Editorial Review

WHO and its role in the prevention of deafness and hearing impairment

The World Health Organization (WHO) is a specialized agency of the United Nations which was set up in Geneva in 1948. The constitution of WHO establishes it as ‘the directing and coordinating authority on international health work’. It is responsible for helping all peoples to attain ‘the highest possible levels of health’. The central structure of WHO includes a policy-making body termed the World Health Assembly (WHA). The WHA consists of delegates of all member states (meeting yearly), an executive board of 32 individuals elected by the assembly, and a secretariat, consisting of a director-general assisted by technical and administrative staff.

The World Health Organization has produced, or been associated with the production of, a number of documents. Perhaps the three that are best known to the medical profession in general are the International Classification of Impairments, Disabilities, and Handicaps (ICIDH): A manual of classification relating to the consequences of disease (World Health Organization, 1980), the International Statistical Classification of Diseases and Related Health Problems (World Health Organization, 1992), and the State of the World’s Vaccines and Immunization (World Health Organization and United Nations Children’s Fund, 1996). Although it is now being revised, the first document has been used extensively in areas such as anthropology, demography, economics, education, legislation, policy, rehabilitation, sociology and statistics.

In relation to hearing, there is a need to distinguish between the terms ‘impairment’, ‘disability’ and ‘handicap’ as they are used by WHO (and in the UK) and as they have been used in the USA. In respect of hearing, the WHO considers ‘impairment’ to be a measure of defective auditory function; ‘disability’ is the auditory problem experienced and complained of by the individual; ‘handicap’ encompasses the non-auditory consequences (e.g. occupational, sociological, psychological, economic) of hearing impairment and hearing disability (Stephen and Hétu, 1991).

Current terminology recognizes the necessity for addressing both individual needs (for example, in respect of rehabilitation and technical aids) and the shortcomings of society (various obstacles to participation). Stemming from the International Year of Disabled Persons, 1981 and the World Programme of Action (concerning Disabled Persons)1 ‘handicap’ has been further specified as a function of the relationship between persons with disabilities and their environment (United Nations, 1994).

A 1985 World Health Assembly resolution in relation to the prevention of deafness and hearing impairment had pointed out that much deafness and hearing impairment is avoidable or remediable and that developing countries had the greatest need for the prevention and remediation of hearing problems. A 1995 WHA resolution had estimated that there were 120 million people with ‘disabling hearing difficulties’ worldwide and urged member states to set up National Programmes for the prevention of deafness and hearing impairment. It was envisaged that technical assistance to such countries should be provided by WHO.

‘Prevention’ encompasses primary, secondary and tertiary prevention. Primary prevention of hearing impairment signifies the prevention of hearing impairment by preventing a disease that causes hearing impairment either occurring or reaching the stage where an impairment results. Secondary prevention signifies preventing an impairment progressing to a disability. Tertiary prevention signifies preventing a disability progressing to a handicap (tertiary prevention may be considered to overlap with rehabilitation).

Since 1985, the World Health Organization has had a programme for the ‘Prevention of Deafness and Hearing Impairment’, usually referred to as the PDH programme. The PDH programme (PDHP) is overseen and evaluated by members of the WHO’s Expert Advisory Panel on Prevention of Deafness and Hearing Impairment. These experts met recently in Geneva (World Health Organization, 1997). The 17 participants included four members of the staff of WHO and three representatives of IMPACT. HI (Hearing International), IALP (International Association of Logopaedics and Phoniatrics) and IFOS (International Federation of Otolaryngological Societies) were also represented. The seven other participants came from Denmark, Egypt, Ghana, Japan, Russia and the UK.

WHO has defined what it terms a ‘disabling hearing impairment’. For adults this is defined as a permanent unaided hearing threshold level of 41 dB or greater. It will be noted that a quarter of a century ago, the British Association of Otolaryngologists ‘suggested that the level of hearing loss appropriate to the requirements of the Industrial Injuries Act
would be an average of 40 dB or more over the
1,000, 2,000 and 3,000 Hz frequencies' (Department of

For children under the age of 15 years, a disabling
hearing impairment is defined as a permanent
unaided hearing threshold level of 31 dB or greater.

For both children and adults, the ‘hearing thresh-
hold level’ is to be taken as the better ear average
hearing threshold level for the four frequencies 0.5,
1, 2 and 4 kHz. At the moment, more than 180
million adults (individuals aged 18 years or more) in
the world are estimated to have a disabling hearing
impairment; by the year 2000, the number will
exceed 200 million (Davis, 1997a). Staggering
though these figures are, are they underestimates?
The National Study of Hearing showed that ‘26 per
cent of adults report great difficulty with speech in
noise’ (Davis, 1989). However, difficulty hearing
speech in a background of noise is a question of
degree; provided that the noise level is sufficiently
high, everyone will have difficulties.

Deafness and hearing impairment are major
causes of disability in developing countries. Unfortu-
nately, they are generally neglected in comparison
with other disabling conditions. The reasons for this
neglect are multiple. Principally, this is because, as in
more developed countries, deafness and hearing
impairment produce unseen disability. In developing
countries, more so than in more developed countries,
there is a lack of awareness of the possibilities for
prevention as well as uncertainty about the most
appropriate methods for treatment and rehabilita-
 tion. In developing countries, in particular, there is
ignorance of the true size and nature of the problems
and a conspicuous lack of resources to tackle these
problems.

PDHP is already addressing these issues by
developing a standardized 'ear disease assessment
protocol' to enable countries to conduct national
surveys rapidly. The protocol has been used already
in pilot studies in several countries (Botsswana, India
and Saudi Arabia) and in a joint full-scale national
survey of blindness and deafness in Oman. The full
protocol, including computer software for data
analysis, will be available for distribution by the
middle of this year.

PDHP is formulating integrated strategies to
prevent deafness and hearing impairment. By con-
vening technical meetings, the auditory adverse
effects of ototoxic drugs and chronic otitis media
(Smith, 1996) are already being addressed by the
programme. Guidelines will be produced shortly.
Current planning by the programme concerns noise
damage to hearing and the provision of appropriate
affordable hearing aid services for developing
countries. Future plans encompass the production
of guidelines and training manuals for primary ear
care (including human resource development),
guidelines for courses in Public Health Otology/
Audiology, and guidelines for the formulation and
management of National Programmes for the pre-
vention of deafness and hearing impairment.

The PDHP not only encourages but also provides
technical assistance to countries so that they can
develop their own national plans for the prevention
of deafness and hearing impairment. PDHP has
already assisted Oman to undertake a national
prevalence, causes and needs survey; it has assisted
Jordan in planning such a survey. It is also assisting
Turkmenistan to develop its own national plan.

Until such time as all the national plans can be
completed, assessment of the prevalence of hearing
impairment and deafness and of the rehabilitative
requirements must needs be estimated. In cases
where national data are not yet available, the data,
for example, from the UK National Study of Hearing
can be used to provide estimates (Davis, 1997b).
Many countries do not have the wherewithal to
mount their own national studies of hearing so they
will have to rely on data from other countries, ever
aware of the uncertainties which are associated with
such extrapolations. Nevertheless one should con-
tinue to press for the epidemiological studies that are
required to provide the accurate, population-based
data on which the extent of the problem can be
determined. Accurate data are needed for govern-
ments to determine priorities within health
programmes, to select and monitor preventive
strategies, to predict treatment and rehabilitation
needs and to determine the individual and societal
costs of hearing impairment as well as the benefits
of prevention.

Additional to epidemiological studies, integrated
strategies for the prevention of deafness and hearing
impairment need to be developed. In this field of
major public health importance one needs to address
the problems which are amenable to intervention,
giving priority to the poorest developing countries.
Governments need to be persuaded to implement
satisfactory programmes for the prevention of deaf-
ness and hearing impairment. This persuasion will
need to be particularly so in developing countries.
Here the need is greatest. In many cases, there has
been little activity and no national programme.

However, there has been an increasing awareness
by some governments, international organizations,
NGOs and charitable donors that deafness and
hearing impairment may be significant contributors
to poverty and hence a brake on economic and social
development. But the inter-relationship between
socio-economic factors and the health of the body
in general, or of the ears in particular, is complex.
Nevertheless the 1995 London Declaration, which
arose out of a conference organized jointly by Action
in International Medicine and WHO, called on all
institutions and associations of health professionals
to urge the political leaders of their country to make
public commitments to reduce poverty and improve
the health of their populations (Smith, 1997).

WHO's PDHP is in a strong position to address
these problems because it has new resources and is
expanding. The WHO system of Regional Offices
and country representatives enables it to talk directly
to governments and to give them technical assistance
to formulate appropriate plans. Moreover, WHO's
network of collaborating centres provides the academic and technical backup and linkages which are so essential to the success of the PDHP. At present there are four collaborating centres (located in Bangkok, Copenhagen, Liverpool and Malmo), with more in the pipeline. Furthermore, links with non-governmental and other organizations provide access to additional resources which strengthen PDHP’s capabilities and enhance the implementation of its policies and guidelines. However, further resources are needed if the programme is to continue to expand.

Neither WHO nor its PDHP wish to be isolated from the world at large; indeed to be so would be inconsistent with their raison d’être. As the Director-General of WHO wrote recently: ‘To foster health development and international health action in a spirit of respect, solidarity and equity, WHO’s first responsibility must be to promote a genuinely open dialogue involving all peoples, cultures and health-related groups and institutions. All partners concerned, both within and outside the Organization, should feel authorized to speak and be heard with respect and attention.’ (Nakajima, 1996.)

WHO is not alone in its endeavours. Having been founded in 1924, IALP is probably the most senior of the organizations concerned with the prevention and rehabilitation of hearing and speech disorders at all age levels. IMPACT, which is associated with the name of Sir John Wilson, was established in 1981 under the triple umbrella of UNDP, UNICEF and WHO. Although IMPACT has been said to be the acronym for l’Intervention mondial pour l’action contre des traumatis mes, like ISO, IMPACT was not intended to be an acronym. The full name for this organization is the ‘International Initiative Against Avoidable Disablment’. It co-ordinates a global campaign against all avoidable disabilities. The aims and objectives of a new global agency, HI (Hearing International), with which PDHP has close links, were set out in the Graz Resolution (Kapur, 1996). IAPA, IFHOH, IFOS, IMPACT and ISA are all members of the governing body of HI. HI’s journal (with same name), which has been edited by Jun-ichi Suzuki (now President of HI), is dedicated to ‘Networking the Centres for the Prevention of Deafness and Hearing Impairment’. Major non-governmental organizations such as the Christoffel-Blindenmission (CBM) are expanding in order to undertake further work in the prevention of deafness and hearing impairment. CBM has already made a substantial contribution to PDHP; IFOS and Hearing International have also given support.

Three years ago, following a critical analysis of the role of the World Health Organization, the Assistant Editor of the British Medical Journal concluded with the words: ‘WHO says that it has three main functions: to set normative standards; to provide technical advice and assistance on medical matters; and to advocate changes in health policy. During its 46 years history the first two functions have been a constant and uncontroversial backbone through which WHO has earned its reputation for scientific excellence.’ (Godlee, 1994.)

References


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