
MULTI-COUNTRY ASSESSMENT OF NATIONAL CAPACITY TO PROVIDE HEARING CARE



World Health
Organization

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FOREWORD

I am pleased to present the first World Health Organization (WHO) report on the multi-country assessment of national capacity to provide hearing care.

In 2013, WHO released estimates of the global prevalence of hearing loss. 360 million people live with disabling hearing loss globally; the majority of hearing problems could be prevented or treated. Chronic ear infections, meningitis, rubella, noise and use of ototoxic medications are the main causes, and these can be readily addressed through known public health measures. Low- and lower-middle-income countries are the most affected, and are also challenged in the development and provision of good quality and timely ear care services by socioeconomic conditions. A World Health Assembly resolution in 1995¹ recognized that severe hearing loss constitutes a serious obstacle to optimal development, communication and education. It urged Member States to develop national plans within the primary health care framework.

WHO provides technical assistance to its Member States to help them develop sustainable and effective primary ear and hearing care services using the primary health care delivery platform. This assistance comprises technical expertise, educational resources and strategic guidance for capacity

development at various levels of the health system structure. WHO also raises awareness about the magnitude and distribution – both geographical and across the life course – of hearing loss, as well as identifying opportunities for its prevention, detection and management. The Organization develops and disseminates recommendations on health interventions and strategies to address the major preventable causes of hearing loss. It supports Member States and international partners to develop, implement and monitor national/subnational plans to deliver effective ear and hearing care.

This report outlines current information on plans and programmes for the prevention and cure of hearing loss, as recently reported by the WHO Member States. It fulfils a core WHO function of monitoring the status of health system development. WHO acknowledges that the interpretation of results is limited by the low response rate. However, it offers an analysis of the Member State reporting, and uses the information to identify corresponding data and human resource gaps. It also outlines some potential approaches to addressing those gaps. As the first report of its kind, it also constitutes a baseline record against which future progress may be charted.

Dr Oleg Chestnov

Assistant Director-General

Noncommunicable Diseases and Mental Health

¹ WHA48.9: Prevention of hearing impairment (1995).

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EXECUTIVE SUMMARY

BACKGROUND

A questionnaire-based assessment was launched by the World Health Organization (WHO) in 2012 to assess the capacity of Member States to develop and implement national or subnational plans and programmes focused on ear and hearing care. The current report provides a global picture of resources available to prevent, diagnose and manage hearing loss.

METHODS

A questionnaire was developed and shared with Member States through WHO regional and country offices. Information was sought from the ministries of health. Responses were received from 76 of 154 Member States (with country offices). For countries where a WHO country office does not exist, and those that did not respond to the survey, contact was established with nongovernmental agencies and experts working in the field of ear and hearing care, where possible. A literature search which focused on the theme of the survey was also conducted. Through these alternate sources, information was gathered for another 19 Member States.

The key findings pertain to the analysis of information received from 76 Member States through their ministries of health, unless specified otherwise.

KEY POINTS

- There is an overall scarcity of epidemiological evidence regarding prevalence of hearing loss and ear diseases in Member States.
- There is a lack of information related to human resources for ear and hearing care as well as national/subnational plans/programmes among Member States.
- Human resources for ear and hearing care are unequally distributed in the world, with a greater concentration of resources in the high- and upper-middle-income countries.
- National committees to promote and develop plans for ear and hearing care are in place in 20 of the participating Member States that responded to the questionnaire. Implementation of such plans is reported by 32 of the responding countries.

EXECUTIVE SUMMARY

KEY FINDINGS

EPIDEMIOLOGICAL STUDIES FOR PREVALENCE OF HEARING LOSS

- Population-based data related to prevalence and causes of hearing loss were found to be sparse across all income levels and WHO regions.
- 44% of responding Member States reported that epidemiological data regarding prevalence of hearing loss were available. The nature of the data was not consistent across Member States and was not representative of all sectors within countries.

HUMAN RESOURCES AND EDUCATIONAL FACILITIES

- The availability of human resources for ear and hearing care (for example ear, nose and throat (ENT) specialists, audiologists, educators/teachers for deaf and other hearing loss specialists) appears to vary with the income group of responding countries. Predictably, the number of available human resources per million of population is higher in the high- and upper-middle-income countries.
- Among the WHO regions, all cadres of related human resources were found to be lowest in the responding Member States from the African Region.
- The availability of educational facilities for ENT specialists, audiologists and teachers is greater in the high- and upper-middle-income groups. Educational opportunities are lower in the African Region, as compared to the South-East Asian and Western Pacific Regions.

NATIONAL COMMITTEE FOR EAR AND HEARING CARE OR PREVENTION OF HEARING LOSS

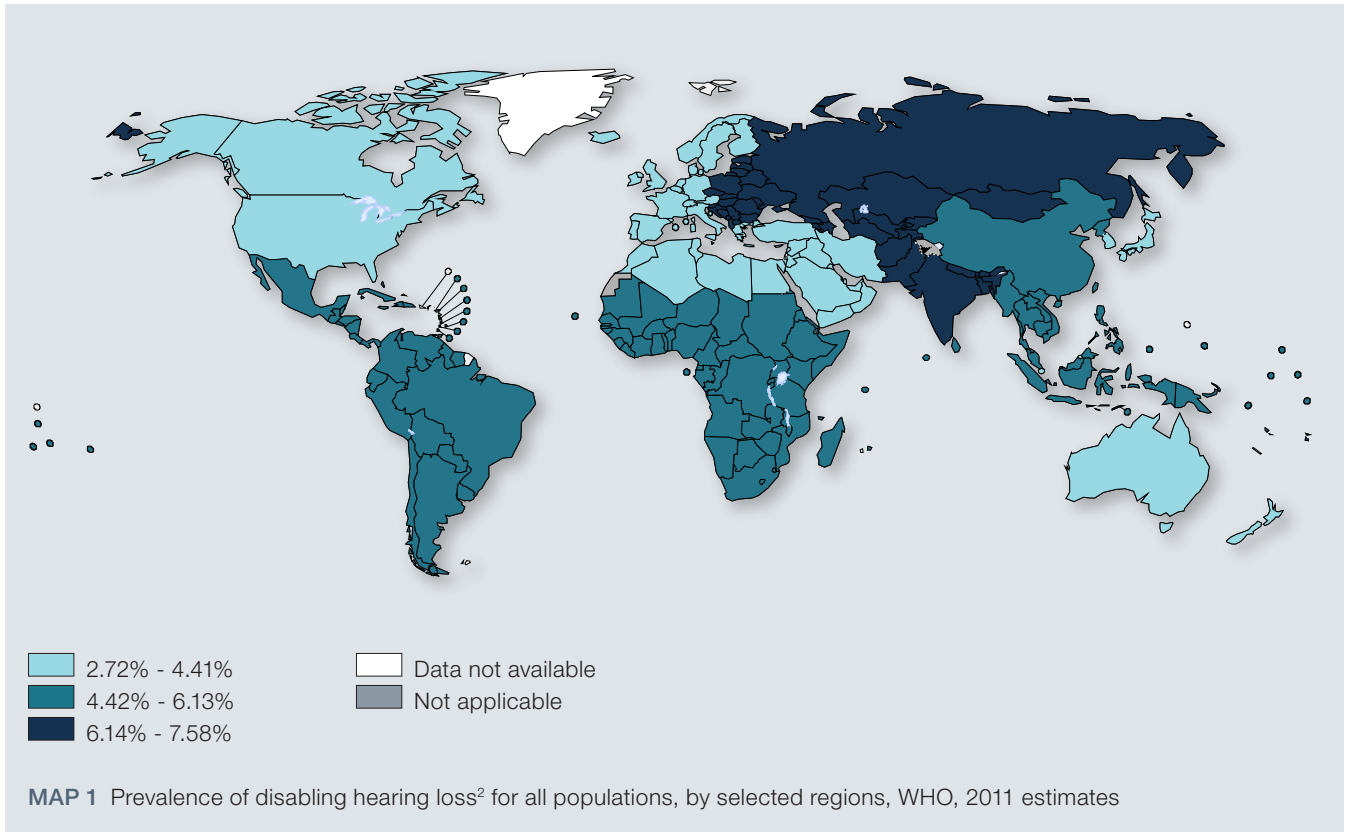
- 26% of the respondents reported the establishment of a national committee for ear and hearing care in the country.
- The formation of a national committee does not appear to be related to the income level of the responding countries. Among the WHO regions, 70% of the countries in the South-East Asia Region had established such committees.

- Most committees have representation from ministries of health (95%), education (75%) and social services (75%). Other groups represented include professional groups, academic institutions and disabled persons' organizations.
- The committees perform the key roles of developing and implementing a national plan for ear and hearing care. They are also responsible for partnering with nongovernmental organizations, developing training and awareness materials, and monitoring.

NATIONAL OR SUBNATIONAL PLAN/ PROGRAMME/ POLICY FOR EAR AND HEARING CARE OR PREVENTION OF HEARING LOSS

- 40 Member States reported having a plan, programme or policy to address hearing loss at the national or subnational level.
- A greater proportion of respondents from the high-income (83.3%) and upper-middle-income countries (64.7%) reported the formulation of such plans, programmes or policies for ear and hearing care, as compared to lower-middle- (44%) and low-income (38%) countries.
- 70% of the respondents from the South-East Asia Region, 60% from the Western Pacific Region and 38% from the African Region reported the development of plans/ programmes/policies for ear and hearing care.
- Ministries of health (100%), education (61.3%), social services (54.8%) and environment (61.3%) are most commonly involved in programmes for ear and hearing care.
- In the majority of countries (53.5%) that provided information about financial sources, funding for the programme is partly from the national government and partly from nongovernmental agencies.
- The most common reasons cited for absence of ear and hearing care programmes in the participating Member States were identified as: other health priorities and lack of financial/human resources. Lack of need was not cited as a reason by any of the Member States.

INTRODUCTION



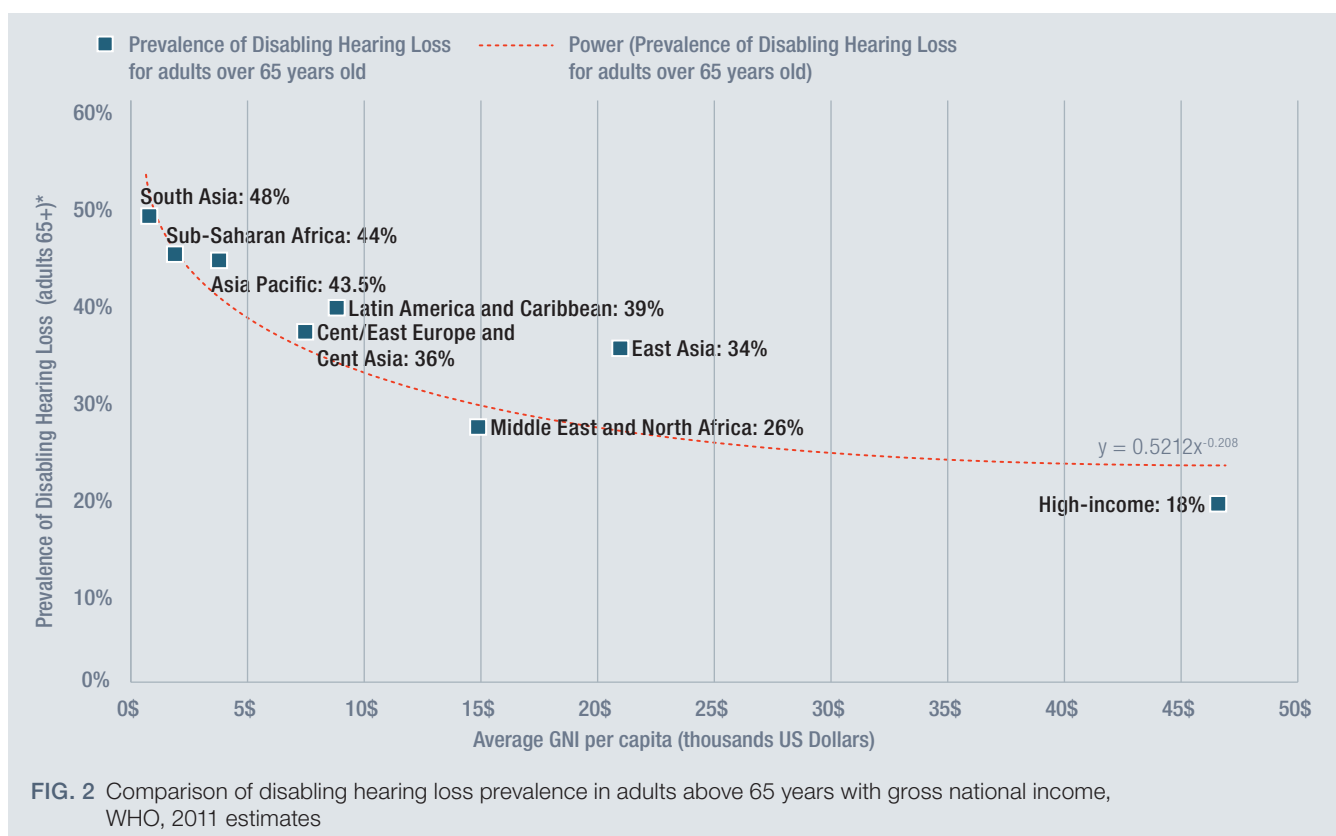
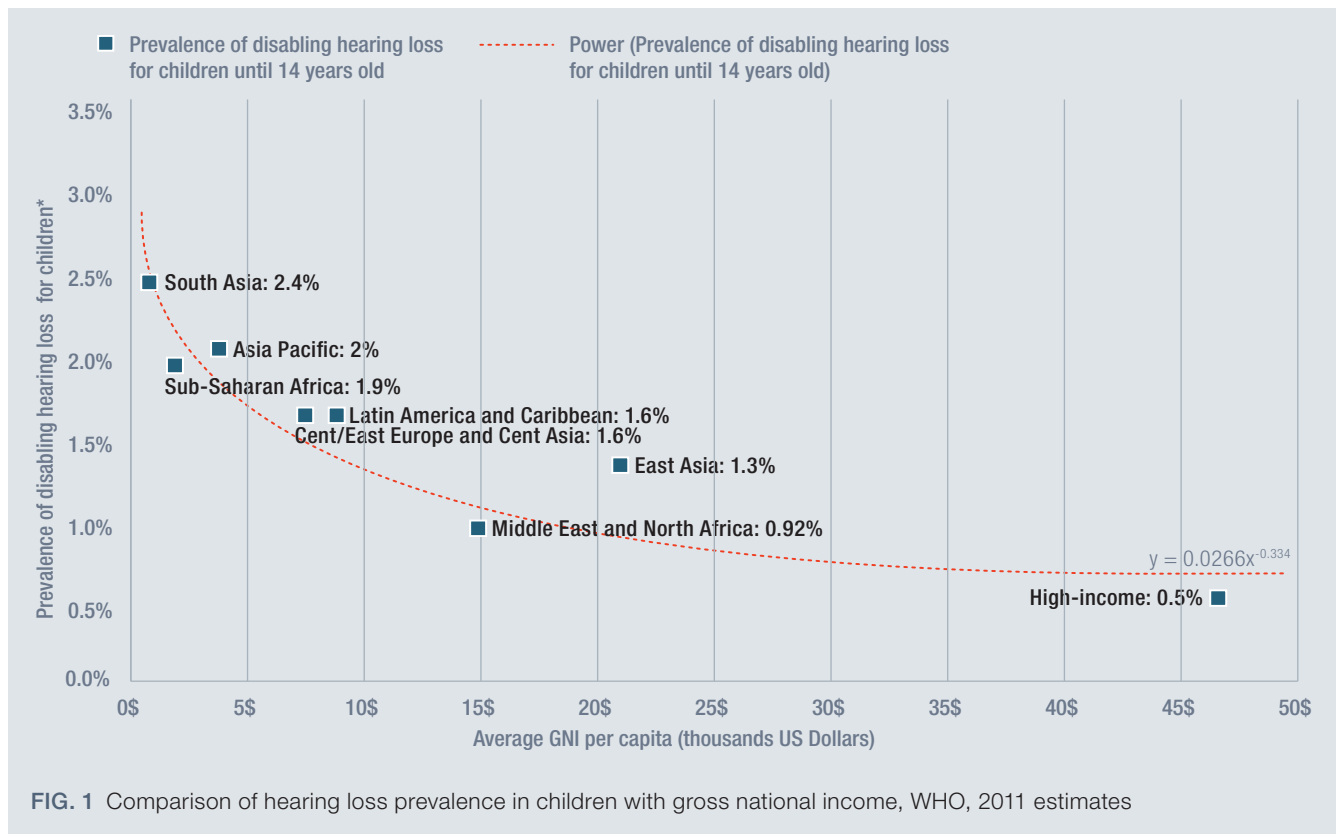
There are 360 million people in the world with disabling hearing loss² (i.e. 5.3% of the world’s population), including 32 million children. The prevalence of hearing loss varies across the world, but is greatest in the Asia Pacific and sub-Saharan Africa regions.

The income status of the country or region may be related to the prevalence of hearing loss. In children and adults aged above 65 years, prevalence tends to decrease exponentially as the gross national income increases. (see Figures 1 and 2 on following page)

In 1995, World Health Assembly resolution WHA48.9 expressed concern at the growing problem of largely preventable hearing loss in the world. It urged Member States to prepare national plans for the prevention and control of major causes of avoidable hearing loss, and for early detection in babies, toddlers and children, as well as in the elderly, within the framework of primary health care. In this context, a survey was conducted in 2012 by the WHO Prevention of Blindness and Deafness Unit, to outline the current status of ear and hearing care plans and programmes in Member States and to support monitoring of related global progress.

² Disabling hearing loss’ refers to hearing loss greater than 40dB in the better hearing ear in adults, and greater than 30dB in the better hearing ear in children (0–14 years).

INTRODUCTION



METHODOLOGY

Compiling the current publication has involved staff at WHO headquarters, regional and country offices, and ministries of health in collecting information about the status of human resources, plans and programmes for ear and hearing care. The project involved multiple administrative and methodological steps, including development of a questionnaire, statistical analysis and presentation of data.

STAGE 1: QUESTIONNAIRE DEVELOPMENT AND PEER REVIEW

A survey questionnaire was developed through the collaborative efforts of the WHO Unit for Prevention of Blindness and Deafness (PBD), the WHO Health Statistics and Information Systems Department and WHO regional offices. A glossary was included to help ensure that the terms used were understood equally by all respondents. The questionnaire was drafted in English and translated into all official United Nations languages (Arabic, Chinese, French, Russian and Spanish).

The questionnaire was sent to all the PBD Regional Advisors and four additional experts for their input and was modified accordingly.

STAGE 2: QUESTIONNAIRE DISTRIBUTION

The questionnaire was sent to the 154 WHO country offices. It was then shared by these with the ministries of health in the relevant countries. It was requested that the questionnaire be completed by the National Coordinator for Prevention of Hearing Loss in the ministry of health, or a person with similar authority and knowledge about the national prevention of hearing loss and ear care activities.

STAGE 3: QUESTIONNAIRE SUBMISSION

The questionnaire responses were received through WHO country and regional offices. A staff member at WHO was available to respond to any enquiries made by the contact people and to provide additional guidance, where required.

STAGE 4: CLARIFICATION PROCESS

Once a completed questionnaire was received, it was screened for incomplete answers and inconsistent data. Data were supplemented through literature searches and by seeking information from relevant experts. The respondents were contacted to clarify responses, if required.

STAGE 5: DATA MANAGEMENT AND ANALYSIS

Data were aggregated by WHO regions³ and by World Bank income group. The list of responding countries is provided at the end of this report. Rates per million population were calculated using data from the United Nations Statistics Division.

LIMITATIONS

A number of limitations need to be considered when examining the results.

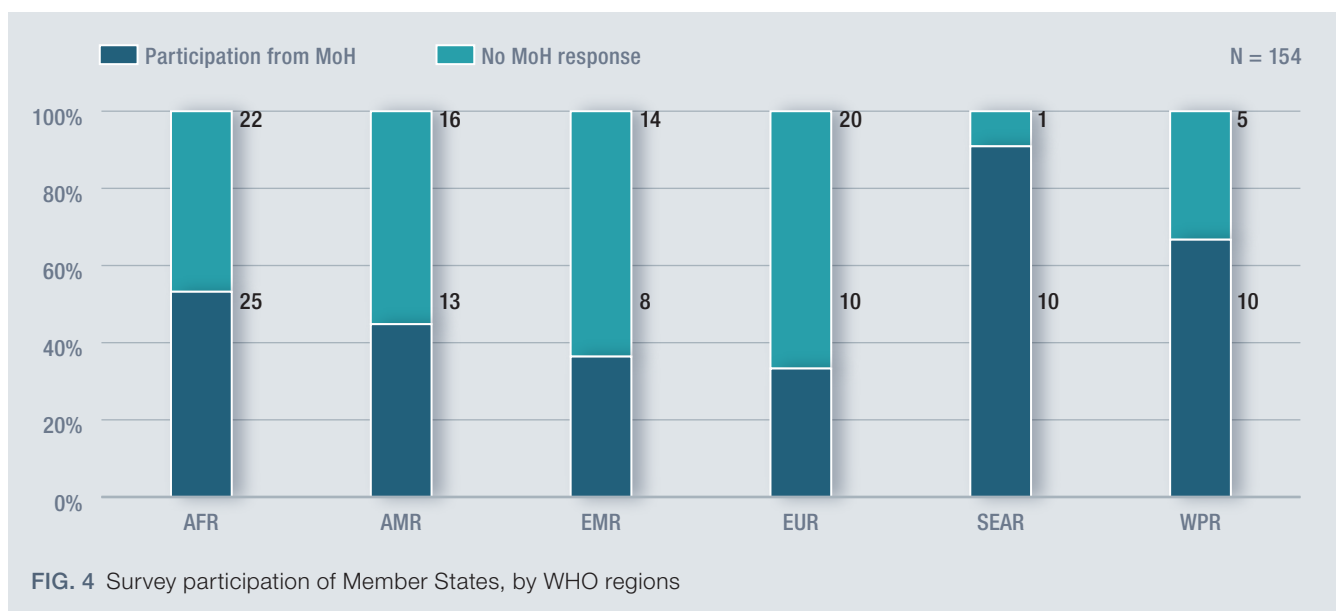
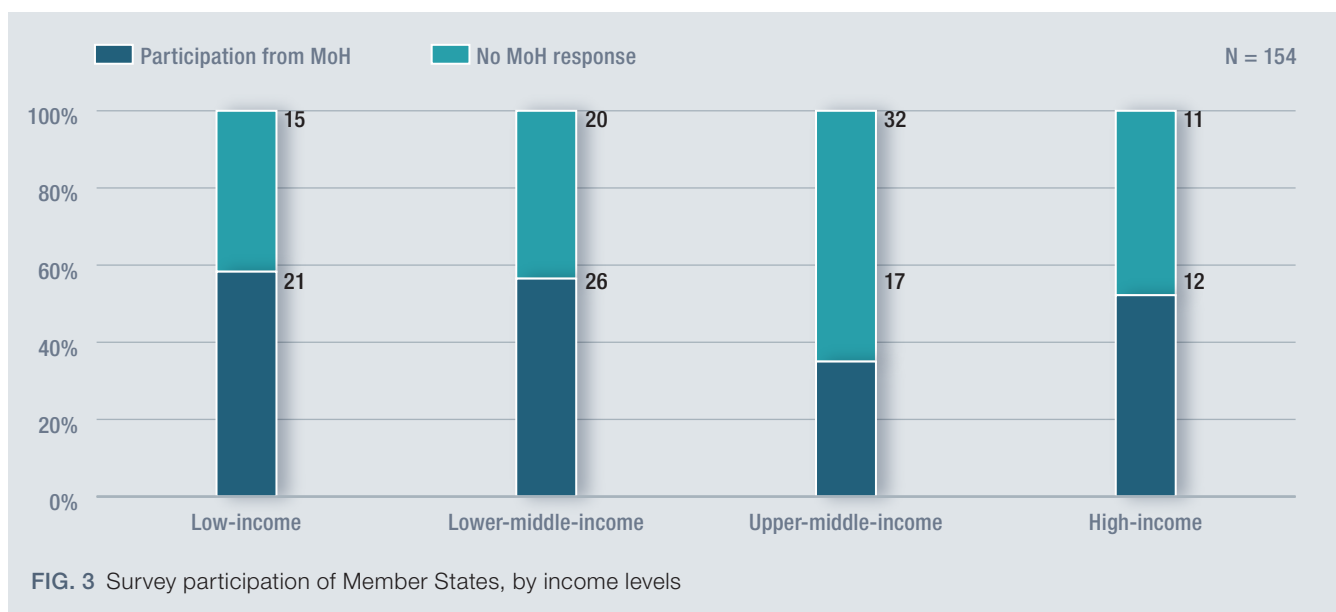
- The questionnaire was shared with 154 of the 194 WHO Member States. For systematic distribution and ease of follow-up, the questionnaire was sent through WHO regional and country offices. This process excludes those Member States where WHO country offices do not exist.
- Responses were received from ministries of health in 76 Member States. Alternate sources of information were used to compile data for 19 Member States. The low response rate (49.4%) is a major limitation and prevents us from gaining a global perspective.
- Some countries were unable to provide data on some specific indicators. The number of respondents for each of the questions is provided in the relevant table/figure.
- The survey questionnaire used working definitions of terms arrived at through consultations with experts. It was considered important to use a balance between the 'most appropriate' definitions and those that are used most commonly. Efforts were made to clarify this to the coordinators, whenever a query was received. However, it is possible that some countries may have interpreted the definitions provided differently.
- The report captures the situation in selected Member States in 2012. As development of plans and programmes is an ongoing process, it is possible that changes may have taken place between the gathering of data and publication of this report.

³ WHO regions: WHO African Region (AFR), WHO Region of the Americas (AMR), WHO Eastern Mediterranean Region (EMR), WHO European Region (EUR), WHO South-East Asia Region (SEAR), WHO Western Pacific Region (WPR).

RESULTS

2.1 PARTICIPATION BY MEMBER STATES

- A total of 76 Member States responded to the questionnaire. This represents 49.3% of the 154 Member States that received the questionnaire. Through the participation of experts and active nongovernmental organizations, as well as literature sources, data were also available for a further 19 countries.
- 58.3% (21 of 36) of the low-income, 56.2% (26 of 46) lower-middle-income countries, 34.7% (17 of 49 countries with a WHO office) of upper-middle-income and 52% (12 of 23 countries with a WHO office) of high-income countries responded to the questionnaire (Figure 3).
- Among the WHO regions, the highest participation was from the countries of the South-East Asia Region (91%), followed by the Western Pacific Region (66.6%), the African Region (53.2%), the Region of the Americas (44.8%), the Eastern Mediterranean Region (36.4%) and European Region (33.3%) (Figure 4).



RESULTS

2.2 EPIDEMIOLOGICAL STUDIES FOR PREVALENCE OF HEARING LOSS

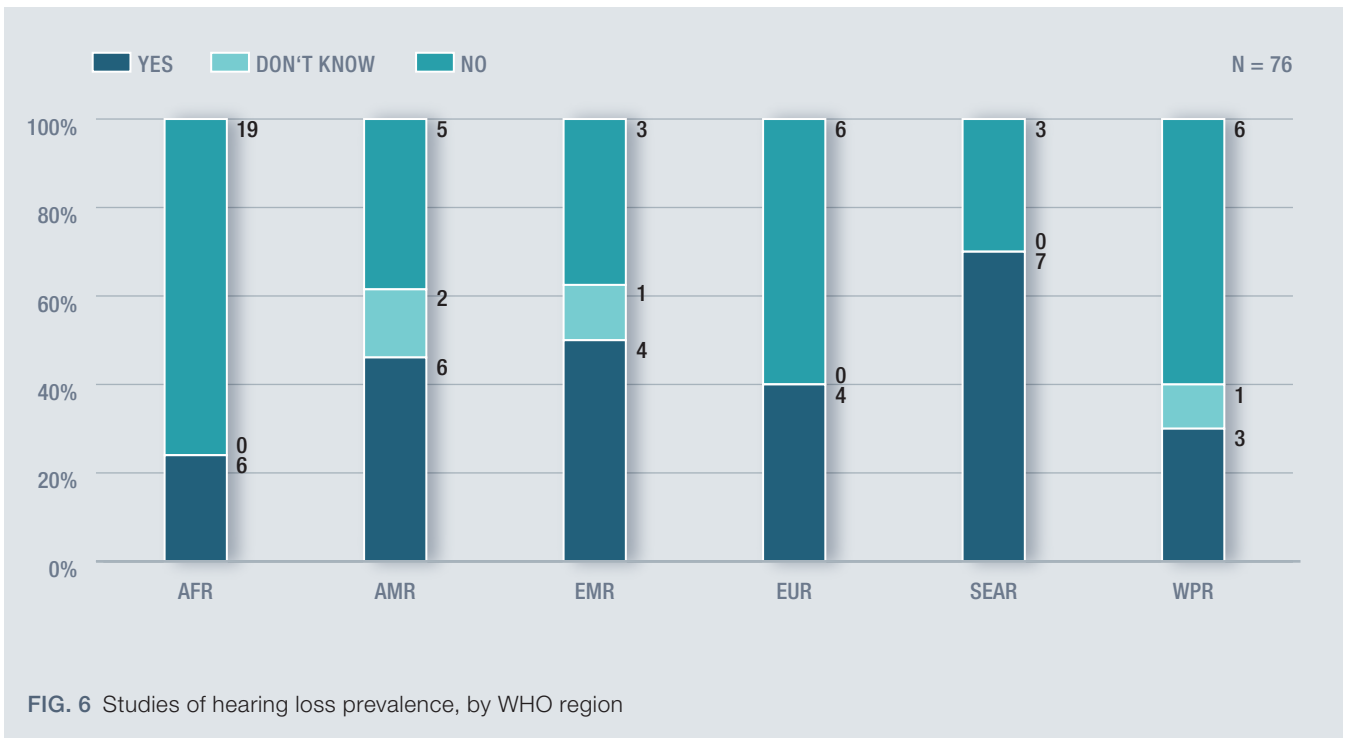
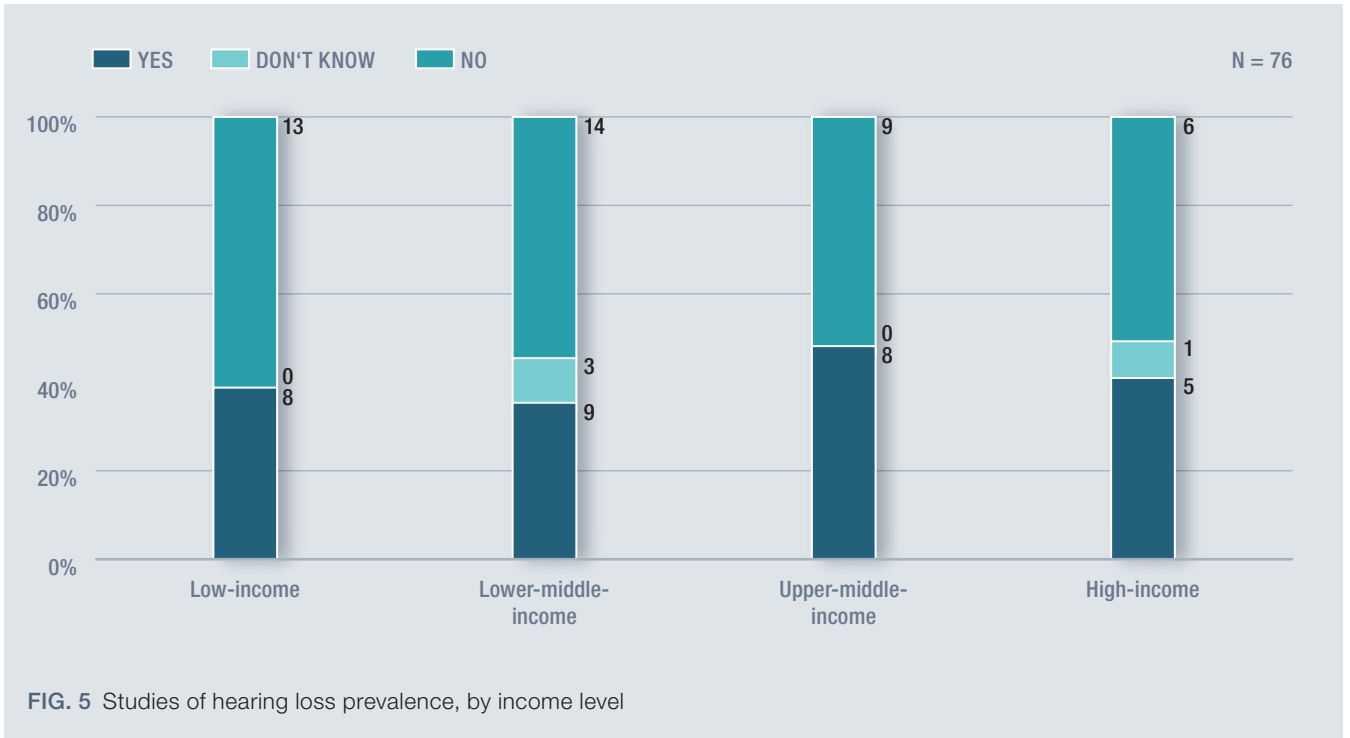
DEFINITION

A study/survey/assessment for prevalence of hearing loss includes only population-based studies/surveys, details of which were provided as a complete report or its reference, specifying the number and profile of population covered. interventions, usually short-term, with a highly focused objective for the promotion of mental health, the prevention of mental disorders, and treatment and rehabilitation.

Respondents were asked if a population-based survey to assess the prevalence of hearing loss had been conducted in the country. Reports for surveys were requested, where available.

KEY POINTS

- Of the 76 responding Member States, 40% (30) reported availability of epidemiological data regarding prevalence of hearing loss. These represent 19.4% of the participating (154) Member States.
- The nature of the data was not consistent across Member States. The 30 studies reported include national and provincial data. The data were not always representative of all sections of the country.
- From the available responses, no apparent relationship was observed between the income level and availability of population-based epidemiological data. Such data were sparse across all income levels. (Figure 5).
- 70% of the participating Member States in the WHO South-East Asia Region reported the availability of population-based epidemiological data for hearing loss. In all other regions, such data were available in few Member States (Figure 6).



RESULTS

2.3 HUMAN RESOURCES AND EDUCATIONAL FACILITIES

Respondents were asked about the status of human resources for provision of ear and hearing care and if there were government-recognized educational facilities for the development of professionals such as ENT specialists, audiologists, speech therapists and teachers for the deaf/hearing impaired.

- 68 of the 76 participants (89.5%) gave an estimate of the number of ENT specialists available. 75% (57) reported on the availability of audiologists and 73% (56) about speech therapists. These responses have been further analysed.
- Only 36 and 27 of the respondents provided details of teachers for the deaf and other hearing loss-related specialists, respectively. This information has not been further analysed in view of the incomplete data.

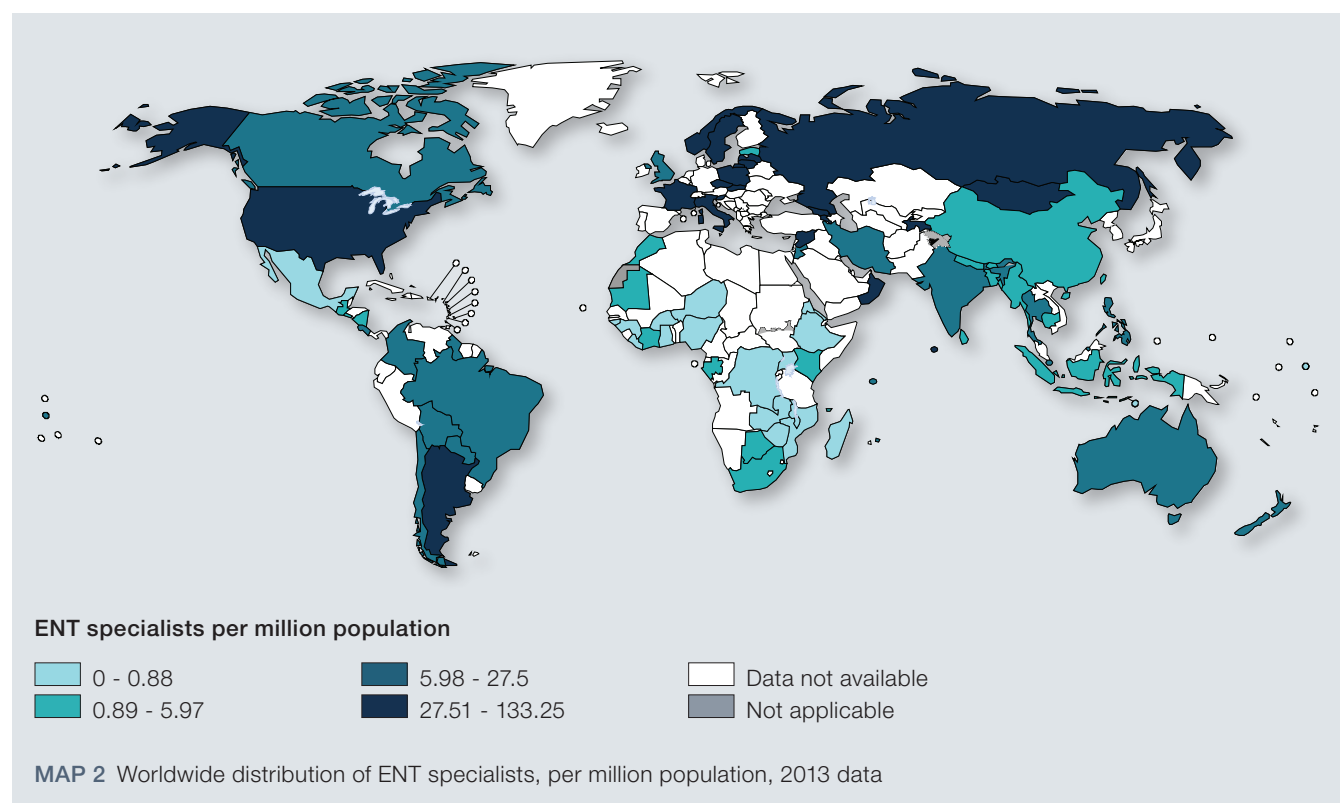
2.3.1 ENT SPECIALISTS

DEFINITION

'ENT specialist' refers to medical doctors who have received training in management of diseases of ear, nose and throat, through a recognized degree or diploma course.

KEY POINTS

- 68 Member States responded with information about the number of ENT specialists in the country.
- The proportion of respondents with more than one ENT specialist per million appears to vary with income level (Figure 7).
- From the responses, it appears that there is an inequitable distribution among the WHO regions. 90% of the South-East Asia Region has more than one ENT specialist per one million population.
- 75% of the Western Pacific Region countries report over one ENT specialist per million population. On the other hand, 64% of the respondents from the African Region reported availability of less than one ENT specialist per million population (Figure 8).
- Data available from alternate sources of information (other than ministries of health) were also analysed. This corroborated the trends observed between income level and number of ENT specialists available. The combined results are reflected in the map below.



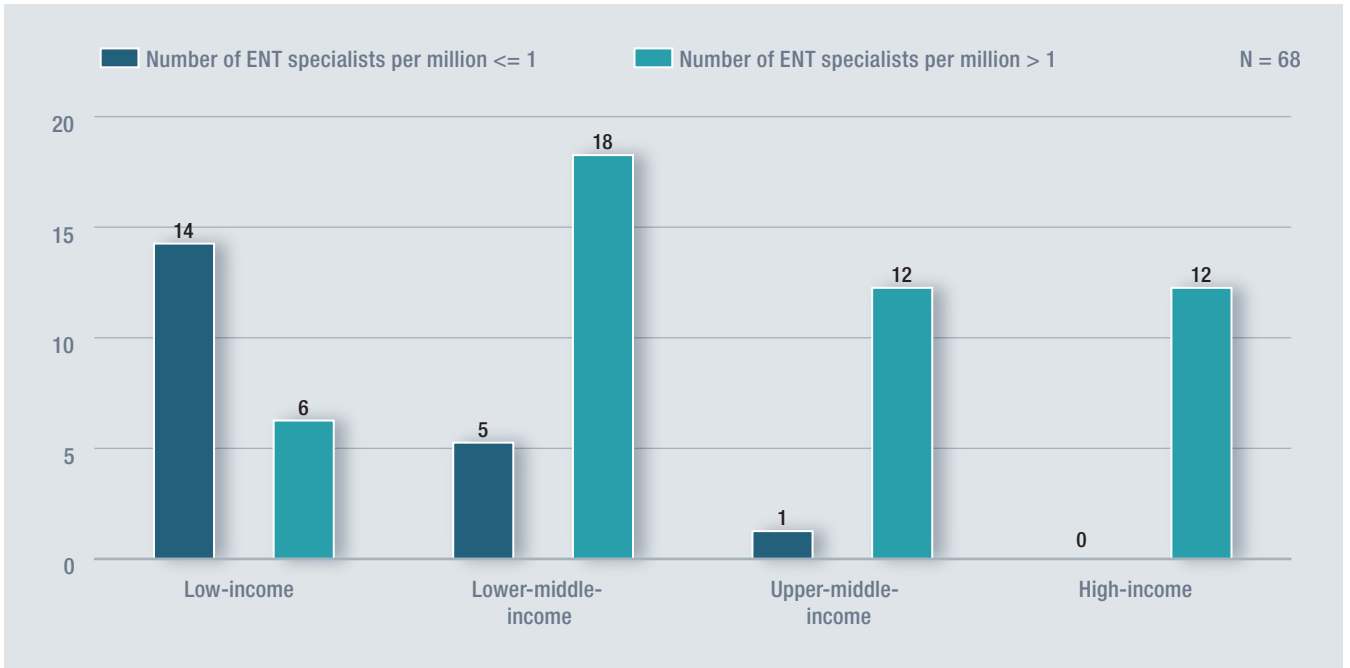


FIG. 7 Number of ENT specialists per million population, by income level

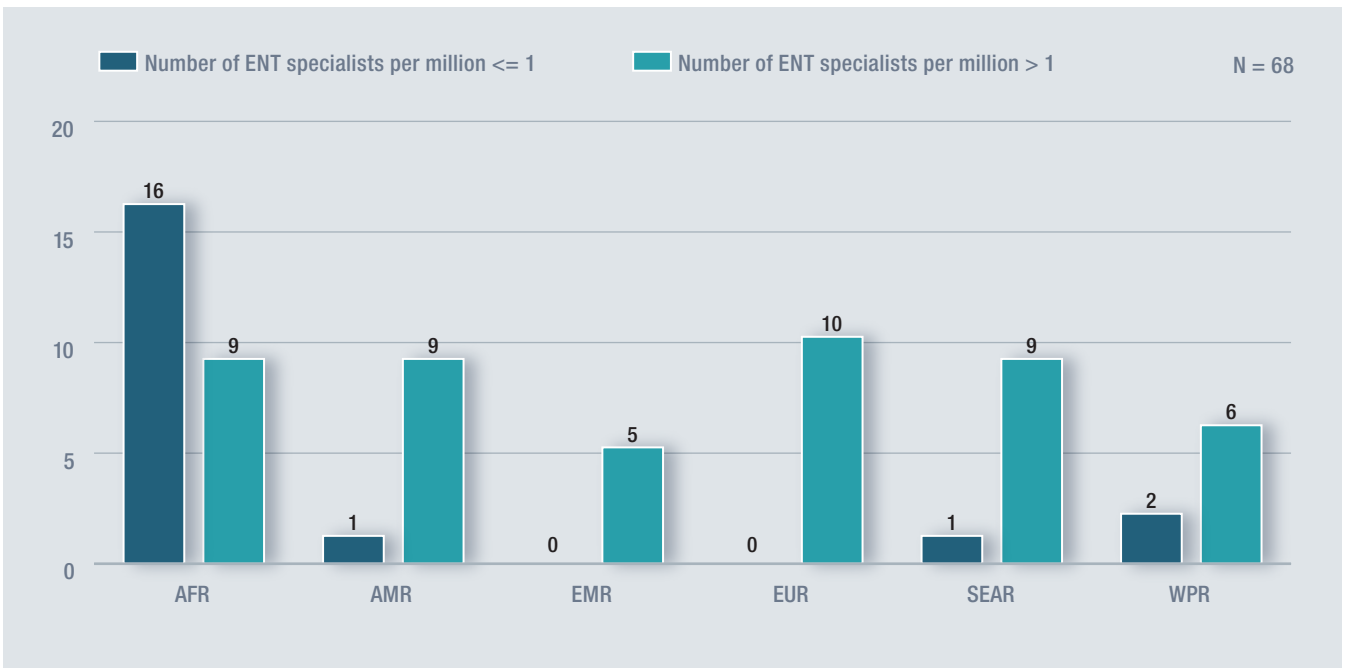


FIG. 8 Number of ENT specialists per million population, by WHO region

RESULTS

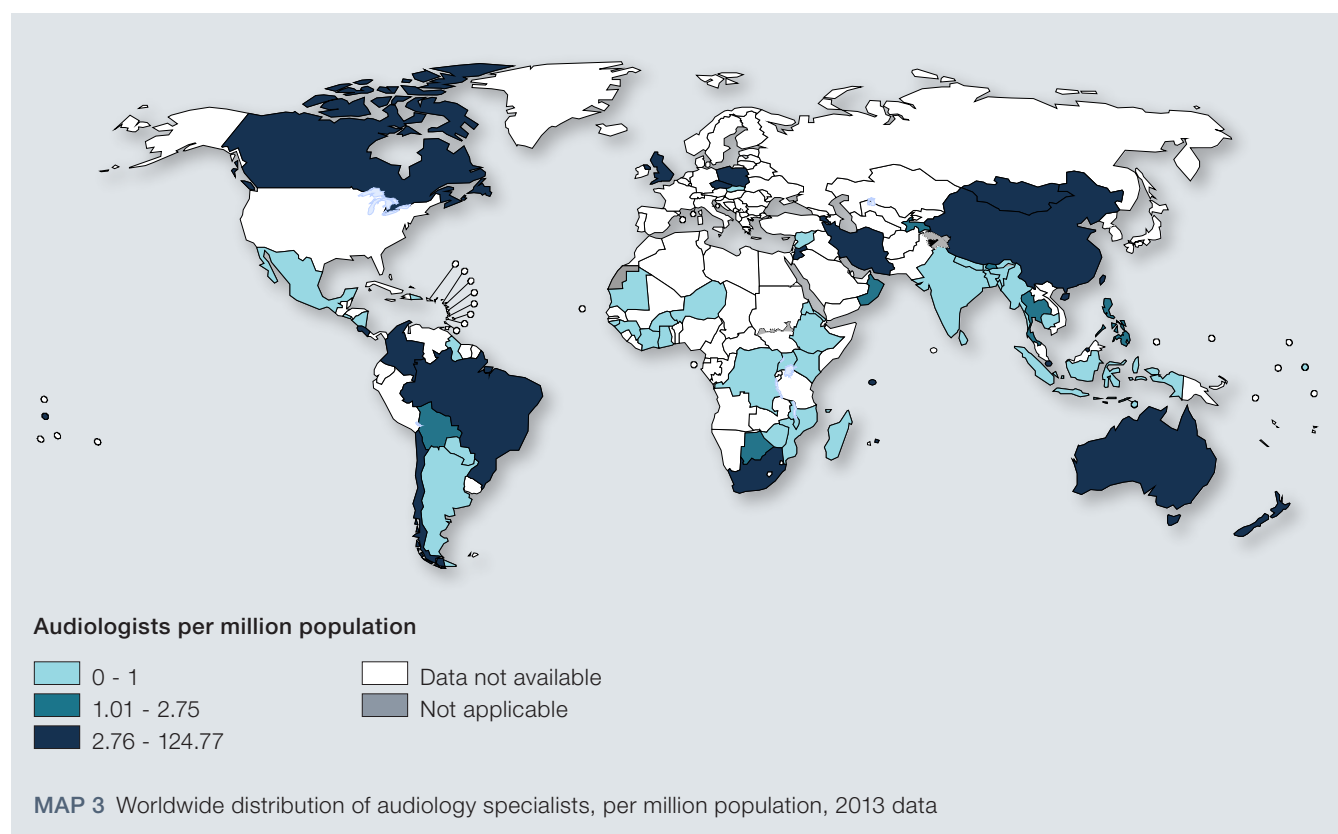
2.3.2 AUDIOLOGISTS

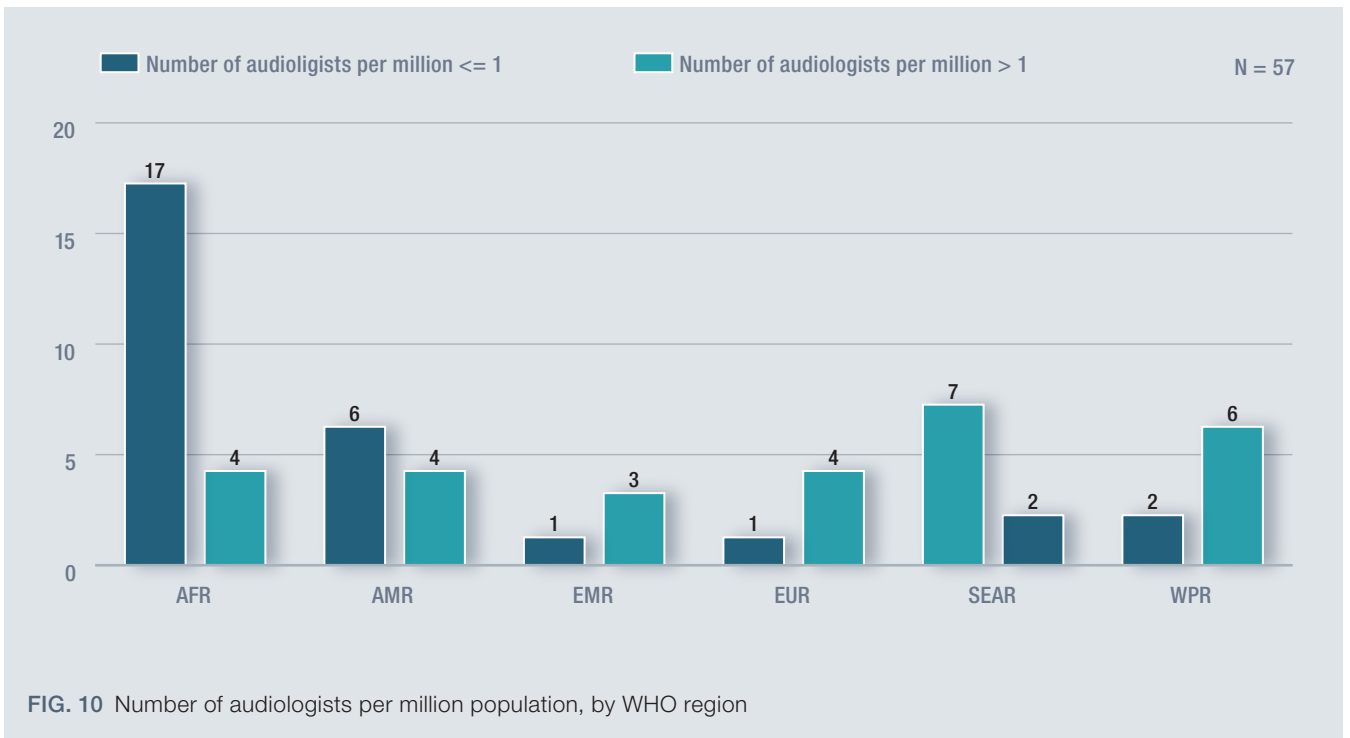
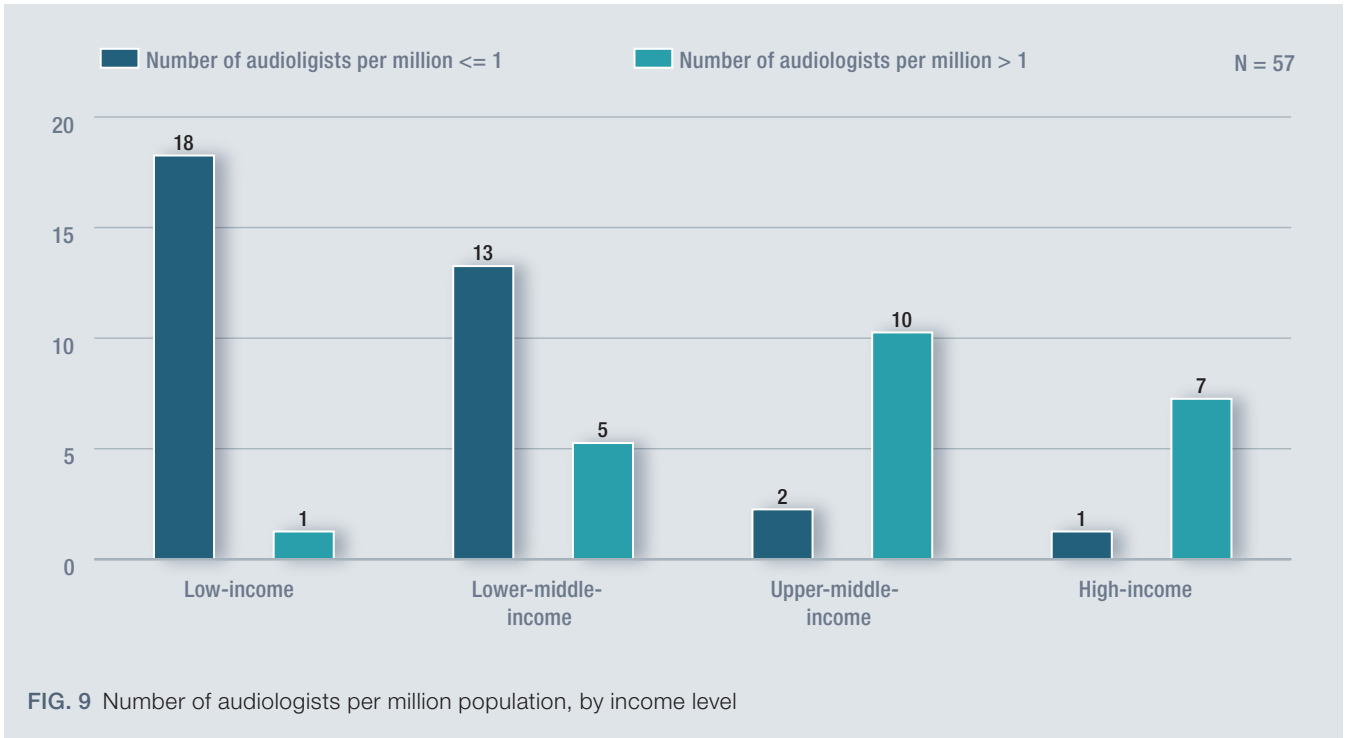
DEFINITION

'Audiologist' refers to a person having undergone a recognized degree or diploma course in audiology.

KEY POINTS

- Among the responding countries (N=57), 40% had more than one audiologist per million population.
- The availability of audiologists varies with income level. 83.3% and 87.5% of the respondents from upper-middle and high-income countries respectively reported the availability of more than one audiologist per million population. Only 5.2% of low-income countries and 27.7% of lower-middle-income countries were in this category (Figure 9).
- Among the WHO regions, 7 of the 9 (77.7%) respondents from the South-East Asia Region reported the availability of less than one audiologist per million population.
- 75% of the respondents from the Western Pacific Region reported more than one audiologist per million population. 81% of respondents from the African Region reported the availability of less than one audiologist per million population. The responses from other WHO regions are depicted in Map 3, but these are insufficient to assess significance (Figure 10).
- Data available from alternate sources of information (other than ministries of health) were also analysed and corroborated the trends observed. The combined results are reflected in Map 3.





RESULTS

2.3.3 SPEECH THERAPISTS

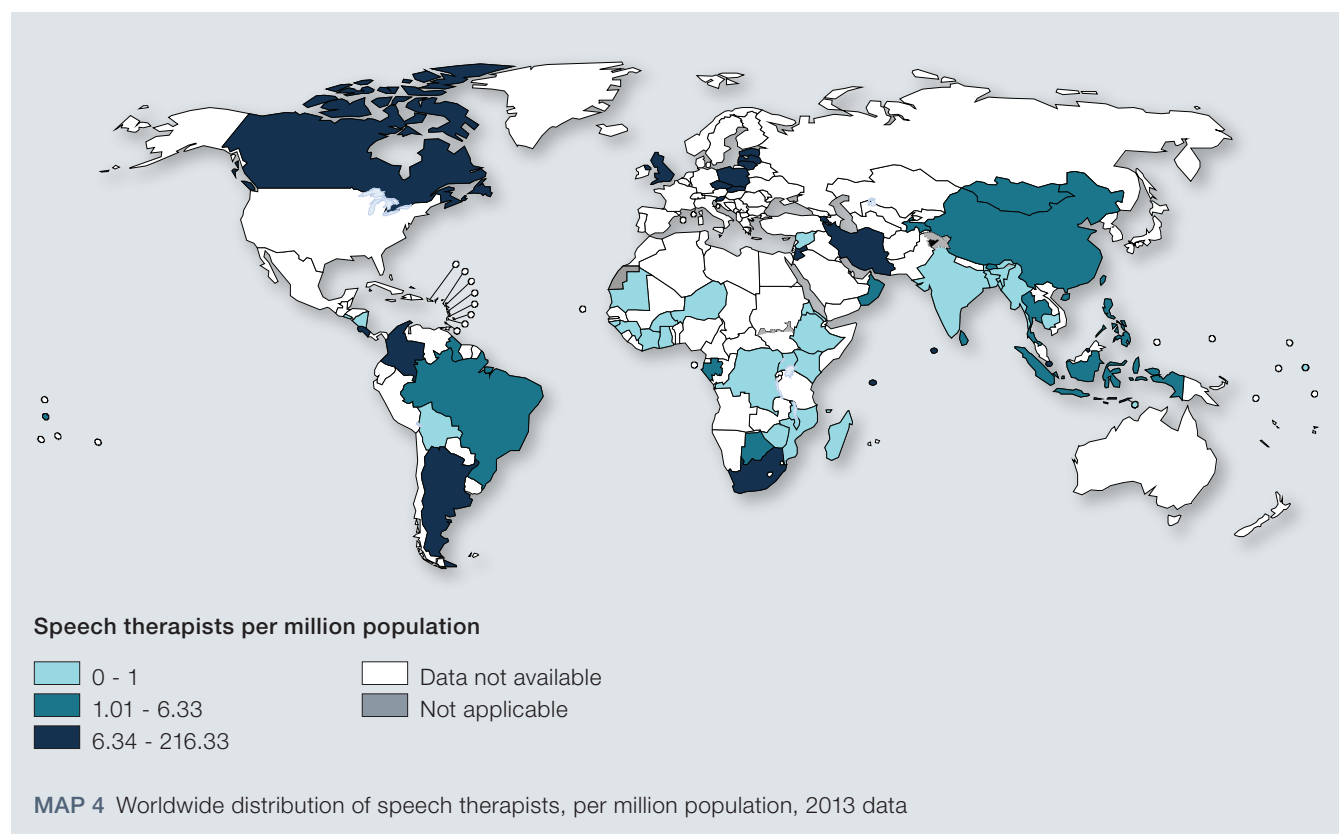
DEFINITION

'Speech therapist' refers to a person having a recognized diploma or degree in speech therapy. In some countries, speech therapy is a part of audiology training.

KEY POINTS

- 56 of the 76 respondents reported on the availability of speech therapists in their countries. Of these, 52% had more than one speech therapist per million population.
- Within the income groups, a trend was observed with respondents from upper-middle and high-income countries having more than one speech therapist per million population. 41% (7) of lower-middle-income countries and 5.5% (1) low-income country respondents reported the availability of over one speech therapist per million population (Figure 11).

- Among the WHO regions, 55.5% of responding countries from the South-East Asia Region reported the availability of over one speech therapist per million population.
- 19% of the respondents from the African Region had at least one speech therapist per million population. The responses from other WHO regions are depicted in Figure 12, but these are inadequate to assess significance.
- Data available from alternate sources of information (other than ministries of health) were also analysed. The combined results are reflected in Map 4.



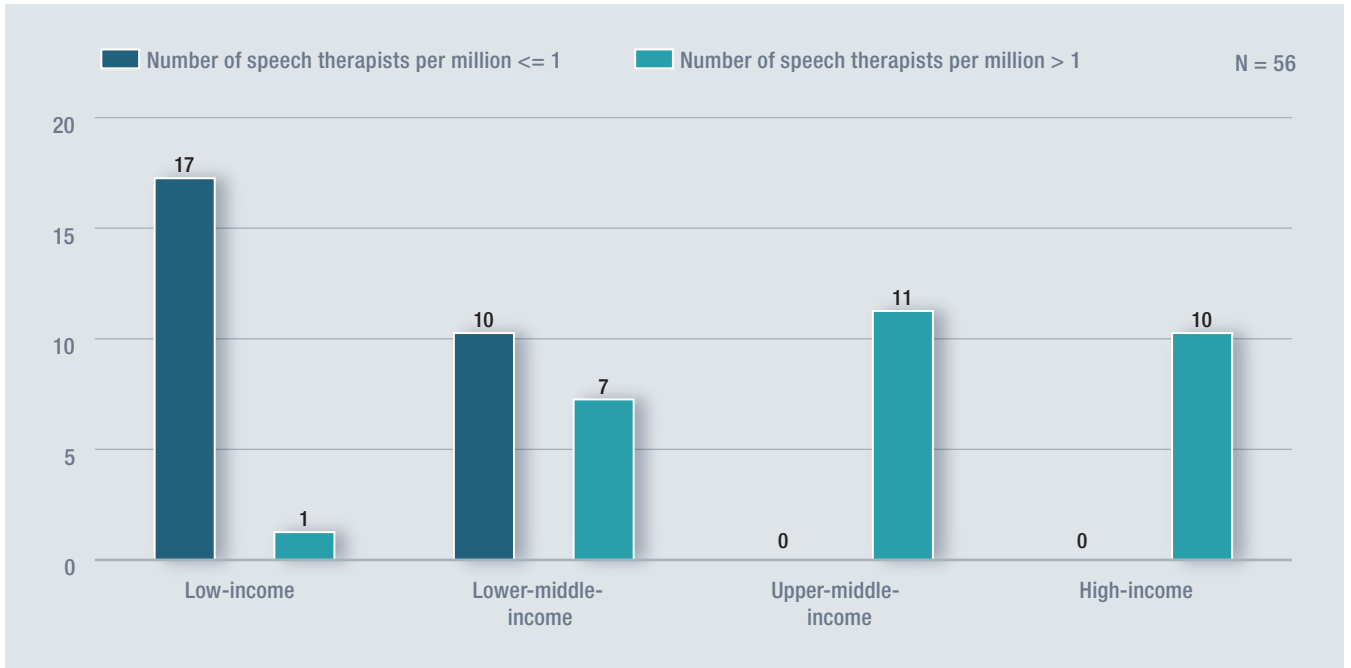


FIG. 11 Density of speech therapists per million population, by income level

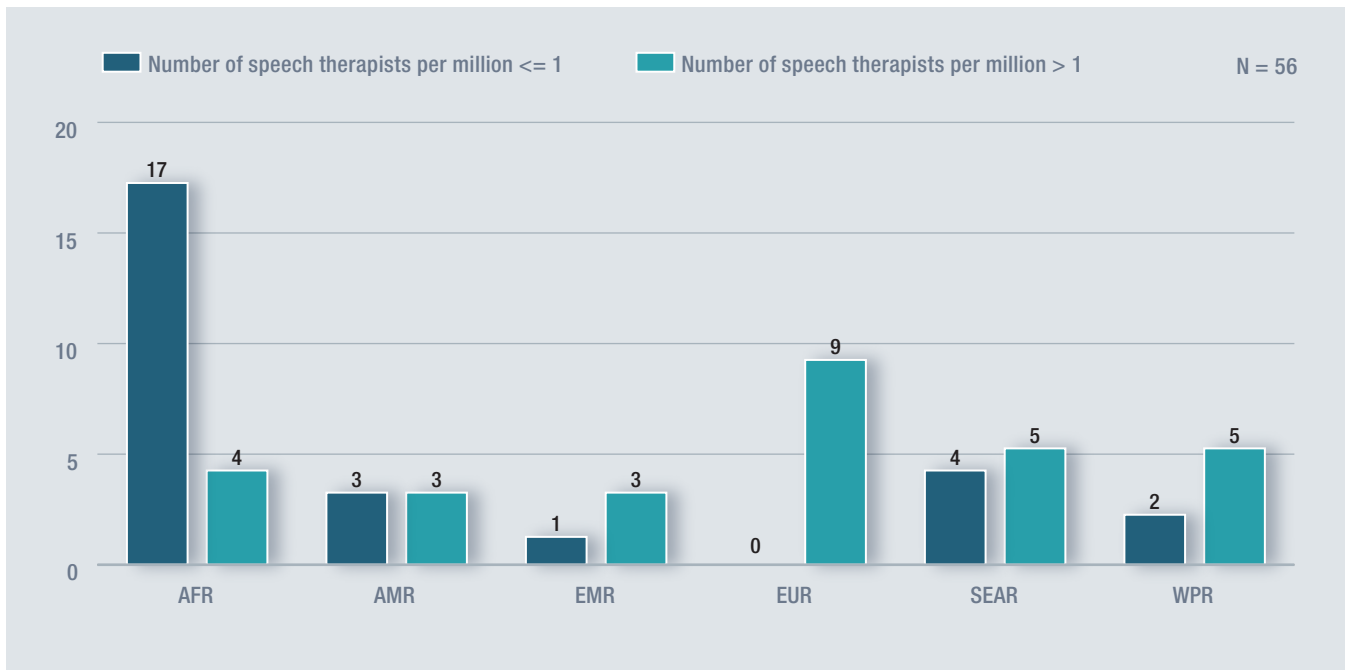


FIG. 12 Density of speech therapists per million population, by WHO region

RESULTS

2.3.4 EDUCATIONAL FACILITIES FOR THE DEVELOPMENT OF PROFESSIONALS IN THE COUNTRY

DEFINITION

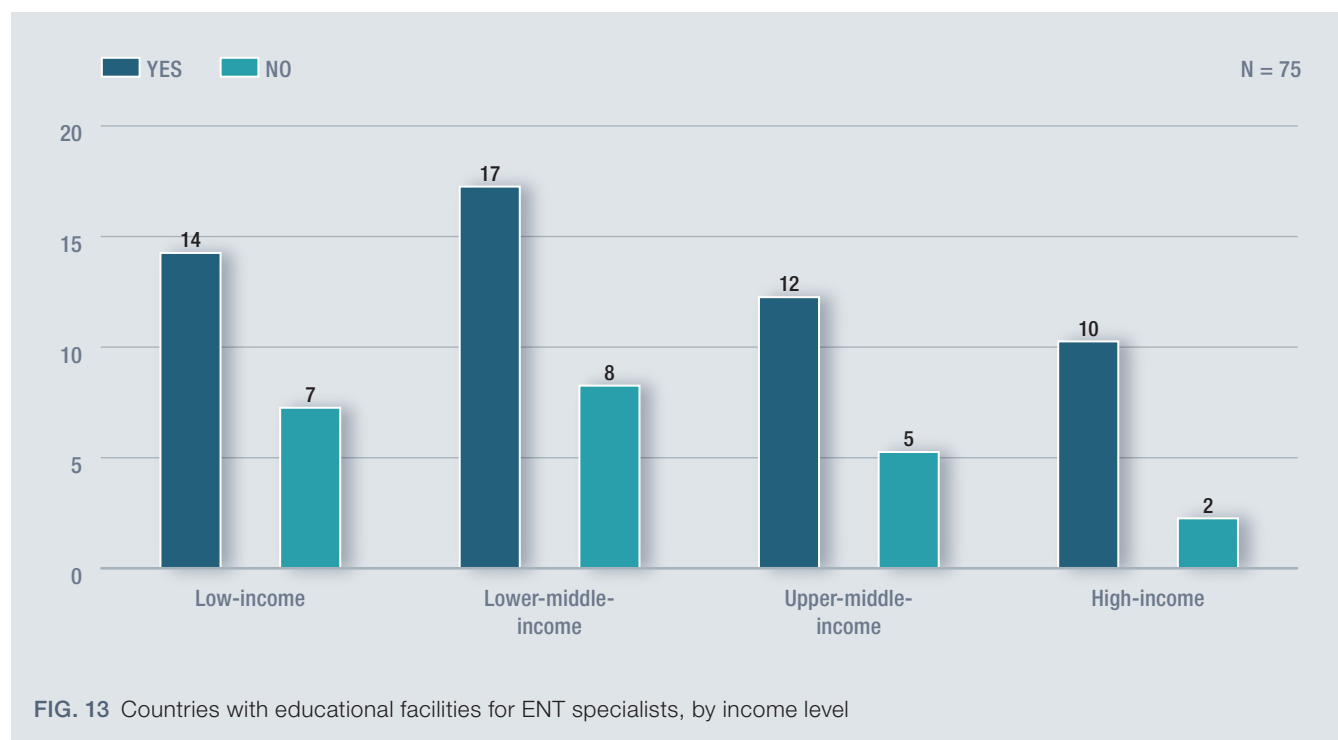
An 'educational facility' refers to government-recognized institutes and training centres.

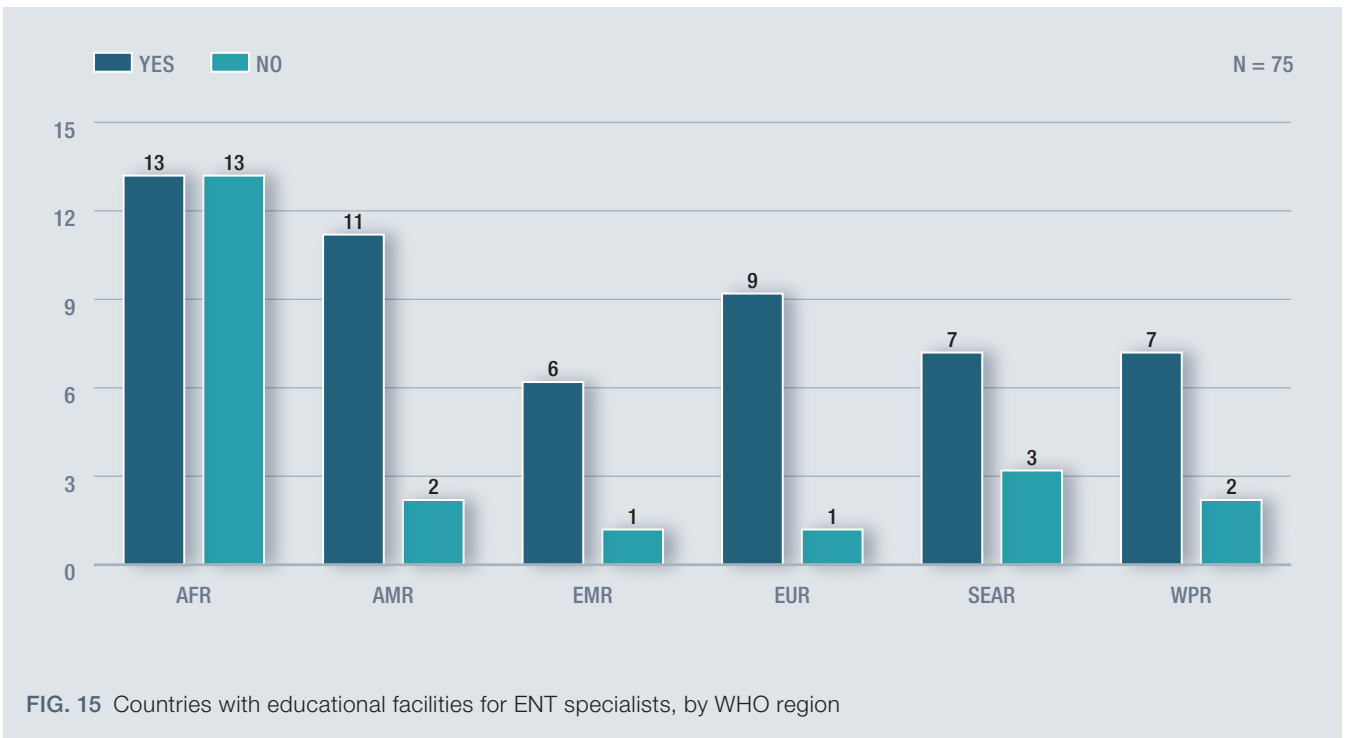
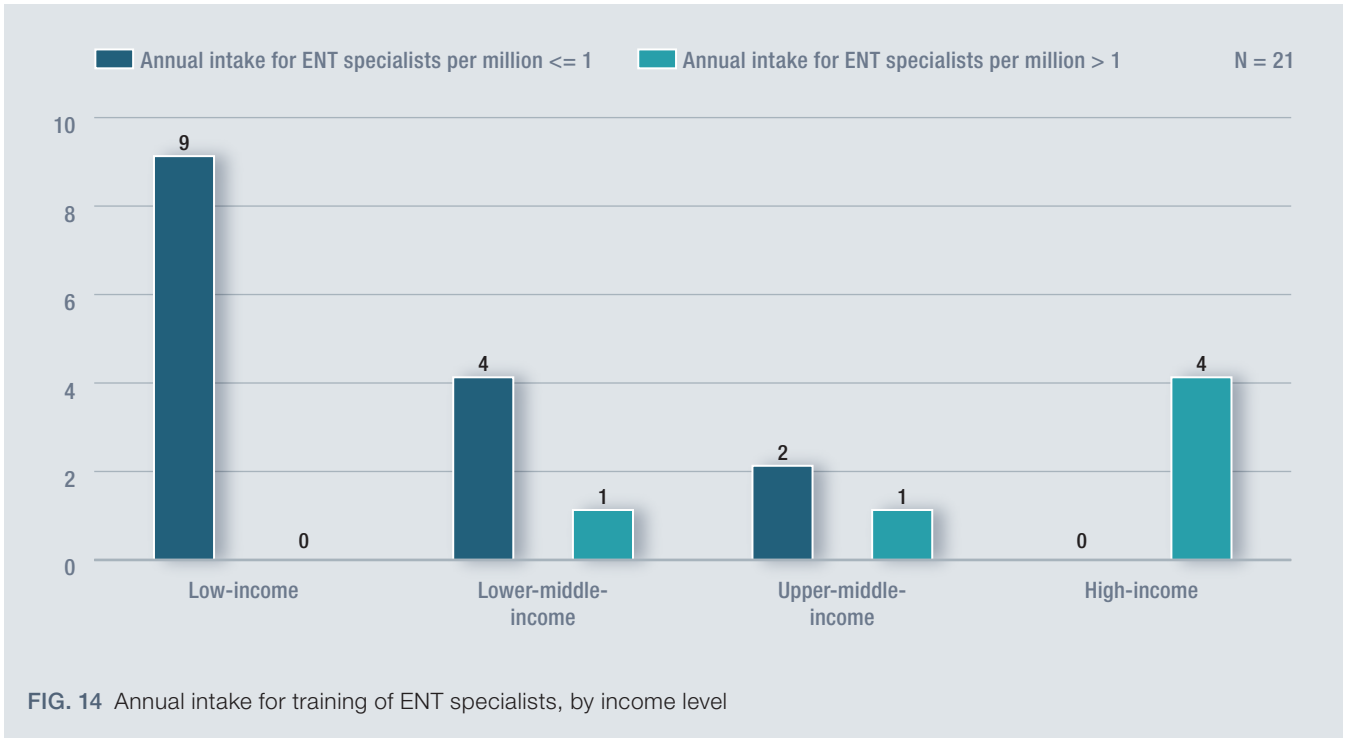
We aimed to assess the availability of training facilities in Member States for providing ear and hearing care services. A question was posed to assess the nature and number of educational facilities available in the country for training of ENT specialists, audiologists, speech therapists and educators/teachers for the deaf. The availability and annual intake of such teaching programmes was sought.

ENT SPECIALISTS

KEY POINTS

- Among the responding countries (N=75), 71% of the countries confirmed having educational facilities for ENT specialists.
- Only a few Member States provided details of the number of ENT specialists trained annually. A preliminary analysis of this data shows greater training opportunities in the high- and upper-middle-income countries. The significance of this analysis is limited by the low response rate (Figure 14).
- Among the WHO regions, 70% (7) of respondents from the South-East Asia Region reported availability of such facilities.
- In the African Region, 50% of respondents reported availability of facilities for training of ENT specialists. The responses from other WHO regions, depicted in Figure 15, are inadequate to attribute significance.





RESULTS

AUDIOLOGISTS

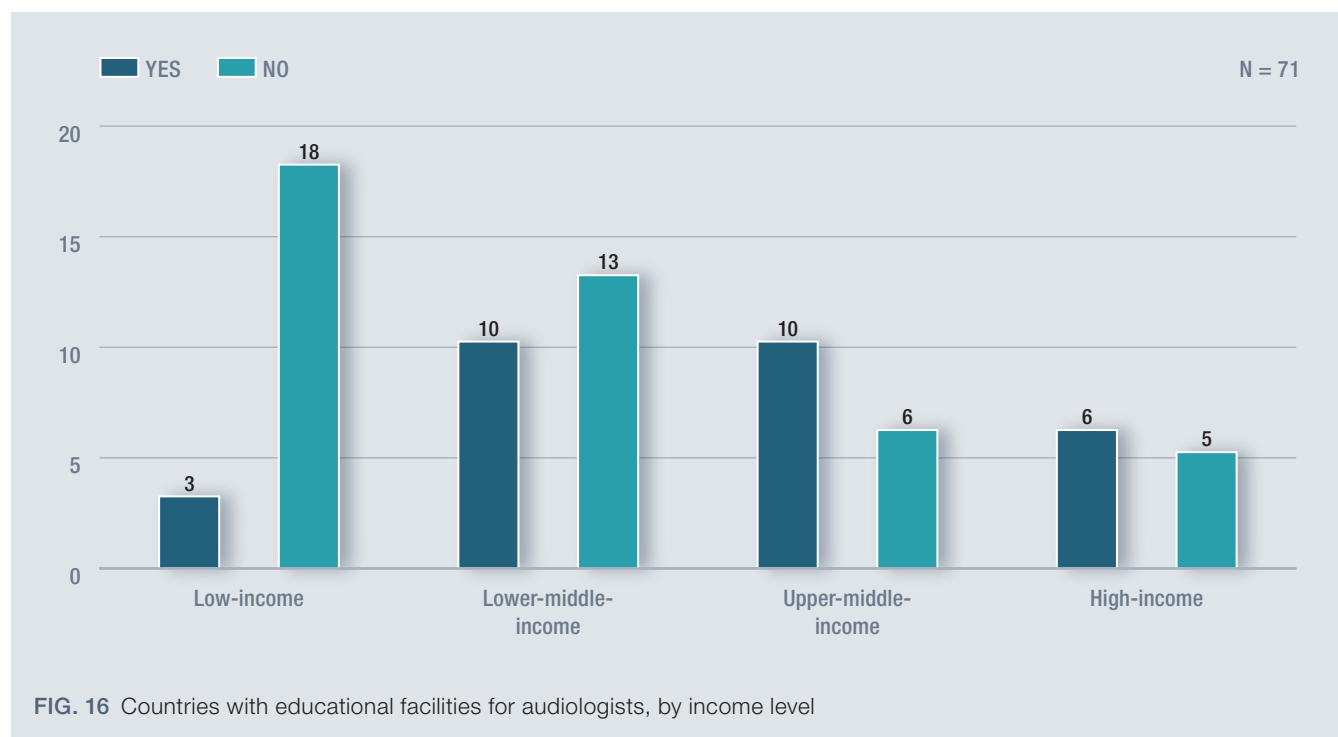
KEY POINTS

- Among responding countries (N=71), 41% have facilities for training of audiologists.
- 54.4% and 62.5% of the respondents from high-income and upper-middle countries respectively, reported the availability of educational facilities. 14.2% of low-income countries and 43% of lower-middle-income countries were in this category (Figure 16).
- Among the WHO regions, 30% of respondents from the South-East Asia Region reported availability of such facilities.
- 20% of respondents from the African Region reported availability of educational facilities for training of audiologists within the country. The responses from other WHO regions are depicted in Figure 17, but these are insufficient to assess significance.

SPEECH THERAPISTS

KEY POINTS

- 69 of the participating countries responded to the question about availability of educational facilities for their speech therapists. 44% of the countries stated having such facilities.
- The availability of educational facilities in the countries appears to vary with income level. 66.6% and 70% of the respondents from upper-middle and high-income countries respectively, reported the availability of such educational facilities. 14.2% of low-income countries and 48% of lower-middle-income countries were in this category (Figure 16).
- Among the WHO regions, 66.6% of the respondents from the Western Pacific Region reported availability of educational facilities for speech therapists. 50% of respondents from the South-East Asia Region and 15.3% from the African Region reported such facilities (Figure 19).



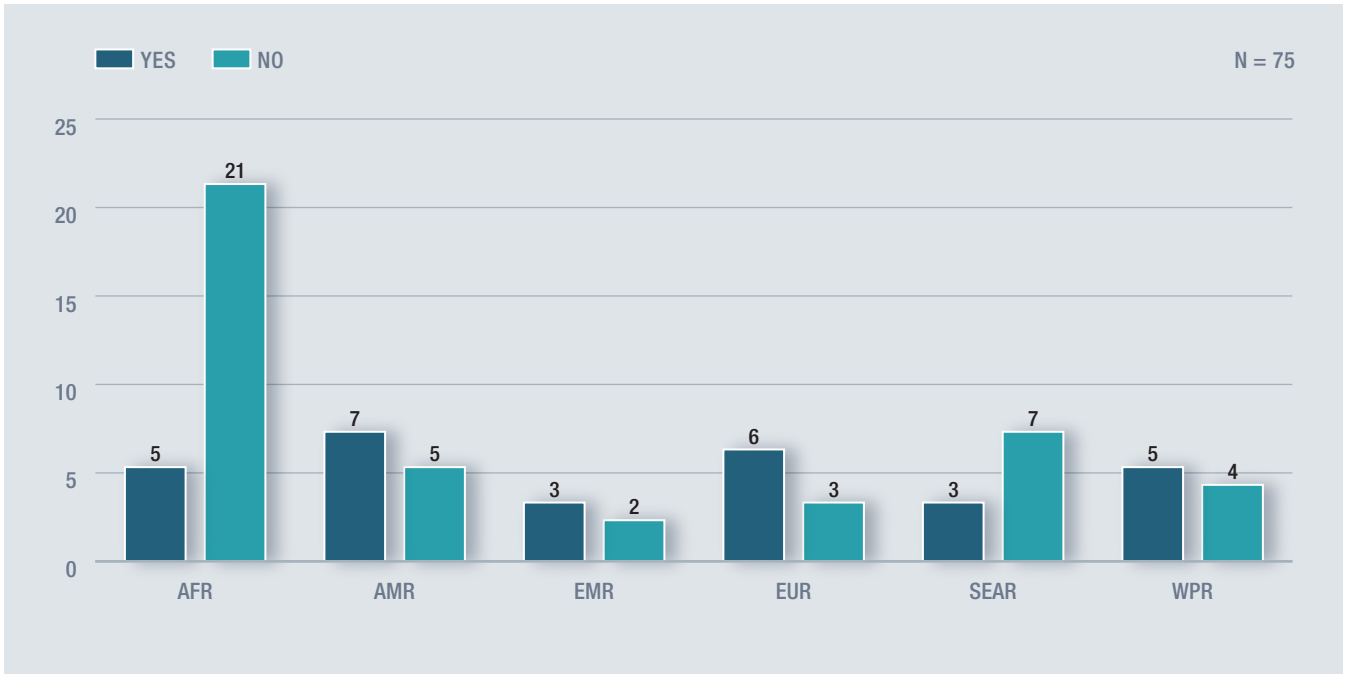


FIG. 17 Countries with educational facilities for audiologists, by WHO region

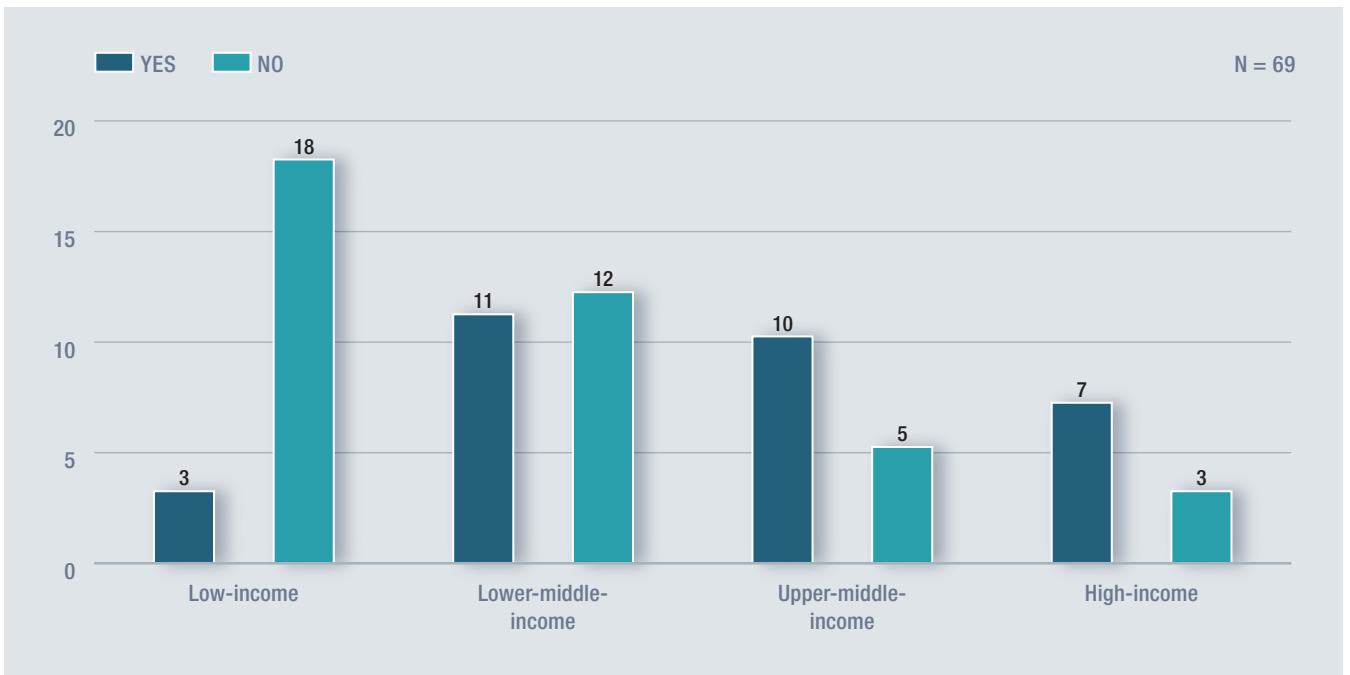
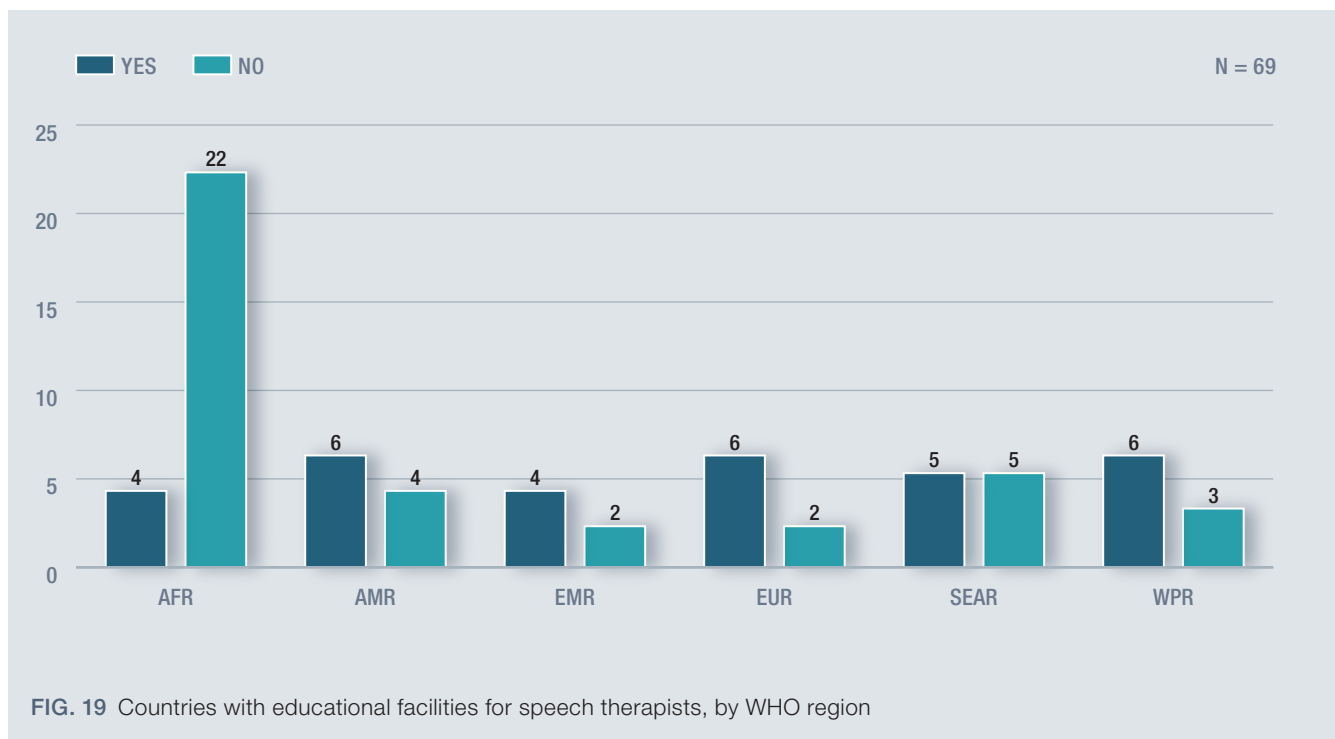


FIG. 18 Countries with educational facilities for speech therapists, by income level

RESULTS



EDUCATORS/TEACHERS FOR DEAF/HEARING IMPAIRED

KEY POINTS

- Among the responding countries (N=60), 48.3% stated having facilities for training of teachers for deaf.
- The availability of educational facilities in the countries seems to vary with income level. 61.5% and 62.5% of the respondents from upper-middle and high-income countries respectively, reported the availability of such educational facilities. Such facilities were available in 37% of low-income and 45% of lower-middle-income countries that responded (Figure 20).
- Among the WHO regions, 50% of the respondents from the South-East Asia Region reported availability of educational facilities for teachers of the deaf/hearing impaired.
- 55.5% of respondents from the Western Pacific Region and 45.4% from the African Region have facilities for training of speech therapists (Figure 21).

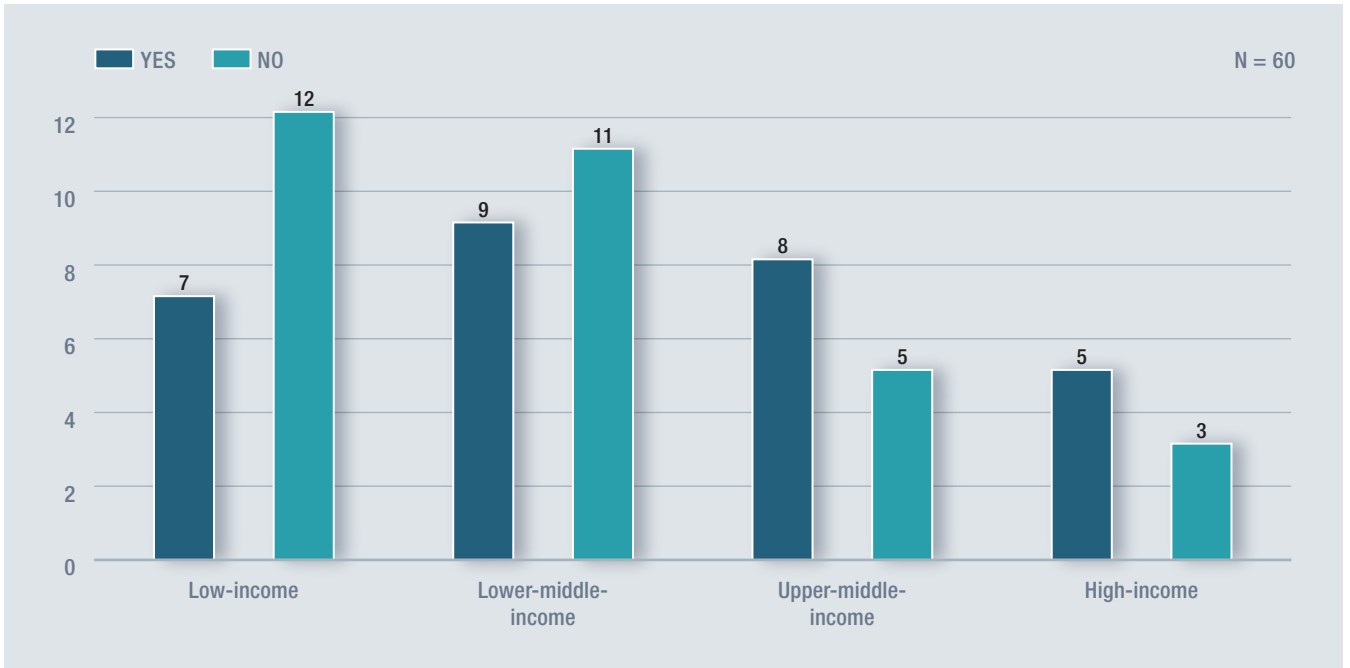


FIG. 20 Countries with educational facilities for educators/teachers for deaf/hearing impaired, by income level

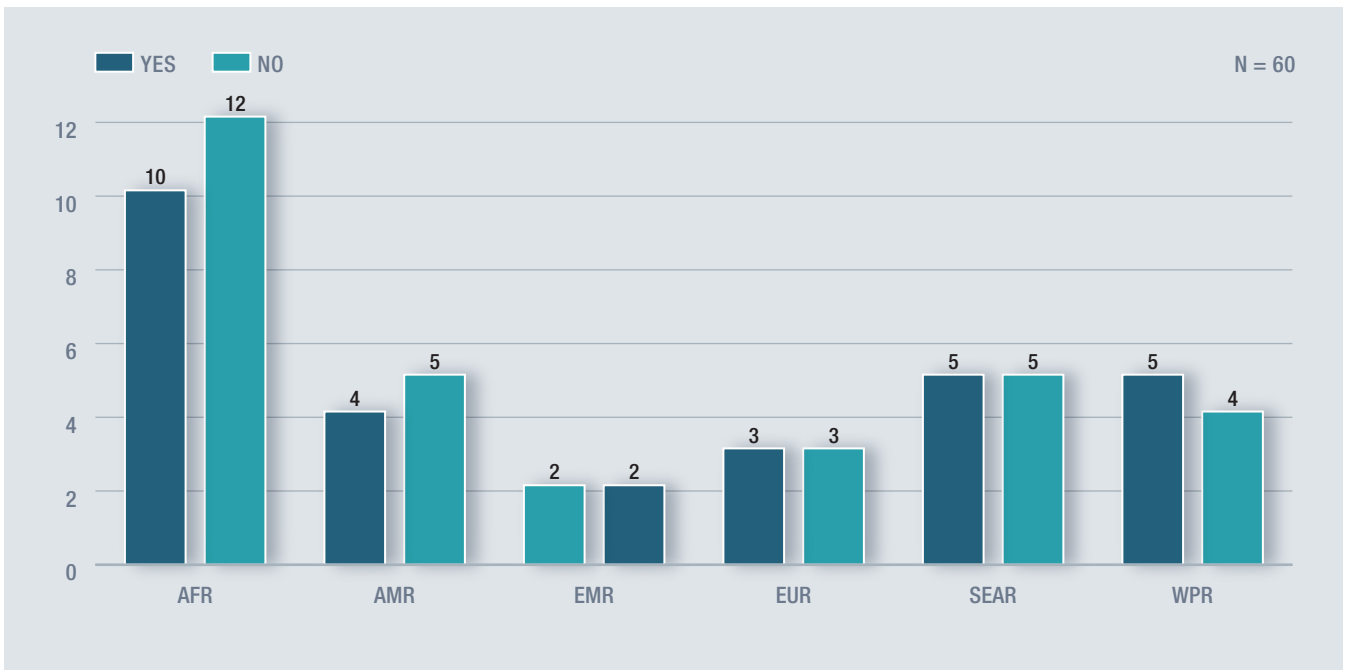


FIG. 21 Countries with educational facilities for educators/teachers for deaf/hearing-impaired, by WHO region

RESULTS

2.4 NATIONAL COMMITTEE FOR EAR AND HEARING CARE OR PREVENTION OF HEARING LOSS

DEFINITION

'National committee' refers to a formal body appointed by the government to address ear diseases and hearing loss in the country and/or develop related plans.

Respondents were asked about a government-appointed national committee for ear and hearing care and prevention of hearing loss in the country. Information was sought about which ministries/governmental departments are represented on the committee. Status of professional groups, academia, nongovernmental agencies, UN bodies and others on this committee was assessed. An effort was made to define the major responsibilities of such committees, whether technical, financial or administrative.

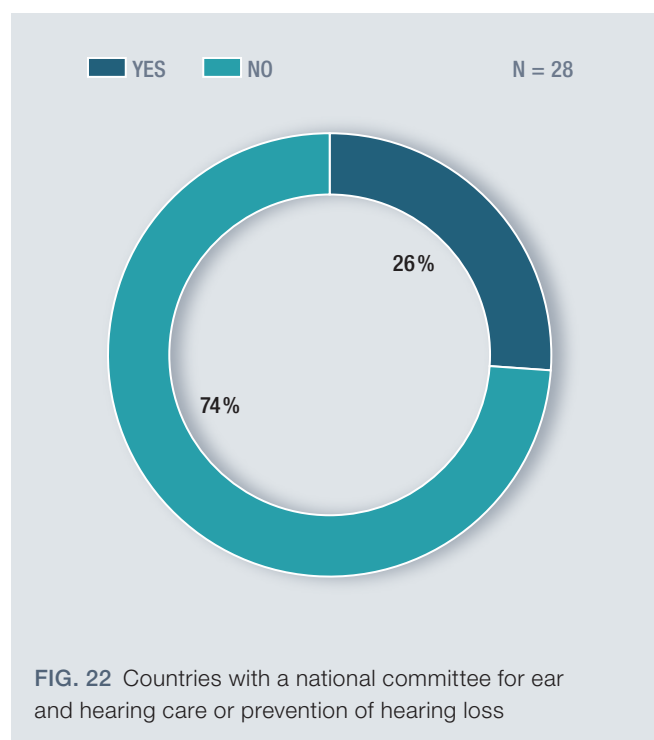


FIG. 22 Countries with a national committee for ear and hearing care or prevention of hearing loss

2.4.1 ESTABLISHMENT OF A NATIONAL COMMITTEE FOR EAR AND HEARING CARE

KEY POINTS

- 20 of the 76 participants (26%) reported the presence of a national committee. These responses have been further analysed. 54 (74%) reported that there were no such committees.
- The availability of a national committee does not appear to relate to the income level of the countries. 41% and 25% of the respondents from upper-middle and high-income countries respectively, reported the presence of such a committee. Among the low- and lower-middle-income countries, such committees were reported from 14% and 26% respectively (Figure 23).
- Among the WHO regions, 70% of the respondents from the South-East Asian Region confirmed the presence of national committees for ear and hearing care.
- 30% of the respondents from the Western Pacific Region had formed such a committee. In the African Region, such committees were reported by 7.6% of respondents. The responses from other WHO regions are depicted in Figure 22, but the number of participating Member States is too small to attribute significance.
- Information regarding national committees was also received from an additional seven Member States through other sources. The combined data on national committees is depicted below (Map 5).

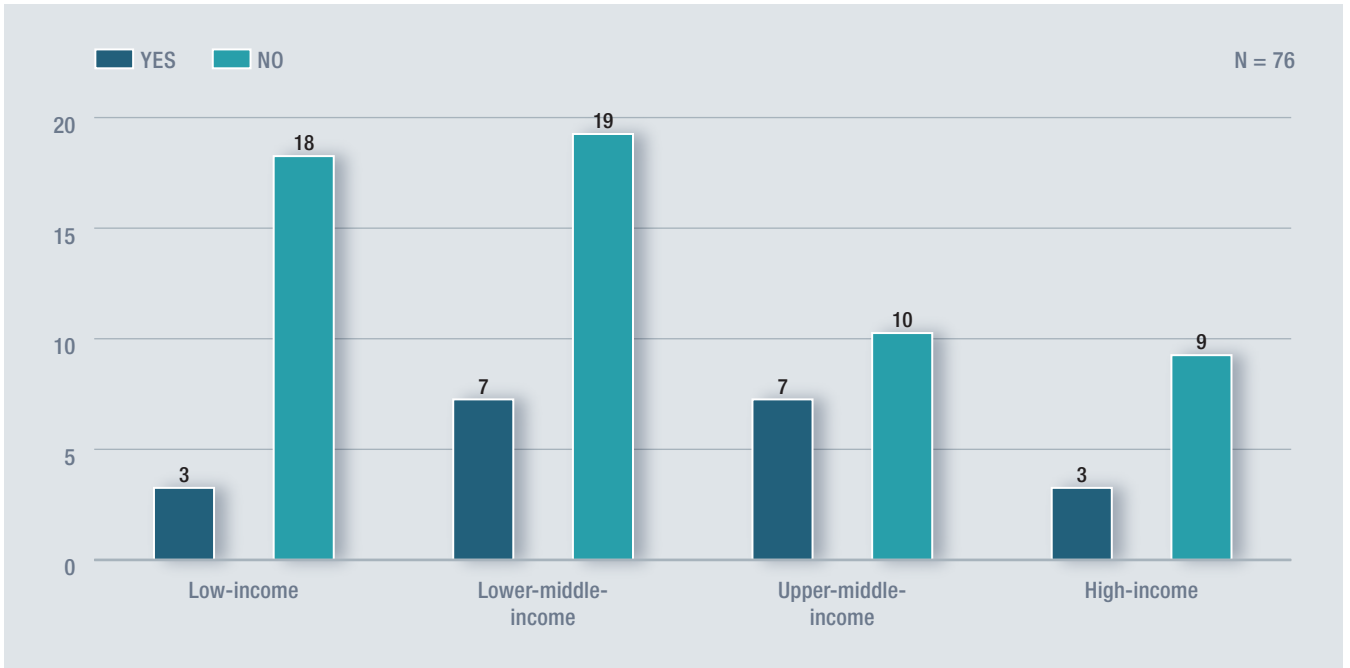


FIG. 23 Countries with a national committee for ear and hearing care or prevention of hearing loss, by income level

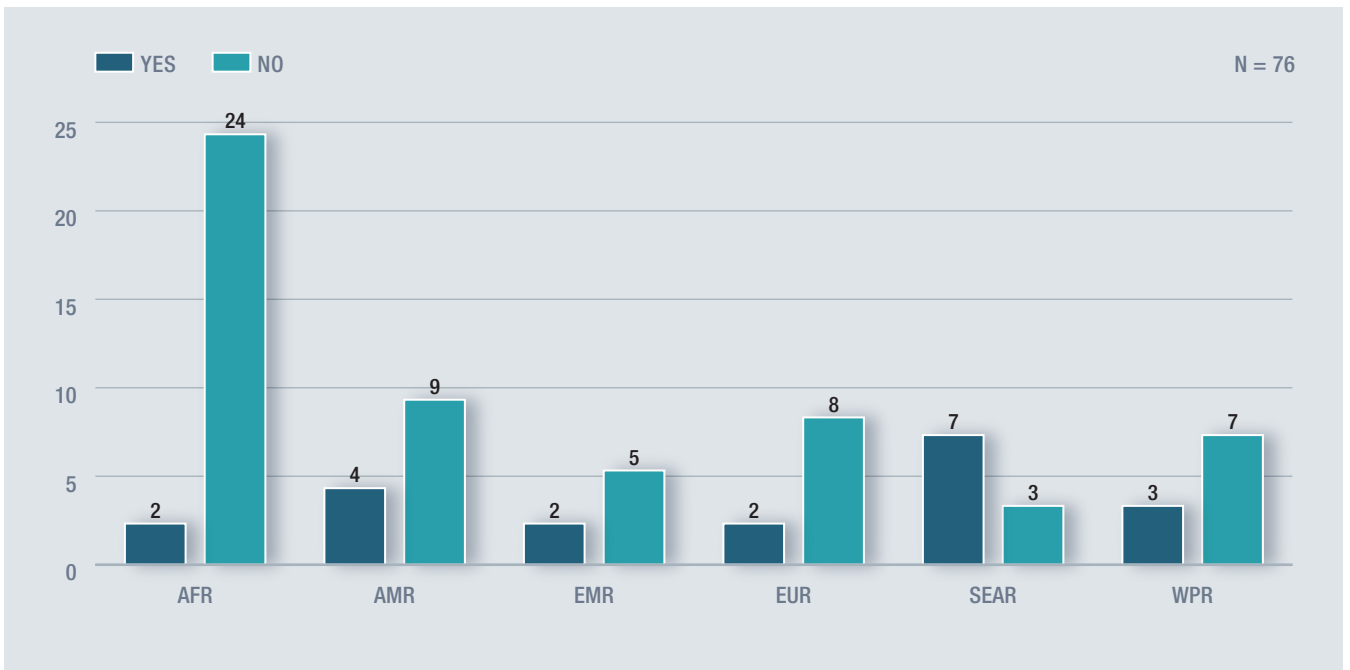
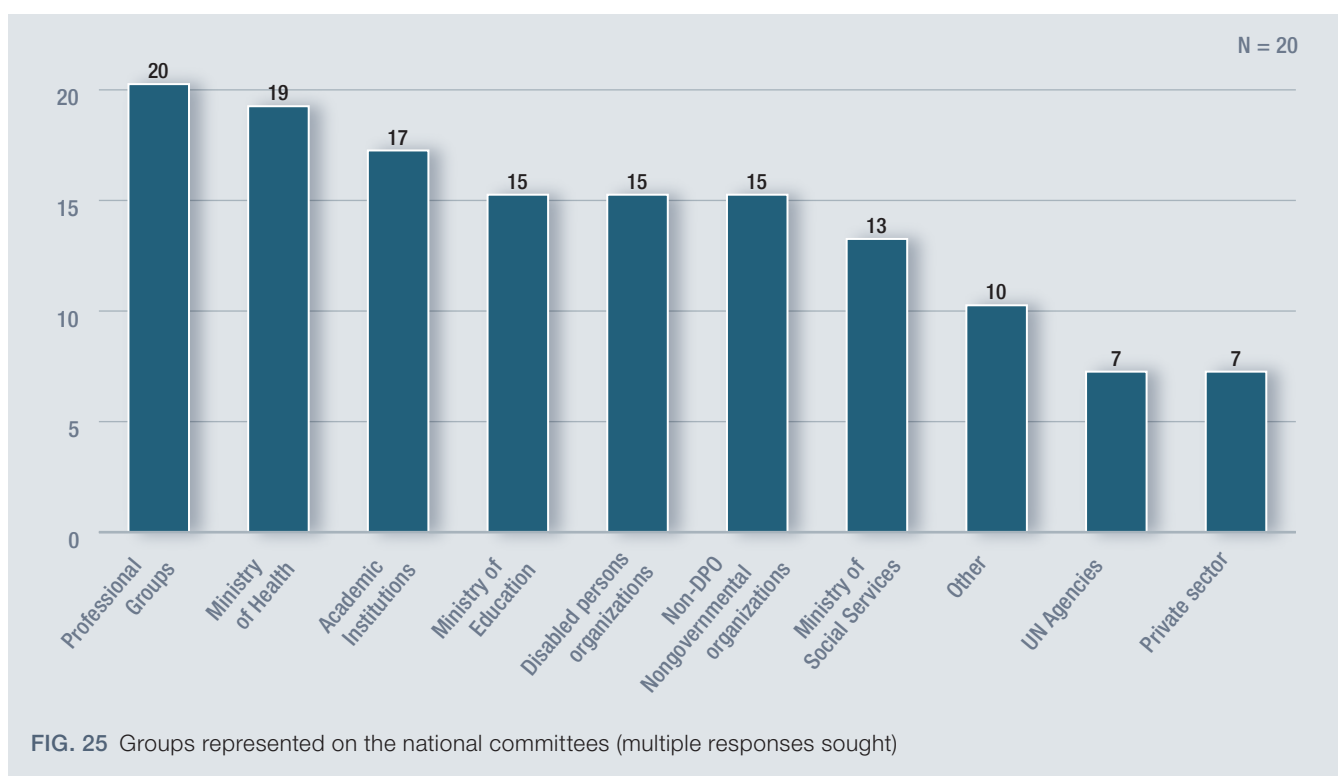
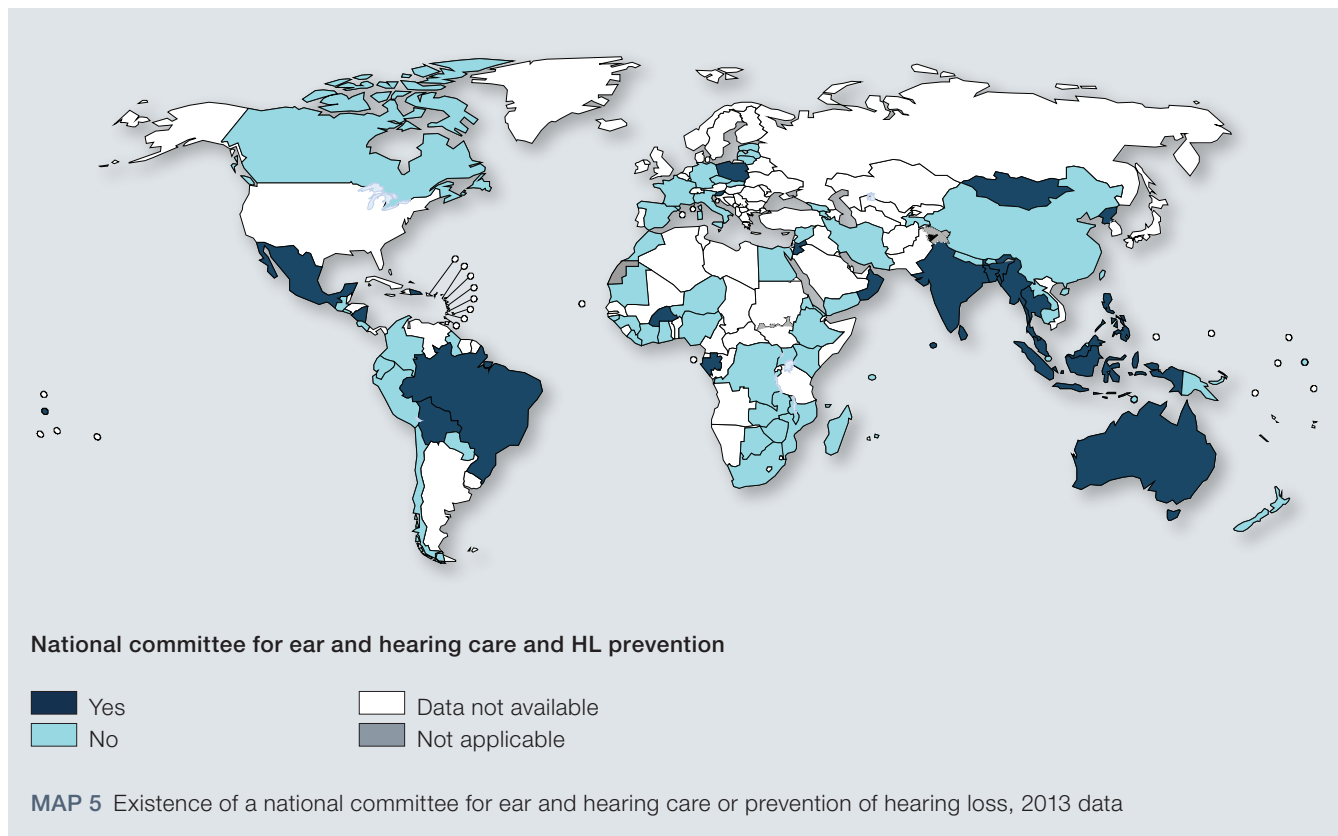


FIG. 24 Countries with a national committee for ear and hearing care or prevention of hearing loss, by WHO region

RESULTS



2.4.2 GROUPS REPRESENTED ON THE COMMITTEE

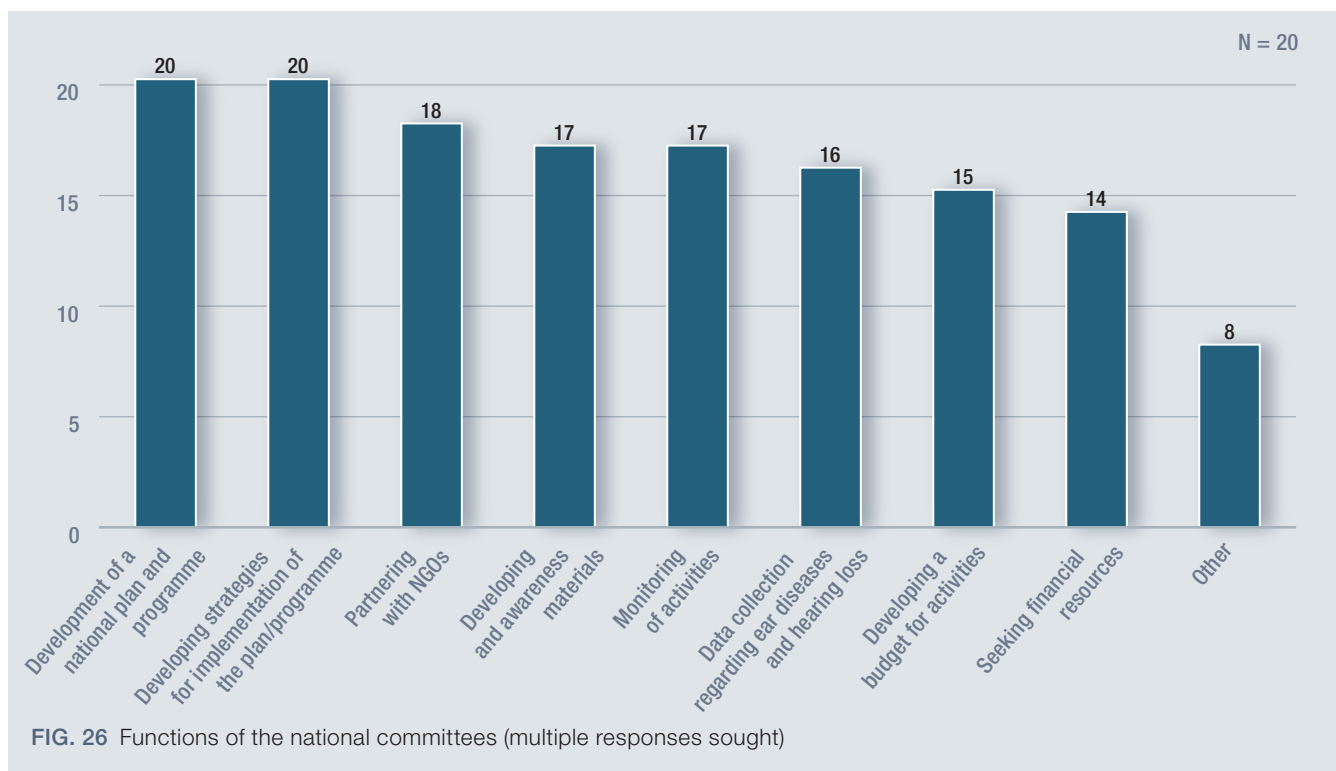
KEY POINTS

- The ministry of health was a member of the national committee in 19 of the 20 countries that reported such a committee's existence. Involvement of professional groups was reported by all national committees, while academic institutions were involved in 85% (Figure 25). Other governmental departments involved were: ministry of education (75%); disabled people's organizations (75%); and ministry of social services (75%).
- 35% of national committees had representation from United Nations agencies. 35% of respondents noted the involvement of the private sector.
- Of the 20 existing committees reported, 12 were chaired by representatives of the ministry of health. Six were chaired by representatives of professional associations within the country. One committee was chaired by the disability council, while another was under the leadership of ministry of social services.
- A variety of other agencies were involved in the functioning of the committee, including ministry of family affairs, ministry of finance, associations of ENT specialists and audiologists.

2.4.3 FUNCTIONS OF THE NATIONAL COMMITTEE

KEY POINTS

- Each of the twenty reported committees had the responsibility of developing the national plan and related implementation strategies. 90% had the role of partnering with nongovernmental agencies in the implementation of the programme.
- 85% of the committees also shared the responsibility for developing technical materials for training and awareness, monitoring of programme activities and outcomes, including collection of data regarding ear and hearing disorders (Figure 26).
- 70% of the committees had the additional role of seeking financial resources for the implementation of the programme.
- Other roles played by the national committee included: undertaking related advocacy; ensuring age appropriate rehabilitation for those with hearing loss; encouraging research; and promoting the human rights of those affected.



RESULTS

2.5 GOVERNMENT-INITIATED NATIONAL OR SUBNATIONAL PLAN, PROGRAMME OR POLICY FOR EAR AND HEARING CARE OR PREVENTION OF HEARING LOSS

DEFINITION

'National plan' refers to a concept paper or strategy plan for prevention or reduction of ear diseases or hearing loss in the entire country or a part (such as a state or district).

'National programme' refers to an implementation plan that may be based on the national plan. This document ideally gives the objectives and associated activities in a time-bound manner.

'Ear and hearing care policies' refers to any policies or programmes relating to ear and hearing health that are being implemented by the government at national or subnational level, such as school ear and hearing check-ups; provision of hearing aids; noise control programmes; ear and hearing awareness campaigns; training of health care workers in ear and hearing care.

Respondents were asked if there was a government-initiated national or subnational plan or programme for ear and hearing care, or prevention of hearing loss in the country. Where the countries responded positively, further information was sought regarding the ministries and departments involved and related funding sources.

In those Member States where no such plans exist, information was sought about government-led ear and hearing care policies as well as nongovernmental organizations involved in providing ear and hearing care. The Member States were asked to identify reasons for absence of such ear and hearing care plans.

2.5.1 EXISTENCE OF A GOVERNMENT-INITIATED NATIONAL OR SUBNATIONAL PLAN/PROGRAMME/POLICY

KEY POINTS

- Data were available for 75 of the 76 participants (98.6%), of which 40 (53.3%) reported the presence of a national or subnational plan, programme or ear and hearing health-related policies.
- Of these, 32 Member States had developed national or subnational plans for prevention of hearing loss or ear and hearing care. Eight countries had put in place some policies relating to hearing health.
- The highest proportion of subnational programmes/policies was reported by respondents from high-income (83.3%) and upper-middle-income countries (64.7%), as compared to 44% and 38% of respondents from low- and lower-middle-income countries (Figure 27).
- Among the WHO regions, 70% of respondents from the South-East Asian Region, 60% from the Western Pacific Region, and 38% from the African Region reported such programmes/policies in place. The responses from other WHO regions are depicted in Figure 28, but the number of participating Member States is relatively small.
- An analysis of existing data received through alternate sources revealed that 12 out of 19 responding countries had developed national/subnational plans and programmes for ear and hearing care. The overall status (based on all available sources of information) is as depicted in Map 6.

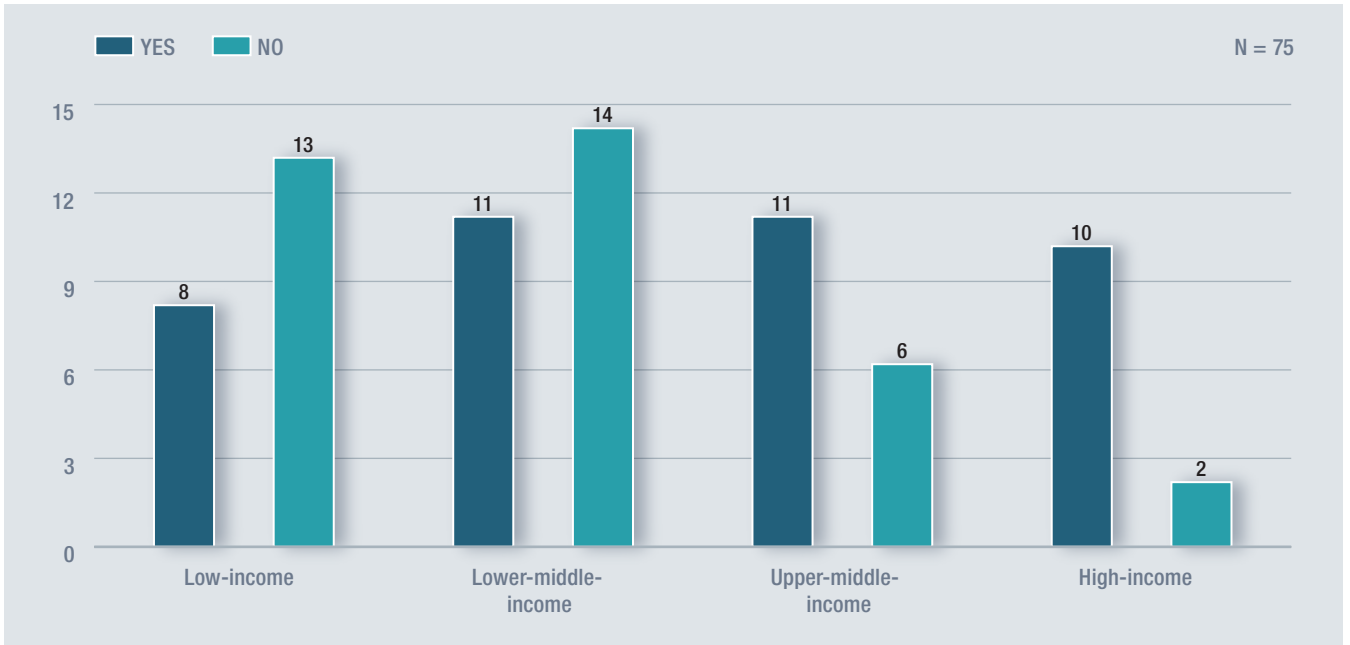


FIG. 27 Existence of government-initiated national or subnational plan/programme/policy for ear and hearing care, by income level

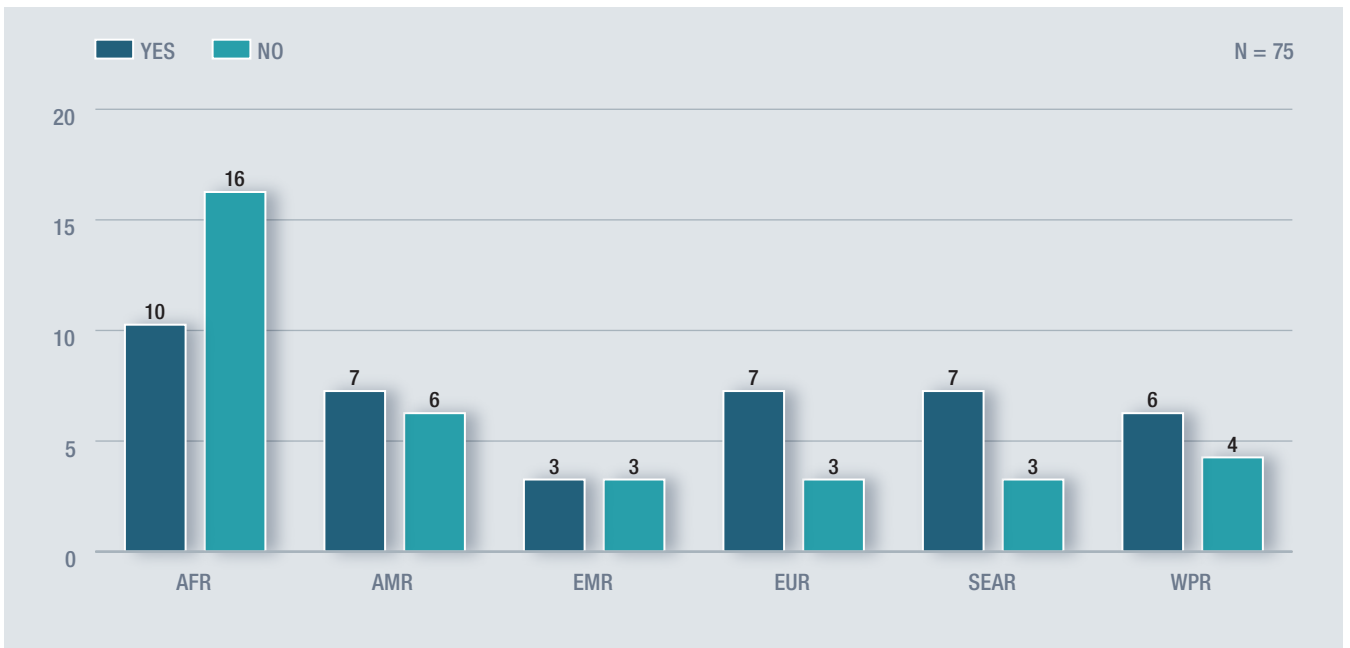
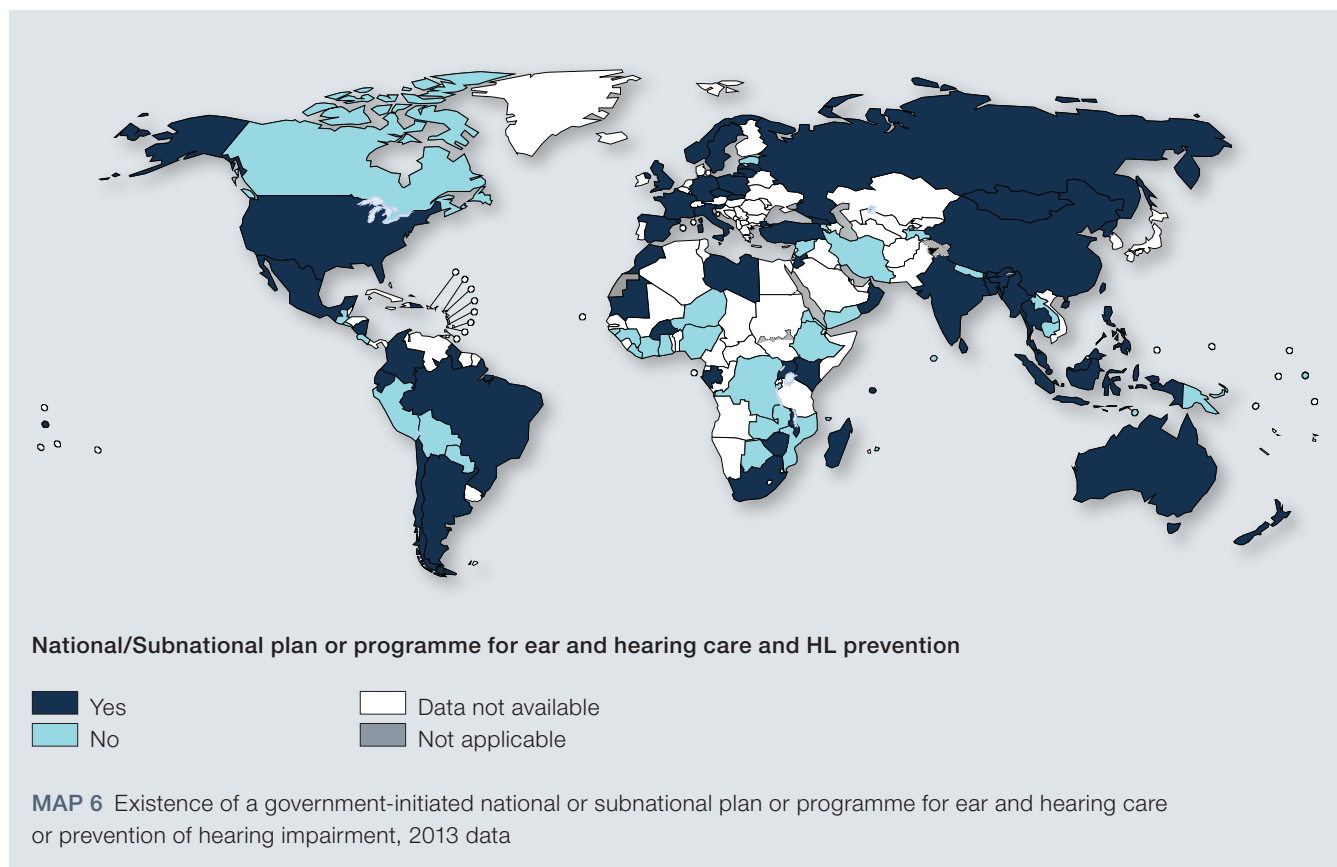


FIG. 28 Existence of government-initiated national or subnational plan/programme/policy for ear and hearing care, by WHO region

RESULTS



2.5.2 DEPARTMENTS INVOLVED IN DEVELOPMENT OF NATIONAL OR SUBNATIONAL PLAN

KEY POINTS

- Involvement of various ministries in the national plan for ear and hearing care was described by 31 of the 32 respondents, who confirmed the availability of a national plan. These responses indicated the involvement of the ministry of health in the development and implementation of such plans and programmes.
- Data were also received from alternate sources including nongovernmental organizations, subject experts at country level and supplemented through literature searches. Information on an additional eight Member States was gathered in this manner.
- The ministry of health was involved in such programmes in all the responding countries. The involvement of other ministries was variable (Figure 29). Ministries of social services, education and environment were most commonly involved.
- Further analysis, based on income groups, revealed that such plans were solely the responsibility of the ministry of health among high-income country respondents. There was a greater involvement of other governmental departments and ministries in low-, lower-middle and upper-middle-income countries.
- 28% of countries reported the involvement of other agencies including ministry of family affairs, ministry of finance, nongovernmental agencies, professional bodies, health insurance groups, as well as pension and disability insurance institutes.

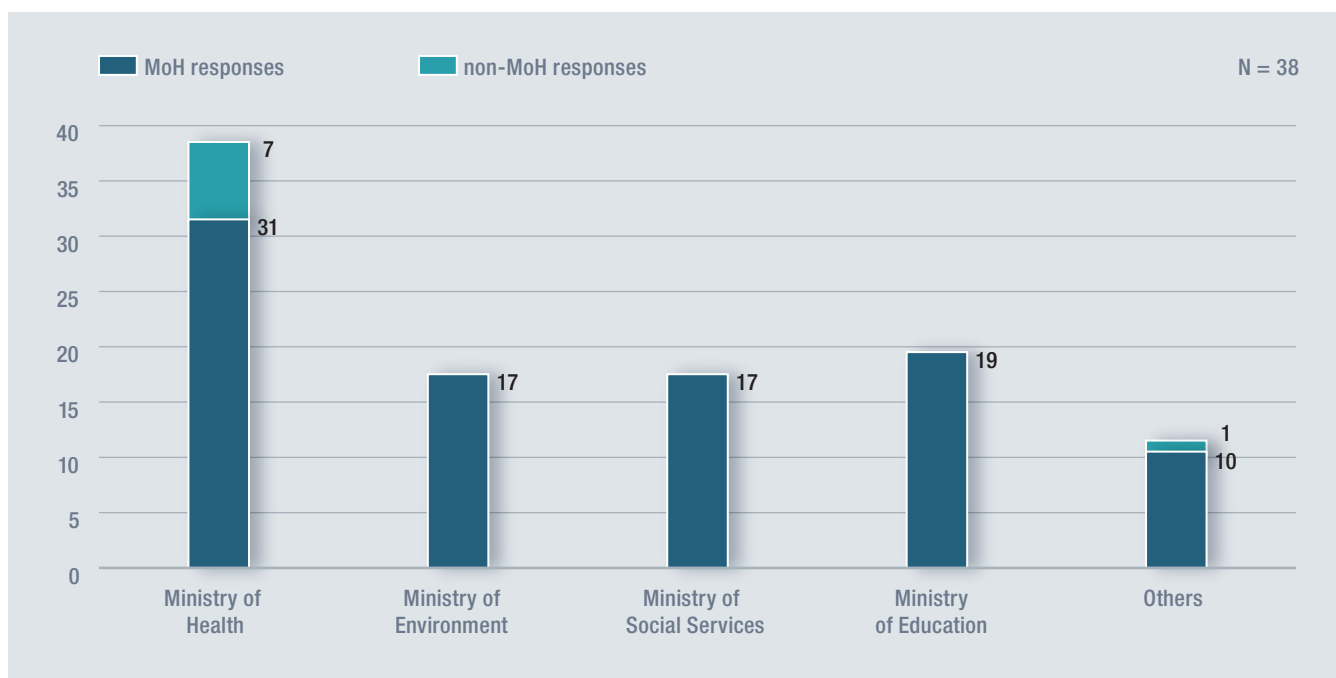


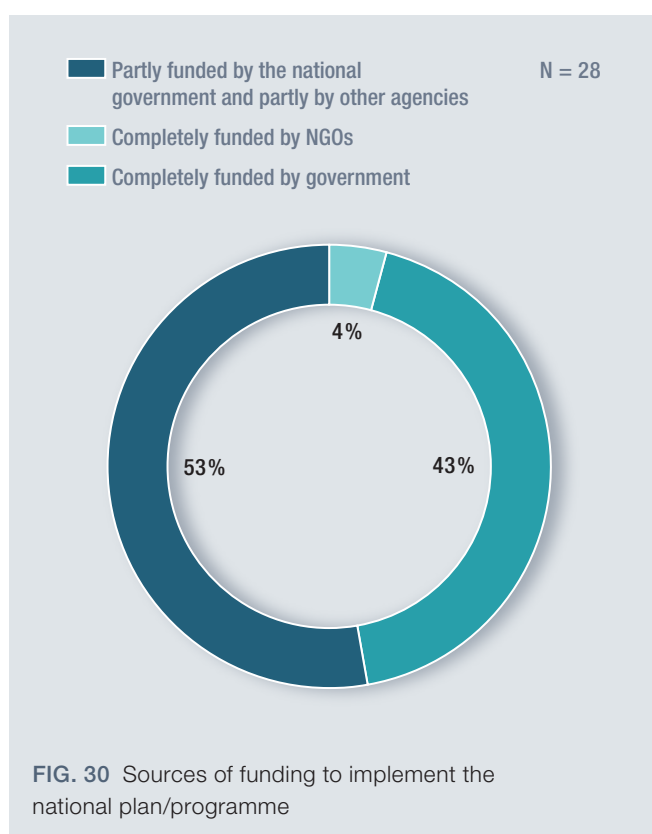
FIG. 29 Involvement of departments in the development of a national or subnational plan/programme (multiple responses sought)

RESULTS

2.5.3 SOURCES OF FUNDING

KEY POINTS

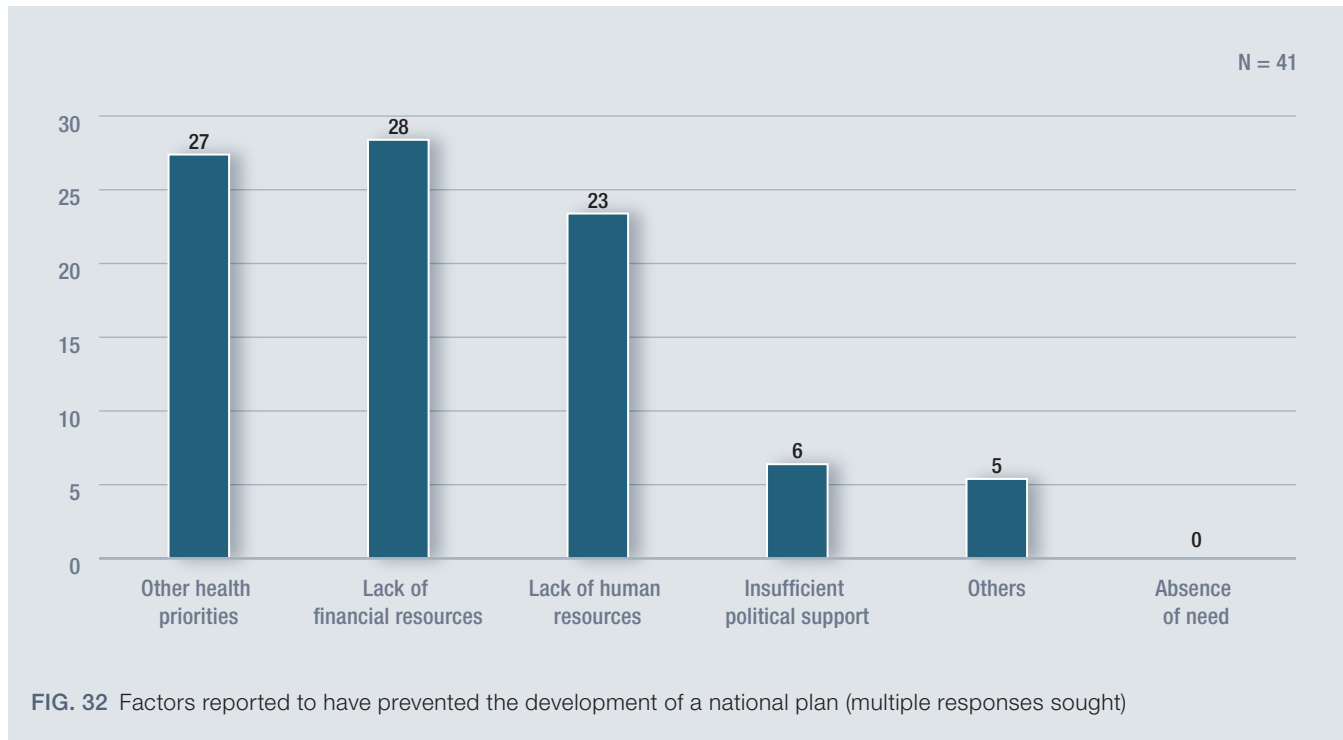
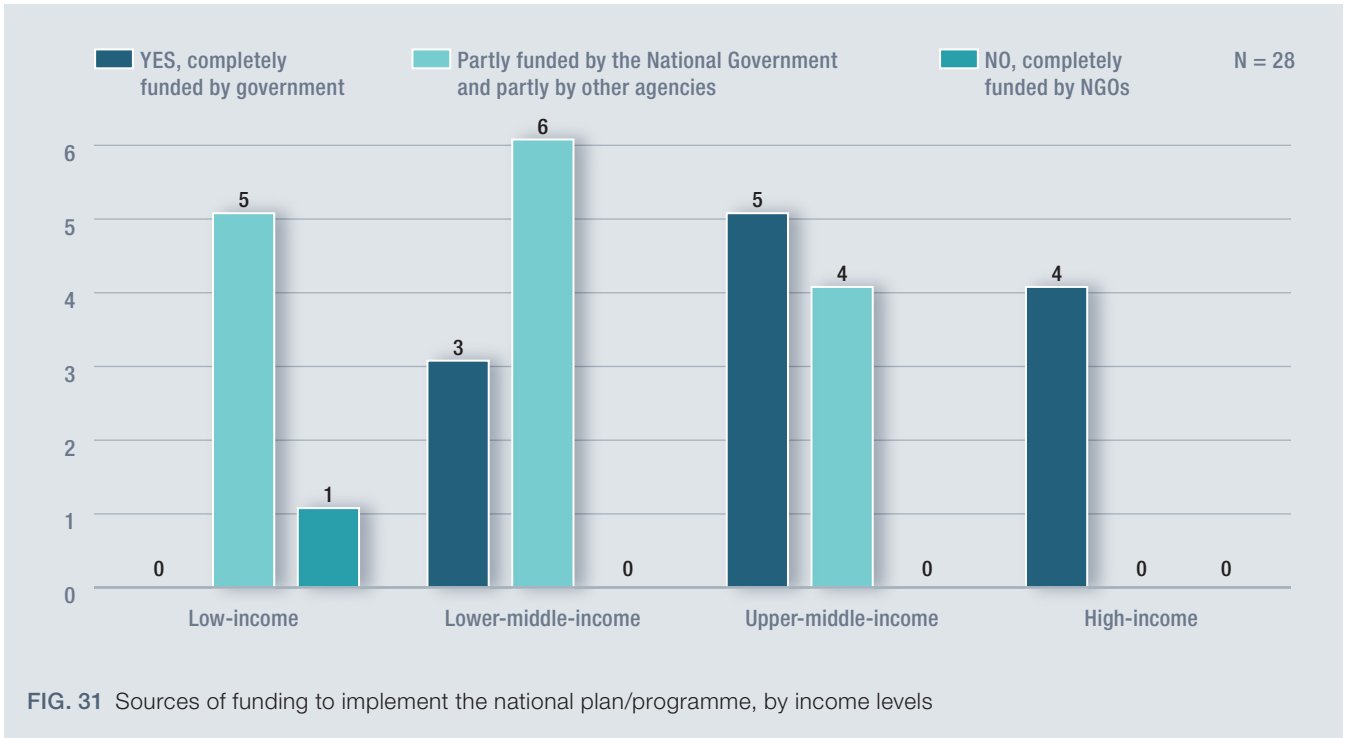
- Responses were available for 28 of the 32 countries that reported the presence of a national/subnational plan or programme. In 43% of the 28 national/subnational programmes, the funding was exclusively by the national government. In the majority of the countries with national programmes (53.5%), the funding was shared by the government and nongovernmental agencies. One respondent stated that the programme was funded fully by nongovernmental agencies (Figure 30).
- An analysis of the reported funding sources by income level of the responding Member States suggests that programmes in high-income countries tend to be fully supported by their governments, without the involvement of other agencies (Figure 31).



2.5.4 REASONS CITED FOR LACK OF NATIONAL PLAN/PROGRAMME FOR EAR AND HEARING CARE

KEY POINTS

- Member States that had no ear and hearing care programme at the national level were asked to provide possible reasons for this situation. 41 of the 44 participating countries that do not have a government-led ear and hearing care plan responded. The responses are not mutually exclusive and various reasons were cited.
- None of the Member States mentioned an absence of need as a cause for their lack of ear and hearing care plans. Other health priorities and lack of financial resources were the most common factors cited.
- Lack of human resources was listed as a hindering factor by 56% (23) of the 41 respondents. 83% suggested that sufficient political will exists within the country to develop such programmes for ear and hearing care. Lack of programmes was attributed to other reasons (Figure 38).
- The other factors highlighted by the respondents pointed to an absence of information about the prevalence and impact of ear and hearing care problems in the country, and lack of training institutions.
- Member States without any current national plans/programmes for ear and hearing care were asked about the possible development of such plans in the near future. 63.5% of the respondents replied in the affirmative.
- Considering the responses received, it would appear that identification of linkages between ear and hearing conditions and other health priorities may be effective in promoting ear and hearing care at the country level. Lack of human resources and training institutions is reported to be a challenge to effective ear and hearing care services. Modalities for development of human resources for ear and hearing care need to be explored. Evidence-based advocacy at international and national levels may help to mobilize political support towards implementation of ear and hearing care plans and programmes.



CASE STUDIES

A few case studies of Member States that have initiated the implementation of national or subnational plans for ear and hearing care or prevention of deafness are included here.

3.1 PROGRAMMES FOR PREVENTION AND REHABILITATION OF HEARING LOSS IN CHINA

The Government of China has been paying special attention to the problem of hearing loss for the past 30 years and has developed various programmes to prevent and rehabilitate hearing loss. Through the collaborative efforts of various ministries and the China Disabled Persons' Federation, the rehabilitation of hearing loss has been integrated into various government programmes. Five national plans for hearing loss have been implemented and over 370 000 children with hearing loss have received services. Under the current programme (2011–2015), 16 865 children have received cochlear implants and another 18 000 have been fitted with hearing aids. Local governments have responded and 29 (of 31) provinces have set up local rehabilitation programmes.

An effective service network for screening, diagnosis, hearing aid fitting, cochlear implant surgery and rehabilitation has been set up. Community-based hearing and speech services have been developed through education and instruction. Raising public awareness about ear and hearing problems is an essential part of the programme. The National Ear Care Day has been observed since 2007, with involvement of different ministries and focusing on varying themes.

One of the successful programmes for China has been the 'Hearing the Future – China National Hearing Care Programme,' which was started in 2005 through collaboration of the Ministry of Health, the China Disabled Persons' Forum and GN Resound.

A specialist team – the China Advanced Hearing Advisory Board (CAHA) – was set up with 250 key opinion leaders from government, academics and entrepreneurs. Its purpose is to provide operational and technical guidance and support to the programme. The focus of the programme is on screening, diagnosis and treatment of hearing loss; training of health professionals at different levels and public education for prevention and rehabilitation.

The Hearing the Future (HTF) programme has created platforms such as the HTF e-academy, HTF Journal, HTF website and HTF brochures. It has successfully explored the public private partnership (PPP) approach for the national hearing loss prevention and rehabilitation programme.

A global survey was conducted in 2012 regarding the implementation and impact of the HTF programme. An overwhelming majority of respondents judged this to be significant. In the future, the programme will continue to focus on training/education, infrastructure building as well as awareness generation through a public health approach.

In the coming years, China intends to continue investing in hearing health, through improved basic facilities across the country, training of personnel and strengthened networks.

CASE STUDIES

3.2 NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF DEAFNESS, INDIA

Taking note of the 6% prevalence of disabling hearing loss in India, the National Programme for Prevention and Control of Deafness (NPPCD) was launched by the Government of India on a pilot basis from August 2006 and formalized as a national programme in 2008. It has a vision to eliminate preventable deafness, reduce the total burden of deafness to less than 1% and empower the hearing-impaired to lead a socially and economically productive life, by 2030.

The focus of the programme is to generate awareness about ear and hearing problems and to provide services at the primary health care level. Awareness-generating activities are being undertaken through electronic and written media, and include person-to-person communication. Service delivery is strengthened through capacity-building, screening activities and referral system.

District hospitals have been upgraded with provision of diagnostic and surgical equipment as well as hearing aid fitting services. Additional human resources are employed at the district hospital, including an audiological assistant and a teacher for young hearing-impaired clients. As part of the programme, doctors at primary and community health centres are reoriented towards ear and hearing problems and provided with the basic diagnostic equipment for ear care.

The function of health care workers at various levels within the health care delivery system has been defined and trainings are oriented towards performance of the identified tasks with a focus on awareness generation in the community, early identification and referral. Training is based on WHO ear and hearing care manuals. Community-based camps and school screening activities through the school health system are a part of the programme. The programme also aims to strengthen existing intersectoral linkages for rehabilitation of persons with hearing loss.

Currently the programme is running in 203 of 640 districts of India. It is proposed to gradually expand the programme to include all 28 states and seven union territories of the country. Skills-based training through temporal bone laboratories and Cochlear implantation is being considered for inclusion under the purview of the programme.

3.3 NATIONAL NEONATAL HEARING SCREENING PROGRAMME OF THE MINISTRY OF HEALTH, JORDAN

The neonatal hearing screening programme was started in 2012 following comprehensive studies that were conducted all over the country from 2001–2007. The national programme guidelines mandate that all babies must be screened for hearing, before the age of 1 month; full diagnosis of hearing loss must be completed by the age of 3 months; and hearing aids fitting and rehabilitation must begin before the age of 6 months.

The screening is conducted by trained nurses, and follow-up and diagnosis is made by qualified ENT and audiology specialists. Special workshops and seminars for training of nurses, general physicians, and ENT doctors, primary health care doctors for ear and hearing care, are regularly conducted. An important part of the programme is raising public awareness through the use of flyers, brochures, posters, booklets, as well as radio and TV programmes. Currently all government hospitals have been equipped with the suitable equipment for hearing screening and all babies delivered at government hospitals undergo hearing screening. Hearing aids are provided for hearing-impaired children through the Ministry of Health. Approximately 3000 hearing aids and 100 cochlear implants are fitted annually.

Problems faced are due to the fact that babies are often discharged early and about 10% of children are born outside hospitals. Refusal of parents to test their babies and low compliance with follow-up appointments are among other problems that are being addressed.

It is planned to expand this programme to royal medical services, and private sector hospitals. Establishing legislation to screen all babies' hearing before being discharged from hospitals is to be considered in the future. It is also proposed to start a school-hearing screening programme for children aged 5 to 8 years.

3.4 NATIONAL DEVELOPMENT PLAN FOR EAR AND HEARING CARE, MALAWI

The Malawi national development plan for ear and hearing care was launched in 2013, covering a period of five years. It is aimed at greatly increasing access to ENT and audiology interventions and services throughout the country. The key objectives of the programme include provision of training in ENT and audiological care and development of suitable health infrastructure, medical and rehabilitation supplies for ear and hearing care. It also aims to promote research and undertake monitoring and evaluation.

The plan is funded by the Ministry of Health with support from a number of international nongovernmental organizations. It is focused on improving delivery of ear and hearing care in the country through creation of centres of excellence in otological and audiological care at the tertiary level, while establishing outreach ENT clinics and services in district hospitals across the country. Three sites for development of centres of excellence have been identified and the required infrastructure established in one hospital in Blantyre. Training of the required surgical and audiological human resources is being undertaken in collaboration with Kenya. The outreach centres are to be served by clinical officers trained through an 18-month diploma programme. The training of clinical officers and ENT nurses is underway in Kenya and Malawi.

The next steps include developing a plan for financial sustainability of the programme and improving procurement of medicines, diagnostic and rehabilitation supplies in Malawi. It is planned to conduct a nationwide epidemiological survey and develop suitable monitoring tools and indicators for the programme.

3.5 NATIONAL STRATEGY ON PREVENTION OF DEAFNESS AND HEARING IMPAIRMENT, MONGOLIA

The National strategy on prevention of deafness and hearing impairment was endorsed by the Minister for Health and Minister for Social Protection in September 2009. The ten-year programme aims to reduce the prevalence of hearing loss through prevention, early identification and treatment.

As a part of the strategy implementation, Guidelines on children's deafness and hearing impairment: early diagnosis and treatment and an Advisory note on usage of ototoxic drugs were endorsed by Minister for Health in 2010.

A number of skills-building training programmes have been conducted targeting ENT specialists, paediatricians and general practitioners. The focus of training has been on promoting primary ear and hearing care as well as early identification. Development of surgical skills in ENT has also been addressed. WHO training manuals on primary ear and hearing care have been utilized for this purpose. Technical support was provided by neighbouring countries for skills development.

School hearing check-ups are a part of the programme and newborn hearing screening activities were started in 2013. Since 2009, 6162 hearing aids have been fitted on people identified and referred through the national programme.

In the coming years, it is planned to study the prevalence of hearing loss at the national level and to continue trainings in ear and hearing care, including for technicians. It is proposed to upgrade equipment for otological and audiological services in tertiary hospitals and establish a national acoustic and otoplastic laboratory.

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LIST OF PARTICIPATING COUNTRIES

WHO Member States	WHO region	Income level
Armenia	EUR	Lower middle income
Bangladesh	SEAR	Low income
Bhutan	SEAR	Lower middle income
Bolivia (Plurinational State of)	AMR	Lower middle income
Botswana	AFR	Upper middle income
Brunei Darussalam	WPR	High income
Burkina Faso	AFR	Low income
Burundi	AFR	Low income
Cambodia	WPR	Low income
Chile	AMR	High income
China	WPR	Upper middle income
Colombia	AMR	Upper middle income
Comoros	AFR	Low income
Costa Rica	AMR	Upper middle income
Côte d'Ivoire	AFR	Lower middle income
Czech Republic	EUR	High income
Democratic Republic of the Congo	AFR	Low income
Dominican Republic	AMR	Upper middle income
Ecuador	AMR	Upper middle income
Egypt	EMR	Lower middle income
El Salvador	AMR	Lower middle income
Eritrea	AFR	Low income
Estonia	EUR	High income
Ethiopia	AFR	Low income
Gabon	AFR	Upper middle income
Georgia	EUR	Lower middle income
Ghana	AFR	Lower middle income
Guatemala	AMR	Lower middle income
Guinea	AFR	Low income
Guinea-Bissau	AFR	Low income
Guyana	AMR	Lower middle income
India	SEAR	Lower middle income
Indonesia	SEAR	Lower middle income
Iran (Islamic Republic of)	EMR	Upper middle income
Jordan	EMR	Upper middle income
Kenya	AFR	Low income
Kiribati	WPR	Lower middle income
Lao People's Democratic Republic	WPR	Lower middle income
Latvia	EUR	High income
Liberia	AFR	Low income
Lithuania	EUR	High income
Madagascar	AFR	Low income

WHO Member States	WHO region	Income level
Malawi	AFR	Low income
Malaysia	WPR	Upper middle income
Maldives	SEAR	Upper middle income
Mauritania	AFR	Lower middle income
Mauritius	AFR	Upper middle income
Mexico	AMR	Upper middle income
Mongolia	WPR	Lower middle income
Morocco	EMR	Lower middle income
Mozambique	AFR	Low income
Myanmar	SEAR	Low income
Nepal	SEAR	Low income
New Zealand	WPR	High income
Nicaragua	AMR	Lower middle income
Niger	AFR	Low income
Nigeria	AFR	Lower middle income
Oman	EMR	High income
Paraguay	AMR	Lower middle income
Peru	AMR	Upper middle income
Philippines	WPR	Lower middle income
Poland	EUR	High income
Seychelles	AFR	Upper middle income
Singapore	WPR	High income
Slovakia	EUR	High income
Slovenia	EUR	High income
South Africa	AFR	Upper middle income
Sri Lanka	SEAR	Lower middle income
Syrian Arab Republic	EMR	Lower middle income
Tajikistan	EUR	Low income
Thailand	SEAR	Upper middle income
Timor-Leste	SEAR	Lower middle income
Uganda	AFR	Low income
Yemen	EMR	Lower middle income
Zambia	AFR	Lower middle income
Zimbabwe	AFR	Low income

**For more information,
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[www.http://www.who.int/pbd/deafness/en/](http://www.who.int/pbd/deafness/en/)

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