

REPORT

Meeting

WHO ad hoc consultation on primary ear and hearing care training manual revision held on 2nd July 2018

World Health Organization (WHO) ad hoc consultation on primary ear and hearing care training manual revision meeting was held on 2nd July 2018. Recap and update on training resource revision was discussed by Dr. Shelly Chadha, Technical Officer, Prevention of Deafness and Hearing Loss, WHO, Geneva. Mahmood Bhutta, ENT Surgeon, Brighton & Sussex University Hospitals, Brighton, UK discussed ‘An evidence framework for delivering EHC in resource limited settings’. Priya Carling, Director and Consultant Audiologist, Kent Hearing Ltd, West Malling, UK stressed on the ‘Basic level manual: purpose, structure and contents’. Following this there was Group work on basic level manual, presentation of group work followed by discussion. ‘Intermediate level manual: purpose, structure and contents’ were discussed by Mahmood Bhutta. ‘The Update on audiology sections’ was given by Linda Hood, Hearing Scientist, Vanderbilt University Tennessee, USA.

Dr. Suneela Garg, Director Professor & Head Community Medicine, Maulana Azad Medical College, New Delhi, India who is a member of the Honorary Board of Director Sound Hearing 2030 International, an Honorary Advisor to CBM for Prevention & Control of Deafness in South East Asia and has been involved in developing strategy for Deafness Control for the Government of India stressed on the requirement of preparing ear and hearing care modules which focus on skill development. She also commented on the need of developing trainer’s manual and facilitator’s manual separately. Finally, ‘Group work on intermediate level manual’, presentation and discussion were carried out.

The outcome of the meeting was that there is still a requirement of modifying the ear and hearing care modules of Primary and Intermediate Level and bringing out new modules with changes incorporated.

Meeting 2

3rd Stakeholders’ Meeting for the WHO Programme on Prevention of Deafness and Hearing Loss held on 3rd -4th July 2018, WHO Headquarters, Geneva, Switzerland

Background and rationale

WHO organized the Stakeholders’ meetings for its programme on prevention of deafness and hearing loss on 3-4 July 2018 at WHO Headquarters, Geneva, Switzerland. The meeting provided WHO an opportunity to share its work in the field of ear and hearing care as well as the World Health Assembly (WHA) resolution on prevention of deafness and hearing loss (WHA 70.13). The meeting served to improve the understanding of global needs and perspectives of different stakeholders and helped to define a shared vision for global action on hearing loss with the aim to promote implementation of the WHA resolution in order to make ear and hearing care accessible to all people across the world.

During the meeting it was concluded that promotion of World Hearing Day and development of a world report are important steps in this direction. The possibility of setting up a global alliance for hearing was also agreed to.

Main objectives

- a) To review actions initiated/undertaken by WHO, its partners and Member States for implementation of WHA 70.13
- b) Share case-studies/examples that showcase the implementation of WHA 70.13
- c) Launch World Forum on Hearing
- d) Plan theme and activities for World Hearing Day 2019
- e) Explore possibilities for resource mobilization

Participants

In order to have representation of all sectors, participants from member States, key professionals involved in development and monitoring of national strategies including otolaryngologists, audiologists, public health experts from across 6 WHO regions, representatives of international and leading regional professional organizations, INGOs involved in ear and hearing care, civil society groups, WHO collaborating centers in ear and hearing care, UN agencies, bilateral organizations, industry associations, research institutions, researchers and editors of scientific journals, health communication experts, regional advisers for ear and hearing care, WHO Representative and Head of Country Office involved in ear and hearing care strategies, and other WHO departments participated in the meeting. The list of participants who attended the meeting has been attached as Annexure.

Agenda of the meeting

The introductory address and opening remarks for the meeting were given Dr Etienne Krug, Director NVI, WHO. Shelly Chadha, WHO spoke on the 'WHA resolution on prevention of deafness and hearing loss: one year down- WHO actions'. In the session on "WHA resolution- making a difference at country level", the topic on 'regional level actions to support global policies' was covered by Juan Carlos Silva, WHO PAHO and 'Translating global policies to country level action' by Maryam Mallick, WHO Pakistan. A video presentation was made from India on 'Policy implementation benefits people' Coordinated by Dr Arun Agarwal President Sound Hearing 2030. Alarcos Cieza, WHO deliberated on 'Making hearing a public health priority'. Lunchtime seminar on 'Country actions to address hearing loss' was addressed by Salle C. Group work on 'Global campaign for prioritization of hearing care' was introduced by Karen Reyes, WHO and the same was presented and discussed. The key questions discussed in the Global campaign for prioritization of hearing care - Group work included- 'What activities can be undertaken as part of the global advocacy initiative?', 'What should the initiative be called?' and 'How will the initiative be promoted?' Introduction and outline to the session on 'World Hearing Forum' was given by Shelly Chadha, WHO.

On day 2 (4th July 2018), the session on 'Review and preview' was chaired by Alarcos Cieza, WHO. Karen Reyes, WHO presented on 'World Hearing Day: recap and ideas for strengthening'. The session on 'Collaborative actions for hearing care' included panel discussion on 'Ear and hearing in the context of WHO strategies'. The structure and preparation of 'World Report on Hearing' was given by Shelly Chadha, WHO. The session was concluded by discussing the next steps.

World Hearing Forum : Background

Approximately 466 million people live with disabling hearing loss that affects the quality of their lives and it is expected that these numbers will rise considerably in coming decades, unless action is taken to prevent and address hearing loss. Hearing care and hearing loss as a public health issue were highlighted at the WHA in 2017, when Member States adopted a resolution (WHA70.13) on prevention of deafness and hearing loss. This resolution recognizes the need for urgent global action and calls for multi-stakeholder action in the field of ear and hearing care.

In response to this, WHO has proposed the World Hearing Forum, which fills a critical gap by bringing a common vision to strengthen advocacy and collaboration efforts in this field.

Vision: A world in which no person experiences hearing loss due to preventable causes and those with hearing loss can achieve their full potential through rehabilitation, education and empowerment.

Mission/purpose: To advocate for ear and hearing care at global, regional, national and local levels. The Forum will be a powerful voice and will drive a global initiative to galvanize advocacy efforts for the development and implementation of ear and hearing care through collaboration, networking and knowledge-sharing. Participation in the World Hearing Forum will be open for DPOs and user groups, NGOs, development organizations, journals and academic institutions, WHO collaborating centres, organizations in official relations with WHO, corporates, regional fora, professional societies, and UN. Terms of reference for membership will be determined by WHO, in consultation with a nominated foundation committee.

Possible Activities of World Hearing Forum

1. Advocacy

- Drive the global initiative for ear and hearing care, in line with WHO's priorities.
- Develop global and regional coordination mechanism for promoting World Hearing Day.
- Advocacy workshops/events for general public and EHC professionals.
- Organization of events in EHC, public health/health policy related conferences/fora.

2. Networking

- Organize a regular World Congress on EHC in different regions across the world.
- Promote regional and multi-country EHC networks for sharing experiences and practices.
- Create network for knowledge-sharing and fostering opportunities for collaboration.
- Promote partnerships across stakeholders for cohesive and strong action on EHC

Outcomes

The outcomes of the meeting were:-

- a) To determine strategies for further implementation of the WHA resolution.
- b) Promote greater engagement among all stakeholders.
- c) Sensitization of the issue of EHC with UN General assembly.
- d) Establishing strategies in Universal Health coverage in different countries.

Meeting on 'World Report on Hearing' held on 5th July 2018

World Report on Hearing (WRH) meeting was held on 5th July 2018. The structure and outline of the WRH was given by Dr. Shelly Chadha. Karen Reyes stressed on the 'Information requirements, process and timelines'. Catherine McMahon, Professor of Audiology, Macquarie University, Balmain, Australia focused on the 'Scoping reviews and next steps'. 'Developing a framework for ear and hearing care priorities: introduction and group work' was given by Alarcos Cieza. This was followed by the presentation of group work and discussion. Stakeholders analysis was covered by Karen Reyes following which there was reflection and discussion on stakeholder analysis and next steps were discussed.

World Report on Hearing

Introduction

The need for ear and hearing and its definition was introduced. The rationale for the World Report, with reference to the WHA resolution and need for prioritization of hearing care was introduced. It mentioned the purpose of the report and its potential use.

1. Defining the issue: hearing across the life-course

Key message: Communication is an integral aspect of human development and experience across the life-course

Key statistics: Cost of unaddressed hearing loss

Rationale:

Hearing loss is a public health issue and access to communication (and hearing) is essential for wellbeing across the lifespan. Factors that affect hearing and impact of unaddressed hearing loss were discussed.

Content:

- a. Importance of hearing and communication at every stage of life: cognition; education; framing within the SDG context
- b. Factors that can impact hearing across the life course (all causes- include meta-analysis on prevalence of COM; occurrence of occupational NIHL; occurrence of ototoxicity) including how some factors would predispose to early onset of hearing loss.
- c. Impact of unaddressed hearing loss (linking with points raised in a but also going beyond the individual):
 - a. Impact on individual: development; education; cognition; relevance of communication to brain health, development and social connection
 - b. DALYs and QALYs: there was a requirement of checking the available data.
 - c. Impact on caregivers/family members
 - d. Impact on society and economy
- d. Boxes on what hearing loss means; diversity in hearing loss- explained in practical non-medical terms; table on impact; box on tinnitus; UNCRPD and importance of fixing the environment to be accessible for all people
- e. Real life examples and success stories

2. Solutions are available: hearing loss can be addressed

Key message: There are available solutions to prevent hearing loss impact of mitigation in all people

Rationale: The section focussed on the advances that have been made in the field of hearing care and highlighted that this is one of the most developed fields in terms of effective interventions, for prevention of hearing loss as well as for early identification and rehab. Availability of these options for everyone irrespective of their hearing status and preference was stressed upon.

Contents

- a. Promotion and prevention:
 - i. Health promotion
 - ii. Immunization,
 - iii. Maternal and child care practices,
 - iv. Noise reduction (occupational and nonoccupational),
 - v. Ototoxicity
- b. Importance and means of intervention
 - i. Means for early identification (including focus on available technology that allows one to suspect hearing loss on the day of birth; identify hearing loss sitting in one's home/office; otoscopes etc)
 - ii. Medical and surgical management of causes
 - iii. Hearing devices: hearing aids, cochlear implants, others (technological solutions, advances and new research relevant for future)
 - iv. Sign language and means for communication (captioning)
 - v. Personal treatment choices
- c. Boxes: methods/tech for screening; tech for rehab: CIs, HAs; modifications to the built/environment; box/flowchart on how hearing loss can be identified
- d. Examples of current actions/practices

3. Meeting the challenges:

Key message: Challenges in the field were addressed

Key stats: % of people do not have access to required services or % of people requiring hearing aids have access to them or % can access sign language education/services

Rationale:

The chapter framed the issues faced in the field, but from the perspective of how these can be addressed.

Contents

- a. Outlining the statistics: numbers of people with hearing loss and projections for future: to depict the size of the issue; correlating the available data with respect to income level/GDP of country; literacy levels and other parameters
- b. Increasing knowledge/awareness/reduce stigma (addressing the barrier of awareness) among policymakers, professionals, society at large

- c. Developing human resources and stressing the need to develop human resources in the field, sensitizing professional to public health aspects of hearing care; including new service delivery models and health worker training; role of support providers
- d. Policies and innovations with solutions such as national plan; procurement policies, delinking services and devices; public/private partnerships. This part would also focus on the challenge of cost (of devices, technology and services) and how some innovative solutions could be used to address this challenge.
- e. Strengthening research in the field including public health and medical research: epidemiological data, public health research, research on technology. Identify focus areas for public health research (needs and gaps)
- f. Improve monitoring and evaluation
- g. Boxes with areas of public health research needs; importance of sign language; human resource for hearing care; world hearing day as an advocacy initiative
- h. Real-life examples/explanations of overcoming the different challenges; eg overcoming stigma-mental health; human resource-Malawi; procurement policies; delinking services-US; example of a financially sustainable model; examples of regional/ multi/national collaborative initiatives to build harness political will and build momentum (eg Sound Hearing 2030)

4. **Designing the way forward: *the vision of hearing care/healthy hearing framework***

Key messages: Actions required for improving access to ear and hearing

Key statistics: Return on investment; cost-benefit of specific interventions.

Rationale

This section would provide concrete steps which need to be taken for EHC to be provided in countries as part of universal health Coverage and within the health systems framework. It identified those priority interventions/best buys that can be most effective and impactful. It also quantified what the return on investment in EHC (or in specific interventions) can be.

Contents:

- a. To Elaborate term ear and hearing care
- b. Priority interventions/best buys: a list of top interventions that should be implemented to promote access to ear and hearing care, methodology and criteria need to be identified by internal consultations and Guidelines Review Committee guidance. Best buys that will have the most impact and the development process were outlined. The set of interventions with an acronym or name associated were discussed.
- c. Return on investment in ear and hearing care/specific interventions to be looked into.
- d. Recommendations for action eg Implement universal newborn Screening ie; list of activities to be undertaken with the possibility of suggesting one indicator that can be included in the country's hearing Screening Programmes
- e. Boxes on Key Issues and success stories
- f. Infographs to be incorporated

Outcomes

1. The contents of the World Hearing Report and its chapters were discussed.
2. It was decided to include examples and human-interest stories in each section as relevant and CBM to provide some success stories

Feasible Actions at CBM SEARO Office which can be facilitated by SH2030

1. Finalizing Primary Ear Care Module for Primary Ear Care Workers

There is an ever increasing immense ENT disease burden and scarce existing ENT manpower to tackle the same. The role of skill based primary ear-care worker hence becomes vital for delivering essential ear and hearing care services. A skilled primary ear care worker can play a significant role right from early identification of people with hearing loss to awareness generation, screening of patients to making adequate referrals.

The role of these skilled Primary Ear Care workers will be:

- Promotion of ear and hearing health by creating awareness through community-based actions including:
 - 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 signaling devices;
 - Offering support services for hearing aids users.
- Carry out public health actions through promotion and implementation of immunization, maternal and perinatal health care, and child health care.
- Protection against excessive noise and improve the acoustic environment.
- Promotion and enable identification of hearing loss in infants, children and adults. Refer cases of suspected hearing loss for hearing tests and ear check-ups.
- Advocacy for appropriate ear and hearing services, including otological and audiological services, at health centres and hospitals as close to the community as possible.
- Promoting the use of hearing aids and provide support services explaining the benefits and limitations of these devices.
- Informing 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.
- 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.
- 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 preprimary, primary, secondary and higher levels of education.
- Ensure the availability of non-formal and vocational training opportunities for people with hearing loss.

- 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.
- Basic examination to screen and recognize patients with common ear diseases (wax, simple foreign body removal, discharging ear etc.) and counsel & refer patients requiring further medical/ surgical care.
- Undertake teleology project for screening patients using a handheld mobile device and transfer the images for diagnosis by ENT specialist.

These skilled Primary Ear Care Workers needs to be trained through Primary Ear Care Modules and the roles/responsibilities of these workers needs to be incorporated in the modules. Training of Primary Ear Care Workers through modules will be help in standardizing the training and will help the workers to deliver essential ear and hearing care services.

2. Organizing Stakeholders Meeting of SEAR Region in India

Stakeholders Meeting of SEAR Region in India can be organized in Maulana Azad Medical College, New Delhi, India in collaboration with WHO, Ministry of Health and Family Welfare (MOHFW) with technical support from Sound Hearing 2030 with the aim to provide accessible and sustainable hearing care for all in South East Asia Region. The stakeholders meeting will help in sensitizing the stakeholders towards:-

- Primary Ear & Hearing Care and its Operationalization
- Operationalization of Primary Ear & Hearing care in SEAR and Indian Context
- Identification of Barriers and Challenges for prevention of hearing loss and deafness and promotion of healthy ear strategies
- Development of Road Map for Strategic Implementation

3. Sharing Agenda of World Health Assembly: CBM and SH2030 to share the agenda of World Health Assembly:

- Accessibility
 - Improve accessibility through affordable, cost-effective, high quality, assistive hearing technologies and products.
 - Emphasize the importance of ensuring universal access to prevention and care.
 - Integration of strategies for ear and hearing care within the primary health care systems' framework.
- Prevention
 - Prevention and screening programmes for high risk populations.
 - Highest possible coverage of vaccination against Rubella, Measles, Mumps and Meningitis.
 - Development and implementation of regulations for control of noise in occupational settings

- Capacity Building
 - Provide support to countries to help them reduce hearing loss, including that caused by exposure to noise.
 - Collection of high-quality population based data for evidence-based planning and policies
 - Training of human resources in the field of ear & hearing care
- Improved access to Communication
 - Through promotion of alternative methods such as sign language, captioning

4. List out actions required for improving access to ear and hearing Care

- Generate Scientific evidence
- Technical support to member states
- Improved collaboration between stakeholders
- Advocacy by celebrating World Hearing Day on 3rd March
- Feedback regarding progress on implementation

5. Prepare innovative IEC including Videos

- Information, Education and Communication(IEC) acts as an interface between general population and health services and spreading awareness is one of the essential components in any programme of social change and focuses on raising awareness, increasing knowledge, shaping attitudes, and changing behavior
- IEC activities provide people the information they need, to make informed choices about adopting and continuing healthy lifestyles
- Effective communication strategies and interventions include tailored messages at the individual level, targeted messages at the group level, social marketing at the community level, and media campaigns at the population level including videos can be prepared at the level of CBM and the same can be facilitated by SH2030.

6. Means of Addressing Hearing Loss using All Levels of Prevention

The hearing loss is on the rise worldwide due to several factors mainly growing global population and increasing proportion of population who are older people. Unless action is taken, by 2030 there will be nearly 630 million people worldwide with disabling hearing loss and by 2050, the number could rise to over 900 million. There is a need to address hearing loss using all levels of prevention-primary, secondary and tertiary and CBM with SH2030 to work together to reduce the ever increasing burden of hearing loss.

Annexure : List of Participants

1. Dr Arun Agarwal, Apollo Hospitals Group, New Delhi, India: President of Delhi Council of Physiotherapy & Occupational Therapy. He was the former Director General Health Services, Government of India and former President of the Delhi Medical Council.
2. Professor Suneela Garg Director Professor & Head Community Medicine, Maulana Azad Medical College, New Delhi, India
3. Professor Peter Alberti, Professor Emeritus ORL, University of Toronto, Toronto, Canada: Former General Secretary Int Fed ORL Societies and former member of the World Health Organization advisory PDH committee.
4. Dr Mazin Al Khabouri, Ear Nose and Throat Senior Consultant and Advisor to Ministry of Health, Government, Muscat, Oman.
5. Mr Giancarlo Alfani, Director of Nonno Ascoltami Udito Italia Onlus, Pescara, Italy.
6. Ms Sarah Allen Research & Public Engagement Lead, The Ear Foundation, Nottingham, UK
7. Mr Emilio Alonso-Mendoza CEO at Alexander Graham Bell Association for the Deaf and Hard of Hearing, Washington DC, USA
8. Ms Maria Teresa Amat President of European Cochlear Implant Users Association (Euro-CIU), Director of Spanish Cochlear Implant Federation AICE Barcelona, Spain
9. Dr Ratna Anggraeni ENT surgeon, Medical Faculty Universitas Padjadjaran/Hasan Sadikin Hospital, Bandung, Indonesia
10. Dr Sue Archbold European Association of Cochlear Implant Users, Loughborough, UK
11. Mr Brian Archbold Editor of Newsletter, European Association of Cochlear Implant Users, Loughborough, UK
12. Ms Toni Marie Bacala Managing Editor of The Hearing Journal (Wolters Kluwer), West New York, USA
13. Mr Jose Juan Barajas De Prat International Association of Physicians in Audiology (IAPA), Santa Cruz, USA
14. Mr Kasper Bergmann World Federation of the Deaf, Copenhagen, Denmark
15. Mr Kaustubh Bhatnagar Country Manager of Medtronic, Gurgaon, India
16. Dr Bianca Birdsey Global Coalition of Parents of Children who are Deaf or Hard Johannesburg, South Africa
17. Mr Mahmood Bhutta Brighton & Sussex University Hospitals, Brighton, UK
18. Mr Peter Böttcher PATH Medical Germering, Germany
19. Ms Tess Bright Audiologist & Public Health Researcher, London School of Hygiene & Tropical Medicine, London, UK
20. Ms Maria Brons Manager of Royal Dutch Kentalis International Foundation, Sint Michielsgestel, The Netherlands
21. Ms Ora Buerkli Hear the World Foundation, Staefa, Switzerland
22. Ms Lise Lotte Bundesen Managing Director of Ida Institute, Naerum, Denmark
23. Dr Priyadarshni Carling Director and Consultant Audiologist, Kent Hearing Ltd, West Malling, UK
24. Mr Ned Carter Audiologist, Senior Programmes Officer, CBM, Cambridgeshire, UK
25. Professor Li-Rong Cheng President of International Association of Logopedics and Phoniatrics, San Diego, USA
26. Ms Maureen Chowen Director of Impact Foundation, Brighton, UK
27. Mr Michael Chowen Director of Hearing Conservation Council, Brighton, UK
28. Professor Jackie Clark University of Texas Dallas, Texas, USA
29. Professor Harvey Coates Paediatric Otolaryngologist, University of Western Australia, Perth, Australia
30. Mr Steve Crump Executive Director of DeafKidz International (DKI), Warwickshire, UK
31. Professor Gary Curhan Nephrologist, Brigham and Women's Hospital/Harvard Medical School, Boston, USA

32. Dr Sharon Curhan Physician Epidemiologist, Harvard Medical School/Brigham and Women's Hospital, Boston, USA
33. Mr Philippe Damie Health counsellor, The French Permanent Mission in Geneva, Switzerland
34. Dr Victor De Andrade Audiologist and lecturer, University of the Witwatersrand, Johannesburg, South Africa
35. Mr Simao De Campos Neto International Telecommunication Union (ITU), Geneva, Switzerland
36. Brother Andrew de Carpentier Salt, Jordan
37. Dr Carolina Der Head of the Speech and Hearing Unit, Hospital Luis Calvo Mackenna, Santiago, Chile
38. Dr Leo De Raeve Director of Independent Information and Research Centre on Cochlear (ONICI), Zonhoven, Belgium
39. Mr Patrick D'hease Corporate Director of Awareness and Public Affairs, MED-EL, Innsbruck, Austria
40. Dr Nicola Diviani Senior Postdoctoral Research Fellow, University of Lucerne & Swiss Paraplegic Research, Person Centered Health Care & Health Communication Group Lucerne, Switzerland
41. Dr Marie-Josée Duran Chief Scientific Officer , Fondation Pour L'Audition, Paris, France
42. Mr John Eichwald Audiologist, Centers for Disease Control and Prevention, National Center for Environmental Health, Atlanta, USA
43. A/Professor Susan Emmett Otolaryngologist, Duke University School of Medicine and Duke Global Health Institute, North Carolina, USA
44. Mr Robbert Jh Ensink ENT surgeon, Eardrop foundation and LSHTM, Drempt, The Netherlands
45. Mr Bernhard Fattinger Permanent Mission of Austria to the Office of the UN in Geneva Geneva, Switzerland
46. Ms Sonia Fleming Senior Advisor, NHS England London, UK
47. Professor Bernard Fraysse President of International Federation of Oto-rhino-laryngological Societies, Toulouse, France
48. Dr Uta Froeschl ENT Consultant, CBM, Berlin, Germany
49. Mr Xinxing Fu Beijing Institute of Otolaryngology, Beijing Tongren Hospital, Capital Medical University, Beijing, China
50. A/Professor Adrian Fuente Université de Montreal, Montreal, Canada
51. Mr Muhammad Akram, Secretary General of Asia-Pacific Federation of the Hard of Hearing and Deafened, Karachi, Parkistan.
52. Mr Alberto Golinelli Amplifon SpA, Bologna, Italy Mr Alberto Golinelli Amplifon SpA, Bologna, Italy
53. Ms Johanna Gutenberg Eriksholm Research Centre, Copenhagen, Denmark
54. Dr Khalid Abdul Hadi H A Eissa Senior Consultant, Head of Audiology and Balance Unit, Hamad Medical Corporation, Doha, Qatar
55. Ms Racheal Hapunda National coordinator for ear Nose and Throat, Ministry of Health Lusaka, Zambia
56. Ms Sally Harvest CBM/World Health Organization Dublin, Ireland
57. Dr Siti Sabzah Hashim Head of Otorhinolaryngology Services, Hospital Sultanah Bahiyah Jalan langgar and Ministry of Health, Alor Setar, Malaysia
58. Dr T.j. Hees Eardrop, Haarlem, The Netherlands
59. Mr Anders Hegre Hørselshemmedes Landsforbund (HLF), Oslo, Norway
60. Professor Linda Hood Hearing Scientist, Vanderbilt University Tennessee, USA
61. Dr Lihui Huang Beijing Tongren Hospital, Capital Medical University, Beijing, China
62. Mr Christian Hugonnet Founding President, la Semaine du Son Paris, France
63. Professor Titus Ibekwe Professor and Head of Department Otorhinolaryngology, University of Abuja Teaching Hospital, Abuja, Nigeria
64. Ms Anisa Ibrahimović Global Coalition of Parents of Children who are Deaf or Hard of Hearing, Sarajevo, Bosnia and Herzegovina

65. Dr Kotaro Ishikawa Head Otorhinolaryngologist, National Rehabilitation Center for Persons with Disabilities Saitama, Japan
66. Mr Kimitaka Kaga Director of National Institute of Sensory Organs, National Tokyo Medical Center, University of Tokyo, Tokyo, Japan
67. Ms Siti Aminah Kamaludin Senior Audiologist, Hospital Queen Elizabeth, Kota Kinabalu, Malaysia
68. Mr Masahito Kawamori Project Professor at the Graduate School of Media and Governance, Keio University, Fujisawa, Japan
69. Dr Kelly King Clinician Researcher and Program Director, National Institute on Deafness and Other Communication Disorders (NIDCD), Maryland, USA
70. Mr Frank Koall General Manager, Help and Hear foundation, Hergiswil, Switzerland
71. A/Professor Ozlem Konukseven Head of Audiology, Istanbul Aydin University, Istanbul, Turkey
72. Dr Young Ah Ku ENT specialist, The Korean Association of Otorhinolaryngologists, Seoul, Republic of Korea
73. Mr Brian Lamb Chair of Action Group on Adult Cochlear Implants/Hearing and Deafness Alliance, St Albans, UK
74. Dr Luqman Lawal Director of Global Health & Research for Starkey Hearing Foundation, University of Minnesota Eden Prairie, USA
75. Mr Mark Laureyns Audiologist and Speech Pathologist, President of European Association of Hearing Aid Professionals (AEA), Sint Niklaas, Belgium
76. Mr Sebastien Leroy Association JNA, Tassin-La-Demi-Lune, France
77. Ms Julia Ligeti Global Manager Public Policy Advocacy, Cochlear Ltd, Melbourne, Australia
78. Dr Frank Lin Johns Hopkins University, Baltimore, USA
79. Ms Tingting Liu China Rehabilitation Research Centre for Hearing and Speech Impairment, Beijing, China
80. Ms Mo Long Audiologist, China Rehabilitation Research Centre for Hearing and Speech Impairment, Beijing, China
81. Professor Isaac Macharia Professor of ENT, University of Nairobi, Nairobi, Kenya
82. Professor Saeid Mahmoudian Professor of audiology and auditory neuroscience, ENT and Head Neck Research Center, Iran University of Medical, Tehran, Iran
83. Professor Norberto Martinez University of Santo Tomas, Better Hearing Philippines, Inc. Psig City, Philippines
84. Dr Samra Mazhar Deputy Director, Ministry of National Health Services, Regulations & Coordination, Islamabad, Pakistan
85. Professor Catherine McMahon Professor of Audiology, Macquarie University, Balmain, Australia
86. Professor Donald Bradley Mcpherson Professor of Audiology, University of Hong Kong, Hong Kong Special Administrative Region, China
87. Dr Amarilis Melendez Panama City, Panama
88. Mr Mauro Menziatti Founder of Nonno Ascoltami Udito Italia Onlus, Pescara, Italy
89. Ms Juliana De Moura Gomes Permanent Mission of Brazil to the UN Office and other international organizations in Geneva, Geneva, Switzerland
90. Dr Kaitesi Mukara International Development Director – Africa, Starkey Hearing Foundation, Nairobi, Kenya
91. Dr Doreen Nakku Lecturer/ENT Surgeon, Mbarara University of Science and Technology Mbarara, Uganda
92. Mr Alok Narang Director of Alps International PVT LTD, Hearing Industries Association of India, New Delhi, India
93. Ms Katrin Neumann St. Elisabeth Hospital Bochum, Bochum, Germany
94. A/Professor Carrie Nieman Johns Hopkins University School of Medicine Dept. Otolaryngology-HNS, Baltimore, USA

95. Mr Olende Nyindodo Director of Global Development and Initiatives, Starkey Hearing Foundation, Eden Prairie, USA
96. Mr John O'connell Hearing Conservation Trust/Impact Brighton, UK
97. Professor Seung Ha Oh Seoul National University College of Medicine, Seoul, Republic of Korea
98. Dr Bolajoko Olusanya Paediatrician, Executive Director of Centre for Healthy Start Initiative, Lagos, Nigeria
99. Ms Alissa Parady International Hearing Society, Dumfries, UK
100. Ms Kavita Prasad CEO of Sound Seekers, London, UK
101. Dr Christopher Prescott Cape Town, South Africa
102. Professor Milan Profant Head, Department of ORL HNS Medical Faculty and University Hospital, Bratislava, Slovakia
103. Ms Nyilo Purnami National Committee for Hearing Impairment Prevention and Deaf, Surabaya, Indonesia
104. Ms Audra Renyi Executive Director of World Wide Hearing Foundation International, Montreal, Canada
105. Mr Hubert Ramos Audiologist and Course Director, University of Santo Tomas, Manila, Philippines
106. Ms Karine Rossignol Fondation Pour l'Audition Paris, France
107. Professor Robert Ruben Albert Einstein College of Medicine, Dep. Otolaryngology Head, New York, USA
108. Ms Leela Agnes Sambantham Director of Holy Cross Service Society, Trichy, India
109. Dr Diego Santana Hernandez Senior Advisor for Ear and Hearing Care, CBM International, Bensheim, Germany
110. Dr James Saunders Professor of Otology, Dartmouth Hitchcock Medical Centre, Coalition for Global Hearing Health, Lebanon
111. Mr George Savy Audiologist, Audiology Unit, Rehabilitation Centre for Persons with Disabilities, Ministry of Health Victoria, Seychelles
112. Professor Mohamed Shabana Professor of Audiology, Faculty of medicine, Cairo University, Cairo, Egypt
113. Dr Jagjit Sethi Berkshire Healthcare NHS Foundation Trust, Windsor, UK
114. Dr Narveshwar Sinha ENT surgeon, Chairman of IDEAL Charity, Sale, UK
115. Professor Henryk Skarzynski World Hearing Center of Institute of Physiology and Pathology of hearing, Warsaw, Poland
116. A/Professor Piotr Skarzynski ENT Surgeon, World Hearing Center of Institute of Physiology and Pathology of hearing, Warsaw, Poland
117. Professor Andrew Smith London School of Hygiene and Tropical Medicine, London, UK
118. Ms Paige Stringer Executive Director and Founder of Global Foundation for Children with Hearing Loss, Poulsbo, USA
119. Dr Ronny Suwento Subanto Director DR Cipto Mangunkusumo National Hospital/ Faculty of Medicine Jakarta Selatan, Indonesia
120. Professor De Wet Swanepoel Professor of Speech-Language Pathology and Audiology, University of Pretoria, Pretoria, South Africa
121. Professor Kamrul Hassan Tarafder Chairman & Professor of the department of otolaryngology-Head & Neck Surgery Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
122. Mr George Tavartkiladze Director of National Research Centre for Audiology and Hearing Rehabilitation, Moscow, Russia
123. Ms Sian Tesni CBM Senior Advisor for Education, Llantwit Major, UK
124. Professor Peter Thorne Professor of Audiology and Auditory Neuroscience, University of Auckland, Auckland, New Zealand
125. Ms Inge Bossen Thorsen Hørselshemmedes Landsforbund (HLF), Son, Norway
126. Ms Gemma Twitchen Audiologist, Action on Hearing Loss, UK

127. Mr Tim Von Klitzing Mimi Hearing Technologies, Berlin, Germany
128. Ms Yufeng Wang Director assistant of WHOCC for PDH in Nanjing China, Director of Foreign Affairs Division of Jiangsu Province Hospital, Nanjing, China
129. Dr Ruth Warick President of ECOSOC, International Federation of Hard of Hearing People, Vancouver, Canada
130. Dr Roger Wicks Director of Policy & Campaigns, Action on Hearing Loss, London, UK
131. Lady Jean Wilson President of Hearing Conservation Council / Sightsavers / Impact, Brighton, UK
132. Professor Bu Xingkuan Jiangsu Province Hospital, Nanjing Medical University, Nanjing, China
133. Professor Christine Yoshinaga-Itano University of Colorado, Boulder, USA
134. Mr Robin Youngs ENT Surgeon and Founder of the Global Health Initiative of ENT UK, Gloucester, UK
135. Ms Laia Zamora EURO-CIU Assistant (European Cochlear Implant User's Association), Valencia, Spain
136. Mr Stefan Zimmer European Hearing Instrument Manufacturers Association, Frankfurt, Germany