Agarwal Ex Dean MAMC and President of Sound Hearing 2030, DDG Deafness Dr. Anil Agarwal, Director Professor HAG Dr.SuneelaGarg National President IAPSM and Secretary General- Sound Hearing 2030, and Dr.JugalKishor. The participants in the event were from diverse Para Medical and non paramedical background and the number of participants were 40. The program was organised at Conference hall 1 of Civil Service Officers Institute, Vinay Marg, New Delhi on 3rd of March, 2020 from 10.00 hours to 13.00 hours.

Honourable Chief Guests during Lamp Lighting session

Dr Anil Kumar

According to National Sample Survey (NSS) 58th round (2002) hearing disability is the 2nd most common disability in India.Population-based surveys (2003) report that India is using the WHO protocol estimated the prevalence of hearing impairment to be 6.3%. In India, estimated number of persons with hearing impairment could be around 8 crores.

Need of NHAC

Hearing impairment is the second most common disability in India. More than 50% hearing loss is preventable in India.To prevent the hearing loss, awareness is the most important tool.If awareness is conducted in campaign mode through Panchayat and local bodies, it can be generated in short duration.Nationwide Gram Sabhas are being held today on 3rd March with the help of Panchayat &Village Health and Sanitation Committee.Activities in Urban areas with the support of NGOs, Local Bodies, Medical College etc. can be done, additionally and which can be activity monitored by District Nodal Officers.

Preparatory Steps for Implementation

Central-level workshop with State Nodal Officers, partners and experts can be held to achieve following goals.

- To chalk out detailed plan of activities
- Mobilization of resources
- Finalization of key IEC messages

In State-level meetings following plans can be made:

- Finalization of pamphlets
- To plan the supervision and monitoring strategies

In the District-level meeting with District Programme Manager and stakeholders following can be done:

- Micro-planning of 'National Hearing Awareness Campaign'
- Preparation of monitoring checklist

Preparatory Panchayat-level meeting with members of Panchayat Gao-Pradhan and representatives from villages

- Detailed activity plan will be shared with Panchayat

Below is the Institutional framework:

- State Co-ordination Committee
- State Hearing Awareness Media Committee
- District Coordination Committee
- Tehsil / Block Coordination Committee

Responsibilities of various level officers (1)

State Nodal Officer (SNO)has to coordinate with Central Division, State-level authorities and District-level authorities, to sensitize all District Programme Manager (DPM) and to disseminate various prototypes to districts

Responsibilities of various level officers (2)

District Nodal Officerhas to coordinate with State, District and Block level authorities, to sensitize all Block PHC Medical Officers (Block PHC MO), to disseminate various prototypes to blocks and planning and implementation of IEC activities in urban areas with help of NGOs, International Organisations, Rotary Club, Lion Club, etc.

Responsibilities of various level officers (3)

- Block PHC Medical Officers (Block PHC MO)will have responsibility of a nodal person who is accountable for celebration of NHAC as per the activities specified in the guidelines.

Coordination at village level

- Village Health and Sanitation Committee is responsible for implementation.
- The event may be facilitated by respective
  - ✓ Multi Purpose Workers (MPWs)
  - ✓ Village revenue official e.g., patwari
  - ✓ Gramsevik
  - ✓ School Teacher
  - ✓ ASHA
  - ✓ Anganwadi Worker etc

Following activities to be conducted at Gram Sabha on 3rd March:

(i) Message from District Magistrate (To be read by Gram Sabha Pramukh),
(ii) Appeal from Gram Sabha Pramukh,
(iii) Success story/ thought sharing by persons affected/ treated for hearing impairment, if available,
(iv) Questions and answers session based on FAQ provided,
(v) Vote of thanks.

These are some Activities in Urban Areas:

(i) With the support of Local Bodies, NGOs, International Organisation, Medical Colleges etc.,
(ii) In the form of Rallies, NukkadNatak, Public Awareness Meetings, CMEs etc.,

(iii)Organisation of Sensitisation cum Screening camps

Key messages for awareness generation

- Quantum of Problem in India,
- Prevention& Early Detection,
- Myths about ear care and community practices and
- Services Available under NPPCD.

Shri Ashwini Kumar Chaubey while addressing the audience highlighted few insights about creating awareness in every sections of the society. The Honourable Minister of State said any seminar or campaign will definitely help in enhancing the quality of information regarding hearing loss.

The campaign should be organized cross country to make people aware about hearing loss. Hearing loss can be caused due to illness and injury therefore there is a need to work on this. The department is trying to avail the technique and human resources for the treatment of haring loss. To enhance the quality inter-sectorial work is in progress to make campaign a success. The institute talked about various aspects of hearing loss and also discussed on the strategy to prevent hearing loss with the help of modern technique and competent human resource. The institute also mentioned the importance of different types of yoga and pranayama to prevent hearing loss, which is appreciable. Yoga and pranayama is free, which can help in preventing hearing loss. To enhance the quality and outreach of the campaign, research done by the institute plays vital role.

Nowadays it has become common to see mobile in children's hands. Whenever the child cries, parents give mobile phone to them and later the children get addicted which continue till grown up age. This scene has become very normal. Every parent should make one habit that they should not hand over mobile phone to their children. I feel that mobile phone is one of major reason for hearing loss. We should know that at what volume level one should listen music on the phone and many a times people keep their mobile phones near to their head while sleeping. Even though no phone call comes at that time but the radiation of the phone is present which could be harmful. The change in this regard needs to bring in oneself first then it will come to the community.

There should be screening to detect the early hearing loss, which can play vital role in prevention of hearing. You spoke about this also which is appreciable. Campaign for hearing loss at village level is a very important aspect of the campaign to reach grassroots level. All the campaigns at all the level should be reported to the ministry.

It is natural that elderly people with aging suffer from hearing loss but children are also suffering from this at very early age. Now a days the prenatal detection deafness kit has been given to every district hospitals which helps prenatal detection of deafness of the children so that doctor can minimize the hearing loss. However the kit should be given to primary hospitals, where women deliver the children. Every parliamentary should provide this kit for prenatal detection of deafness in their areas. Even though, due to availability of modest technology and medical college in urban area these technologies are available in urban areas but rural area is deprived from this privilege.

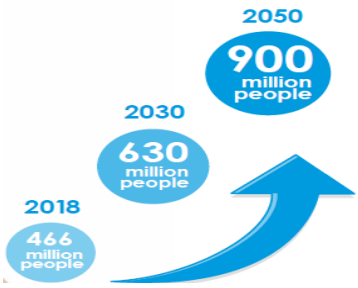
There is need to work on Panchayat level and the institute talked about this which is one step ahead in this direction.
From indigenous organizations and international organization, help should be requested to work in to generate awareness about hearing loss. Street play and different modes of awareness generation campaign through people's participation should be organized. Awareness generation program will not be helpful without people's participation. People's participation and people's co-operation should be our motto.

Ear check-up and testing camp should be organized at each strata of administration which should also work for awareness generation among people. On 3rd March, banner should be put at every place and check-up camp should be organized by the hospitals, so that people will be sensitised about the issues of hearing loss and at least once in a year they will get chance to avail ear check-up services. It should reach to the mass that 3rd of March is celebrated at World Hearing Day. It is necessary to make strategy to broaden the outreach of the awareness program.

Dr. SuneelaGarg

Role of Primary Ear Care in Preventing Hearing Impairment

There are more than 460 million people have disabling hearing loss globally.WHO estimates that unless action is taken to prevent and address hearing loss, the numberscould rise to over 900 million by 2050.



Burden of hearing loss in India

- Hearing impairment is a serious condition in India but it is grossly neglected. In India, 63 million people (6.3%) suffer from significant auditory loss. It is 60% preventable and 40% Non preventable and birth related causes of hearing loss is 17% and Infections is 31%.

Ear wax (15.9%), noninfectious causes: e.g.aging and presbycusis (10.3%), middle ear infections: CSOM(5.2%) and SOM (3%) and other causes: bilateral genetic and congenital deafness (0.2%) are the major causes of hearing loss and ear diseases in India as listed by WHO survey.

priority areas to prevent Hearing Impairment	Awareness strategies	IEC activities	Prevention Strategy
•Middle ear infections •Congenital deafness •Presbycusis •Noise Induced Hearing loss •Wax •Ototoxicity	•Celebration World Hearing Day on 3rd March, every year. •Audio and Video clips broadcasted through mass communication. •Posters and flip charts showing do and don'ts for ear and hearing care. •Screening and health education camps. •Training of parents and teachers	•Early Diagnosis and Rehabilitation •Noise Pollution Control •Ototoxic Drugs •Healthy Ear care habits •Rubella Immunization	•Good Maternal & Child Health practices. •Promotion of Institutional deliveries. •Strengthen the Immunization Programme, with inclusion of Rubella in the Immunization schedule.

IDENTIFY EARLY

Adopt a community based approach:

- Community based screening
- Screening of school children
- Training of primary level service providers in identification of hearing loss

Capacity building

- Interventions for Stakeholders
- Community Awareness
- Training of human resource

Raise awareness in community through frontline workers with following steps:

- CSOM can be prevented through good ear care.
- Cure of discharging ears is possible and feasible and needs urgent attention.
- Acute ear pain must be addressed effectively.

Training

- Done by Government of India.
- Enables all health care personnel regarding their specific roles.
- It enables health providers to provide leadership role in creating awareness
- It facilitates the development of suitable manpower, for hearing care services implementation.

Felicitating Dr.SuneelaGarg with Green plants

INTERVENTION STRATEGIES FOR STAKEHOLDERS

- *Individuals with disability*
  - Strategies to improve communication
  - (sign language and speech therapy)
  - Increase access to audiology services

- *Family, friends*
  - Develop support system to family members
  - Improve communication related quality of life

- *Policy makers*
  - Improve access to hearing health care to all

- *Community*
  - Training of ASHA/ health workers to recognize hearing loss
  - Advocate for increased use of assistive listening devices
  - Implement community campaign about solutions to living with hearing loss

- *Health Care Providers*
  - Training to medical staff in communication strategies(sprrch therapy and sign language)
  - Develop screening protocols for hearing loss
  - Conduct hearing tests
  - Create continuity of care in hearing health care
  - Recruit audiologists to provide fitting services

Prevention Strategy:

Early identification of Deafness and taking prompt measures to rehabilitate such children within the first year of life, so as to be able to make them a normal part of our society, noise is an important cause to be looked into andnoise is the nursery environment is a possible risk factor are some of the major prevention strategy.Guidance regarding surgical treatment at well equipped centers with a qualified ENT surgeon & Audiologist.

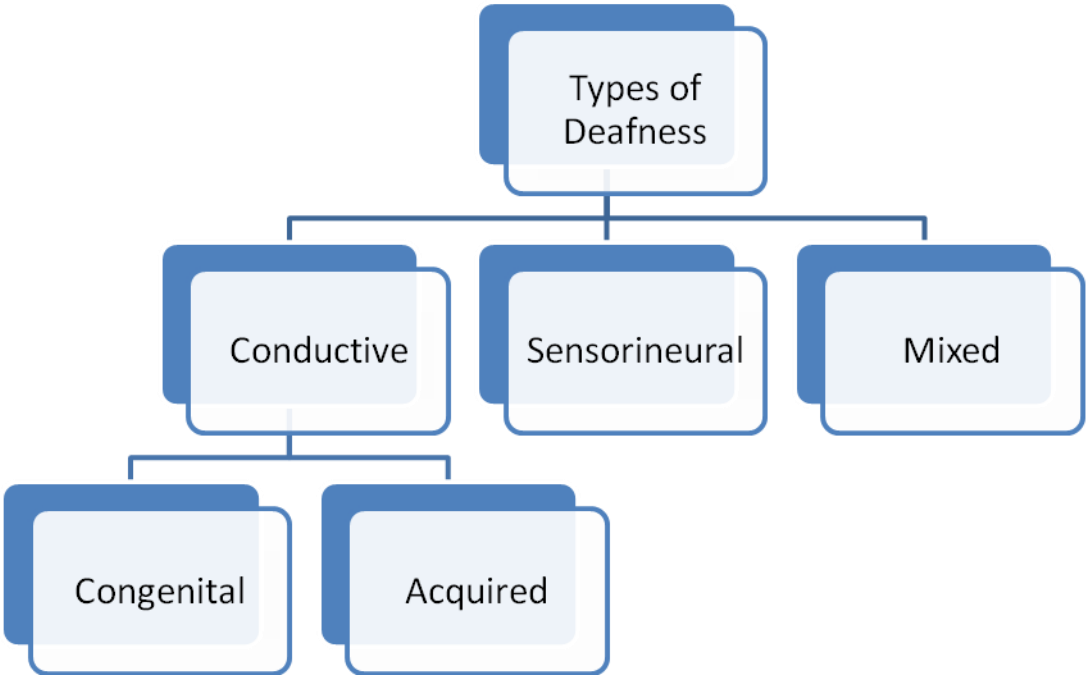
INTEGRATION: NEED OF THE HOUR

- Maternal and child health programs
- School health programs
- Occupational and environmental health
- TB, Malaria, HIV control programs
- Programs for elderly

- NPPCD

Dr. J. C. Passey

MANAGEMENT OF DEAFNESS



(a) Congenital causes

- Meatal atresia
- Ossicular anomalies
- Congenital cholesteatoma

(b) Acquired causes

- *External ear:* Any obstruction in the ear canal, e.g. wax, foreign body, acute inflammatory swelling, benign or malignant tumour or atresia of canal.
- *Middle ear:*
  (a) Perforation of tympanic membrane, traumatic or infective
  (b) Fluid in the middle ear, e.g. acute otitis media, serous otitis media or haemotympanum
  (c) Mass in middle ear, e.g. benign or malignant tumour
  (d) Disruption of ossicles, e.g. trauma to ossicular chain, chronic suppurative otitis media, cholesteatoma
  (e) Fixation of ossicles, e.g. otosclerosis, tympanosclerosis, adhesive otitis media
  (f) Eustachian tube blockage, e.g. retracted tympanic membrane, serous otitis media

2. Sensorineural hearing loss

(a) Congenital causes

Result of anomalies of inner ear or damage to the hearing apparatus by prenatal or perinatal factors

Prenatal	Perinatal
Infant factors : inner ear malformations- genetic/ nongenetic	Anoxia
eg:- scheibe's, alexander's, michel, mondini'sdysplasias etc.	Low birth weight
Maternal :	Prematurity
Infections- TORCHES	Birth injuries
Ototoxic Drugs	Neonatal jaundice
Radiation	Neonatal meningitis
Others- nutritional, diabetes etc.	Sepsis
	Ototoxic drugs
	Neonatal ICU admission

(b) Acquired causes

- Presbycusis
- Noise-induced
- Infections
- Trauma
- Ototoxic drugs
- Acoustic neuroma
- Familial progressive

COMMON CONDITIONS

- Chronic otitis media
- Otospongiosis
- Noise induced hearing loss
- Ototoxicity
- Congenital hearing loss

OTITIS MEDIA

- Asom
- CSOM is diagnosed when a permanent tympanic perforation is detected alongside middle ear mucositis with or without persistent otorrhea; the discharge should be present for a minimum of 2–6 weeks.

- History and examination
- Otoscopy (supplemented with pneumatic otoscopy)
- Tympanometry
- Audiogram
- Radiological imaging – XRAY, CT SCAN

Otitis media with effusion (OME)

- ***Medical:***Decongestants, antiallergics, antibiotics, middle ear aeration manoeuvres.

- ***Surgical:***For recurrent OM a 3 month follow up with serial audiometry and assessment of the degree of hearing loss is recommended with or without adenoidectomy and insertion of ventilatory tubes.

TYMPANOPLASTY:"Procedure to eradicate disease in the middle ear and to reconstruct hearing mechanism with or without tympanic membrane grafting."

Goals

- Achieve a dry ear.
- Hearing improvement.

OTOSCLEROSIS TREATMENT

- Hearing aid
- Medical treatment
- Surgical treatment

USES OF HEARING AID

- As a primary modality to treat mild CHL
- Along with stapes surgery in severe mixed hearing loss
- Post stapedectomy rehabilitation
- Rescue treatment for SNHL/CHL occurring several years after surgery

MEDICAL TREATMENT

Indications

- Active otosclerosis
- Surgically treated otosclerosis with progressive hearing loss
- Pure SNHL disproportional to age
- Radiologically demonstrated changes in cochlear capsule

MEDICAL MANAGEMENT

- Sodium fluoride: 50-75 mg /day/2years followed by 25 mg for life

CONTRAINDICATIONS

- Chronic nephritis
- Rheumatoid arthritis

- Pregnancy and lactation
- Children
- Skeletal fluorosis
- Allergy to fluoride

STAPES SURGERY

- Stapedectomy
- Stapedotomy
- STAMP (STApedotomy Minus Prosthesis) or Stapedioplasty

OTOTOXICITY

The tendency of certain therapeutic agents & other chemical substances to cause functional impairment & cellular degeneration of the tissues of the inner ear & especially of the end organs & neurons of the cochlear & vestibular divisions of the VIII cranial nerve".

Major systemic ototoxic substances

- Aminoglycosides
- Salicylates and nonsteroidal antiinflammatory drugs
- Loop Diuretics
- Platinum Compounds
- Iron chelating agents
- Macrolides
- High frequency Audiometry testing threshold above 8000Hz can detect early aminoglycoside and cispla
- OAE especially transient OAE's and distortion product OAE's (DPOAEs) tin ototoxicity.
- BERA
- Electronystagmography (ENG)
- Posturography

TREATMENT

- Early recognition & discontinuation of drugs
- Permanent hearing loss is treated with a hearing aid or a cochlear implant.
- Vestibular rehabilitation
- Management of tinnitus

NOISE INDUCED HEARING LOSS

Reduction in auditory acuity associated with noise exposure.

- Typical NIHL is of a sensorineural type
- Involves injury to the inner ear.
- Usually bilateral and symmetrical.
- Affects the higher frequencies (3k, 4k or 6k Hz) and then spreading to the lower frequencies (0.5k, 1k or 2k Hz).

Next to presbycusis, NIHL is the second most common cause of acquired hearing loss.

TYPES

- Temporary described as Temporary Threshold Shift (TTS), or
- Permanent described as Permanent Threshold Shift (PTS)

- Acoustic trauma where a single exposure to an intense sound leads to an immediate hearing loss

- Audiometry: Classical audiometric pattern is of a high-tone hearing loss with a notched appearance centred on 4 or 6 kHz, with some recovery at 8 kHz.

MANAGEMENT

- Early detection (annual audiograms)
- Use of ear protectors (ear plugs or ear muffs)
- Hearing aid

IMPLANTS

1) Baha
2) Middle ear implants
3) Cochlear implant
4) Auditory brainstem implant

BAHA CANDIDACY

- Patients with unilateral or bilateral conductive or mixed hearing loss within the manufacturer's fitting criteriaAND Stable BC thresholds (≤15 dB deterioration in >2 frequencies in a 2-year period) OR
- Unilateral sensorineural hearing impairment (including SSD) where the better ear has BC hearing thresholds within the manufacturer's fitting criteria including SSD
- The patient has trialled an ACHA or wireless CROS/ BiCROShearing aid for a minimum of 4 weeks, or is anatomically or physiologically unable to undertake a trial of an ACHA
- Has trialled a BCHD on a softband or headband for a minimum of 14 days and shown benefit in speech tests.

MIDDLE EAR IMPLANTS: Patients with high-frequency sensorineural or mixed hearing loss, in which amplification with conventional hearing aids – with or without stapedotomy – or bone-conduction implant (BCI) has failed.

CURRENT DEVICES

- Vibrant Soundbridge
- Direct Acoustic Cochlear Implant (DACI)
- Otologics Semi-implantable Middle Ear Transducer (MET) And Fully Implantable Carina
- Fully Implantable Envoy Esteem Device

COCHLEAR IMPLANT

- A cochlear implant should be considered for any person with a severe to profound hearing loss who does not gain adequate benefit from acoustic hearing aids.

- Severe to profound deafness is defined as the ability to hear only sounds louder than 90 dB HL at 2 kHz and 4 kHz without hearing aids.
- Hearing aids should be used for at least 3 months unless inappropriate or contraindicated.
- Adequate benefit with hearing aids is defined as:
- For adults, a score of 50% or greater on BamfordKowal–Bench sentence testing at a sound level of 70 dB SPL.
- For children, speech, language and listening skills appropriate to age, developmental stage and cognitive ability.
- Assessment should be by a multidisciplinary team and the tests used should be adapted to take into account the candidate's disabilities as well as their language and communication ability.
- Simultaneous bilateral CI is recommended for children and for adults who are blind or who have other disabilities that increase their reliance on auditory stimuli as a primary sensory mechanism for spatial awareness

POSTOPERATIVE REHABILITATION

- Makes sure that recipient can adequately use the information provided by the implant
- Better for postlingually deafened individuals with deafness of brief duration
- Specially trained speech language pathologists
- Parents

BILATERAL IMPLANTATION

- Benefit from 'head shadow effect'
- Better speech understanding especially in noise
- Significant sound localization

AUDITORY BRAIN STEM IMPLANT

- Main and first indication of ABI is NF2.

Emergent indications are:

- bilateral total ossified cochlea,
- vestibular schwannoma with controlateral lesions,
- cochlear nerve aplasia

The program ended with a thanks giving speech by Dr. SuneelaGarg addressing the importance of preventing hearing loss and taking precautionary measures from individual level to community level. Followed by the Question and Answer hour. The participants dispersed to their respective places after the lunch program.


IAE
Indian Association of Epidemiologists
(Regd. No. S/ 25118 of 1993)
About IAE
Objectives
Membership Eligibility Criteria
Activities of the Association
National Programme for Prevention and Control of Deafness
Objectives
• To prevent the avoidable hearing loss.
• Early identification, diagnosis and treatment.
• To medically rehabilitate persons with deafness.
• To strengthen the existing inter-sectoral linkages.
• To develop institutional capacity for ear care services.
Strategies
• To strengthen the service delivery.
• To develop human resource.
• To promote public awareness.
• To develop institutional capacity of the district hospitals, CHCs and PHCs.
Programme status:
• The program is being implemented in 558 districts.


IAE
Symposium for Public Awareness on Hearing
03 March, 2020

GLIMPSE OF 3RD MARCH 2020 ON THE OCCASION OF "WORLD HEARING DAY"

Distinguished guests during the welcome session

Lamp Lighting session

Honurable Minister of State Shri Ashwini Kumar Choubeyji addressing the audience

Dr. A K Agarwal lighting the lamp

DR. Anil Kumar felicitating Dr. Achal Gulati

Group photo on the occasion of World Hearing Day