Deafness and Hearing Impairment Survey

Report of the Consultative Meeting of Principal Investigators
SEARO, New Delhi, 7-9 May 2001

WHO Project: ICP DPR 001

World Health Organization
Regional Office for South-East Asia
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1. BACKGROUND

A Consultative Meeting of Principal Investigators on Deafness and Hearing Impairment Survey was held in WHO/SEARO, New Delhi from 7 to 9 May 2001.

There is a paucity of data on deafness and hearing impairment both globally as well as in the South-East Asia Region. The patchy information that is available from different countries is based on studies, conducted on the basis of different methodologies. In order to overcome the problem of inconsistencies in the survey design, WHO Headquarters developed a protocol for survey of deafness and hearing impairment. This was field-tested in some countries. Following this, in 1997 the Regional Office supported a four-country study using the above protocol in India, Indonesia, Myanmar and Sri Lanka. For various reasons, the studies took longer than expected. All four principal investigators have now submitted either full or abridged forms of the report of the study.

The principal investigators from India, Indonesia, Myanmar and Sri Lanka attended the meeting along with the Heads of WHO Collaborating Centres for Prevention of Deafness and Hearing Impairments in Indonesia, UK and Thailand, and WHO staff from the Regional Office and Headquarters. See list of participants in Annex 1 and programme in Annex 2.

2. OBJECTIVES AND EXPECTED OUTCOME

2.1 Objectives

(1) To review critically the survey methodology followed in each country for uniformity and consistency as proposed in the WHO Protocol for Survey of Deafness and Hearing Impairment.

(2) To review the constraints and problems during the study and to learn lessons for future application in other countries.
(3) To review the findings of the study and analyze the available information to prepare a status of Deafness and Hearing Impairment in the countries of the Region.

(4) To make specific recommendations for development of Regional Strategic Plan and National Programmes for Prevention of Deafness and Hearing Impairment.

2.2 **Expected Outcome**

(1) Report of the Survey and the Consultative Meeting, including overview of results, achievements and constraints of the 4-country survey project.

(2) Understanding of the problems with the WHO Ear and Hearing Disorders Survey Protocol (EHDSP) and with the surveys themselves and how these were solved.

(3) Suggestions for improving the WHO Ear and Hearing Disorders Survey Protocol (EHDSP) and software.

(4) Proposals for how to use the results of the surveys for raising awareness and developing national programmes.

(5) Proposals for methods and sites for future surveys.

3. **INAUGURAL SESSION**

Welcoming the participants, Dr Sawat Ramaboot, Ag. Director, Social Change and Noncommunicable Diseases, WHO/SEARO traced the evolution of the study and hoped that this consultative meeting would enable the participants to review the progress of the survey as well as help in analyzing the data collected from the four countries. Dr Andrew Smith, Medical Officer responsible for activities for prevention of deafness and hearing impairment at WHO Headquarters informed the participants that these studies in South-East Asia were among the first in the world using the WHO Ear and Hearing Disorders Survey Protocol in pursuit of establishing population-based data on deafness and hearing impairment. Dr Madan Upadhyay, Regional Adviser on Disability, Injury Prevention and Rehabilitation, briefed the participants on the objectives and expected outcome of the meeting.

Dr Abraham Joseph (India) was nominated as Chairman and Dr Ian Mackenzie (UK) as Rapporteur. The participants appreciated the efforts of WHO in the last several years in the prevention of deafness and thanked the Regional Director for his support. They also reiterated that the results of the
study and the deliberations of the meeting should lead to development of a
time-bound action plan for prevention of deafness and hearing impairment in
the Region.

4. HEARING DISABILITY SURVEY PROTOCOL

The participants highlighted the value of the WHO Ear and Hearing Disorders
Survey Protocol in conducting the studies. The principal investigators in all
four centres found it useful to follow the survey protocol. However, some
local sensitivity made deviations from the protocol necessary. In view of this
deviation, participants felt that measures need to be taken to ensure
comparability of the data collected. The participants discussed these
extensively and made suggestions for improvement.

5. RESULTS OF THE SURVEY

While data from some centres were complete in all details, they needed to be
closely scrutinized in others. Scrutiny of data was carried out individually with
PIs from each centre. Participants stressed the importance of ensuring the
quality of data collected by each centre.

5.1 Validation for Analysis

Validation of data, double entry of data, pilot study, preliminary analysis after
few clusters have been done.

Participants also discussed and agreed upon the variables for detailed
analysis to be presented in the final report. This is presented below:

5.2 Variables for Analysis

Basic tables
Age/sex distribution 0-4, 5-14, 15-29, 30 – 44, 45 – 59, 60-74, 75+
Urban / rural
Prevalence of Hearing loss
  − By age and sex
  − unilateral, bilateral
  − mild, moderate, severe, profound
Prevalence of disabling hearing impairment (as per WHO recommendations)
- By age and sex
- 41 dbl. or greater
- 41-60 dbl.
- 60+ dbl.

Prevalence of ear disorders
- Distribution of diseases in whole population
- Distribution in those with hearing impairment
- Distribution in those with disabling hearing impairment
- Relative risk initially for each cause in the total population

Hearing impairment by age of onset

Hearing impairment by family history

Action needed by age and sex.

6. DEFINITION OF HEARING DISABILITY

Disabling hearing impairment in adults should be defined as a permanent unaided hearing threshold level for the better ear of 41 dB or greater; for this purpose the hearing threshold level is to be taken as the better ear average hearing threshold level for the four frequencies 0.5, 1, 2, and 4 kHz.

Disabling hearing impairment in children under the age of 15 years should be defined as a permanent unaided hearing threshold level for the better ear of 31 dB or greater; for this purpose the hearing threshold level is to be taken as the better ear average hearing threshold level for the four frequencies 0.5, 1, 2, and 4 kHz.

7. REPORT OF THE STUDY AND DISSEMINATION

It was agreed that the Consultant will compile and forward to the Regional Office the consolidated final report of the studies by end of June 2001. SEARO will then process the report and publish it as its official document. While a wider dissemination through scientific meetings and conferences as well as through peer-reviewed journals would be desirable, it was conveyed

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to the participants that these would be possible only after the document formally is issued. Investigators could publish articles individually referring to the earlier WHO publication with the prior permission of WHO.

8. RECOMMENDATIONS

8.1 Report

(1) The final report of the study be should be published within three months. A Regional Profile of Deafness and Hearing Impairment should also be prepared, based on the four country study and other studies/reports from the countries of the Region to provide the evidence base for future programme development.

(2) The report should be sent to WRs, concerned national authorities, professional societies, relevant NGOs and other interested parties, and presented and published in national and international journals, seminars, conferences as appropriate after due consultation with WHO.

8.2 Regional Strategic Plan

(1) These data should be used to formulate a Regional Strategic Plan for Prevention of Deafness and Hearing Impairment.

(2) WHO should convene intercountry consultation to develop the Strategy Plan after completing the necessary ground work, for which the services of a consultant may be availed (ToR for consultant is attached as Annex 3).

(3) National Focal Persons: WHO should request Member-Countries to identify national focal persons for Prevention of Deafness and Hearing Impairment.

(4) National Plan of Action: The WHO Regional Office should encourage governments to develop national plans of action through WHO-supported national workshops, if necessary.

(5) Regional Committee Resolution/Agenda: The Regional Director should include discussions on prevention of deafness and hearing impairment as an agenda item in the 55th session of the Regional Committee.

(6) Participants on their return home should use their influence to encourage governments to give priority to prevention of deafness and hearing impairment programmes in their national health agenda and to mobilize support of international agencies including WHO for this purpose.
Annex 1

List of Participants

Dr Abraham Joseph
Professor and Head
Community Health Department
Christian Medical College
Vellore
Tamil Nadu
India

Dr Bulantrisna Djelantik
ENT Department Faculty of Medicine
University of Padjajaran
Hasan Sadikin Hospital
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Dr Ian Mackenzie
Head WHO Collaborating Centre for
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United Kingdom

Dr S Ronny
Jakarta Centre for Ear Care and
Communicative Disorders
WHO Collaborating Centre for Prevention
of Deafness and Hearing Impairment
Jakarta
Indonesia

Dr Myo Min
Prof and Head ENT Hospital
Yangon
Myanmar

Prof Dr Suchitra Prasansuk
Director, Otological Centre
Bangkok Unit
Department of Oto-Rhino-Laryngology
Siriraj Hospital, Mahidol University
Bangkok
Thailand

WHO Secretariat

Dr Andrew Smith
Coordinator PBD
WHO/HQ, Geneva

Dr Sawat Ramaboot
Ag Director
Social Change and Noncommunicable Diseases
WHO/SEARO, New Delhi

Dr Madan P Upadhyay
Regional Adviser
Disability Injury Prevention and Rehabilitation
WHO/SEARO, New Delhi

Dr Adik Wibowo
Regional Adviser
Research Policy and Cooperation
WHO/SEARO, New Delhi

Dr Myint Htwe
Regional Adviser
Evidence for Health Policy
WHO/SEARO, New Delhi

Dr Harry Deoraj Caussy
Regional Epidemiologist
WHO/SEARO, New Delhi

Dr Jerzy Leowski
Regional Adviser
Noncommunicable Diseases, Surveillance
WHO/SEARO, New Delhi
Annex 2

PRO GRAM ME

Monday, 7 May 2001

8:30 - 9:00 a.m. Registration.
9:00 - 9:15 a.m. Introduction, Scope, Purpose and Objectives of the Workshop
  - Sawat Ramaboot, A. Smith, Madan Upadhyay
9:15-9:45 a.m. Overview of current situation regarding 4-country survey
  - Ian Mackenzie
10:00 – 10:30 a.m. Principal Investigator's Presentation – India
10:30 – 11:00 a.m. Principal Investigator’s Presentation – Indonesia
11:00 – 12:00 p.m. Principal Investigator’s Presentation – Myanmar
12:00 – 12:30 p.m. Principal Investigator’s Presentation – Sri Lanka
02:00 – 02:20 p.m. Report on Validation Study of Survey Methodology
  - Dr Bulantrisna Djelantik
02:20 – 04:30 p.m. Strengths, Weaknesses of WHO Deafness and Hearing
  Impairment Survey Protocol
  Difficulties/Constraints is using the protocol

Tuesday, 8 May 2001

09:00 a.m. – 12:30 p.m. Fine tuning and finalizing the data
02:00 – 04:30 p.m. Future Development of WHO Ear and Hearing Disorders
  Survey Protocol and Software - Andrew Smith, Ian Mackenzie
  Discussions

Wednesday, 9 May 2001

9:00 a.m. - 12:30 p.m. Draft Recommendation for future action
02:00 – 03:00 p.m. Summary presentation and adoption of recommendations
03:00 – 03:30 p.m. Closing
Annex 3

TERMS OF REFERENCE FOR THE CONSULTANT TO DEVELOP A DRAFT REGIONAL PROFILE FOR DEAFNESS AND HEARING IMPAIRMENT

(1) To develop a regional profile of deafness and hearing impairment, including prevalence, causes and needs, in the South-East Asian Region, using the results of the Survey and Final Report of the consultative Meeting of Principal investigators on deafness and hearing impairment, New Delhi, May 2001, and other relevant studies including the 1998 regional profile.

(2) To make a draft regional strategy for deafness and hearing impairment for discussion and finalization at an Inter-country consultation within the region.

(3) Submit the finalized Regional Strategy document on Deafness and Hearing Impairment.