

NIDCD Strategic Planning

The National Hearing Conservation Association (NHCA) is a membership organization concerned with hearing conservation and hearing loss prevention (HLP). Our mission is "to prevent hearing loss due to noise and other environmental factors in all sectors of society."

Our membership is comprised of a wide variety of professionals involved with various aspects of HLP, including audiologists, occupational health physicians and nurses, engineers, academicians, safety professionals, industrial hygienists, hearing conservation program administrators, and others sharing our mission.

Effective hearing loss prevention efforts fall in two areas, prevention and protection. Both of these key aspects of HLP merit consideration for research support.

Prevention

While noise-induced hearing loss (NIHL) is widespread (according to some estimates, it is the most common occupational disease), it is also entirely preventable. Prevention efforts entail aspects of both awareness and training.

Suggested Research/Focus Areas

The pending NIDCD/NIOSH/NIHES Public Health Awareness Campaign on NIHL reflects an excellent beginning. NHCA supports the Campaign, and supports further efforts by NIDCD and related parties to increase public awareness about the hazards of noise, the preventability of NIHL, and the social/personal implications of NIHL.

Dissemination of useful information about effective HLP practices to people who administer programs in industrial and other settings is another key. NIDCD support of regional "best practices" training symposia would provide support for professionals seeking to upgrade their HLP management and administration skills. Offering this kind of information regionally could also motivate industry, specifically small and medium sized employers who have traditionally ignored noise and hearing issues, to begin and to support HLP efforts by providing them with useful and specific program administration tools, techniques, and information. Proven worker training and motivation techniques in particular merit widespread dissemination.

Effective local/personal training techniques that enable the individual to translate hazard awareness into personal self-protective behavior is another key aspect. As individuals understand risks, they will seek and must be equipped with the knowledge and tools to protect themselves from hazards. Research support in the development and analysis of effective training approaches and tools, especially in conjunction with others already pursuing these kinds of research avenues, would be of great benefit.

Susceptibility to NIHL is another important issue for consideration. Part of the research need here lies in the development of hearing level databases for non-occupationally exposed workers. In addition, the effects of age on hearing (presbycusis); confounding or synergistic effects of pre-existing hearing loss; environmental factors such as ototoxic drugs and chemicals; exposure to tobacco smoke; hypertension, diabetes and head trauma; non-occupational exposure to noise; and other susceptibility variables merit further population-based study. Identifying susceptibility risk factors will enable better identification of at-risk populations and improved intervention and prevention techniques with known at-risk populations.

Protection

We hope that eventually, our work and social environments become quiet enough that the risk of NIHL will disappear. Until that day, however, protection against excessive exposure to noise will be an integral and important aspect of HLP. A wide variety of hearing protection devices (HPD) are commonly available in the industrial market, but resistance to their use in that environment and the lack of widespread distribution in non-occupational channels are barriers to HLP.

Suggested Research/Focus Areas

The most effective HPD will be the one consistently and properly used by the exposed individual, and comfort remains an important aspect of acceptance and use. Research in the development of more comfortable HPD, and in developing quantitative measures of HPD comfort, will support the development of more user-friendly HPD and more consistent and widespread use and acceptance of the devices.

Training and motivation in HPD use is another important consideration. Development of and research into effective training mechanisms to assist in fitting, insertion, and selection of HPD for the people responsible for ground-level program administration (typically first-line supervisors and shop stewards) bears consideration.

Protection from non-occupational exposure to noise is another important consideration. Empirically, most HPD used in non-occupational settings is designed for and taken directly from the work environment, with no consideration of the difference between the occupational and non-occupational application, exposure conditions, and use parameters. Research into new HPD with design aspects and distribution channels outside the workplace safety paradigm will promote the self-protective behaviors motivated by the awareness efforts described above.

NHCA remains dedicated to the prevention of NIHL and the preservation of hearing health, and we appreciate this opportunity to participate with NIDCD in this important effort. Thank you.