1997 ANNUAL REPORT ON OCCUPATIONAL NOISE-INDUCED HEARING LOSS

The fourth annual report on occupational noise induced hearing loss (NIHL) was recently compiled and published by Project SENSOR. You can receive a copy of the entire 38 page document, which summarizes all reported cases of occupational NIHL in Michigan in 1997, by contacting Project SENSOR staff at 800-446-7805, or directly from the SENSOR website: http://www.chm.msu.edu/oem/index.htm. We encourage you to access the website to view the numerous graphs and charts depicting the scope of occupational hearing loss in Michigan’s work places. You may also download the report from the website.

Michigan’s occupational NIHL reports are generated by company medical departments, audiologists and otolaryngologists when audiometric findings are consistent with noise induced hearing loss and there is a positive history of occupational noise exposure. A summary of the 1997 annual report reveals the following facts and informational highlights. Results continue to show that occupational NIHL mainly affects men (90%) aged 35-64 years. However, one 1997 report identified an individual seventeen years of age with occupational NIHL, and several others identified men under the age of 25 (see Figure 1). Facilities covered by the general industry noise standard are required to have hearing conservation programs if the eight hour time weighted average noise levels are at or above 85dBA. Yet, 54 companies of the 739 work places inspected by the Michigan Department of Consumer and Industry Services in 1997 had inadequate or absent hearing conservation programs, despite hazardous noise levels (see Table 1). The lack of adequate conservation programs is present in both large and small businesses (see Table 2).

Figure 1. 1997 Occupational Disease Reports of NIHL: Age of Patients by Reporting Source
Approximately 10% of all occupational diseases reported in Michigan were for hearing loss. In 1997, audiologists and otolaryngologists identified 484 individuals with occupational NIHL (see Figure 2). Reports by Michigan's hearing health care providers identified noise hazards in manufacturing, agriculture and construction companies, as well as businesses related to retail, automotive repair, recreation and education. Your efforts in reporting occupational NIHL have made many of Michigan's businesses safer places for employees.

To date, 93% of all patients reported by audiologists and otolaryngologists in the past four years have been interviewed by Project SENSOR staff. Seventeen percent of those patients interviewed reported that their first exposure to occupational noise was in the last decade (see Figure 3). Further analysis revealed that nearly 30% of the individuals with a fixed hearing loss had developed their loss after less than five years of exposure to noise in the work place (see Figure 4).

The report of an individual with work-related hearing loss is a sentinel health event that is critical to effective occupational disease surveillance. Reports from audiologists and otolaryngologists can provide intervention to prevent others from developing work-related hearing loss. Despite the existence of noise standards and laws which require reporting all cases of known or suspected occupational illness, fewer than 15% of Michigan's 450 audiologists and 150 otolaryngologists are reporting occupational NIHL. This probably represents a substantial underestimate of the total number of individuals with work-related hearing loss.

Your reports have provided Project SENSOR with a high rate of success in identifying companies which although legally required to have hearing conservation programs, are not in compliance with the laws. We hope that our success in identifying companies which need hearing conservation programs will provide encouragement for audiologists and otolaryngologists to actively report their patients who have work related NIHL.

Table 1. Violations of the Noise Standard in Michigan: 1-1-97 to 12-31-97

<table>
<thead>
<tr>
<th>Standard Violated</th>
<th># Citations</th>
<th>%*</th>
<th>%**</th>
</tr>
</thead>
<tbody>
<tr>
<td>No HCP</td>
<td>43</td>
<td>79.6</td>
<td>52.4</td>
</tr>
<tr>
<td>Exceeded Noise Level</td>
<td>10</td>
<td>18.5</td>
<td>12.2</td>
</tr>
<tr>
<td>Access to Med. Recs.</td>
<td>3</td>
<td>5.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Training</td>
<td>7</td>
<td>13.0</td>
<td>8.5</td>
</tr>
<tr>
<td>Hearing Protection</td>
<td>4</td>
<td>7.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Any Audio. Testing</td>
<td>4</td>
<td>7.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Noise Monitoring</td>
<td>4</td>
<td>7.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Follow-up on Annual Audio. Testing</td>
<td>4</td>
<td>7.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Annual Audiometry</td>
<td>2</td>
<td>3.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Baseline Audiometry</td>
<td>1</td>
<td>1.8</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Co. may be cited for more than one type of violation; % based on total of 54 co.'s. cited. **Percent based on a total of 82 violations.

WORKERS' COMPENSATION FOR OCCUPATIONAL HEARING LOSS

Did you know that individuals with diagnosed occupational noise induced hearing loss may be eligible for medical costs of hearing testing and hearing aids? For information on how to apply for workers' compensation, contact the Department of Labor (517-373-3490).

Table 2. Size of Companies Cited for Violations of the Noise Standard in Michigan: 1-1-97 to 12-31-97

<table>
<thead>
<tr>
<th># Employees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 50</td>
<td>28</td>
</tr>
<tr>
<td>51 - 250</td>
<td>23</td>
</tr>
<tr>
<td>251 +</td>
<td>3</td>
</tr>
</tbody>
</table>
Figure 2. Patients with NIHL Reported to the Michigan Department of Consumer and Industry Services: 1985-1997

Figure 3. Decade of First Exposure to Noise Among NIHL Patients with a Fixed Loss: Michigan 1992-1997

Figure 4. Duration of Years Worked at Each Noisy Company for NIHL Patients with a Fixed Loss: Michigan 1992-1997

AUDIOLOGISTS ATTEND DINNER

Audiologists are in a unique position to eradicate the hazards of noise exposure in the work place. This was the message shared with over 40 participants at the recent Michigan Speech Language and Hearing Association Spring Conference. Audiologists attending the MSHA meeting were able to enjoy an evening of camaraderie, thanks to Tom Switalski of Gordon Stowe and Associates and Project SENSOR. After a full day of business and seminars, audiologists were invited to attend a relaxing dinner at the BOB, followed by a complimentary seating at the Comedy Club. A brief presentation highlighted the importance of reporting known or suspected occupational hearing loss to the Michigan Department of Consumer and Industry Services, with an appeal to get every audiologist involved in actively reporting.
Advisory Board

Alex Arts, MD
Michigan Otolarngology Society
Richard Kowalski, RN
Michigan Occupational Nurses’ Association; Council for Accreditation
in Occupational Hearing Conservation
Thomas O’Connor, MA, CCC-A
Michigan Academy of Audiology
Jerry Puch, PhD
Michigan State University
Thomas Simpson, PhD
Wayne State University
Suzanne Sommerville, PhD •
Michigan Speech-Language-Hearing
Association
Constance Spak, MA, CCC-A
University of Michigan
Michael Stewart, PhD
Better Hearing; Central Michigan
University

Project SENSOR Staff

At the Michigan Department
of Consumer and Industry Services

Douglas J. Kalinowski, C.I.H., Deputy Director
Bureau of Safety and Regulations
Project SENSOR, Co-Director
Bill Delk, M.P.H.
Regional Supervisor
Project SENSOR-MDPh Liaison
Debbie Wood
Division Chief/Secretary

At Michigan State University - College of Human Medicine

Kenneth D. Rosenman, M.D.
Professor of Medicine
Project SENSOR, Co-Director
Mary Jo Reilly, M.S.
Project SENSOR Coordinator
Amy Altermier
Project SENSOR NHLR Coordinator
Constance Spak, MA, CCC-A
Occupational Noise Consultant
Ruth VanderWaal
Project SENSOR Secretary
Tracy Murphy
Project SENSOR Secretary
Patient Interviewers:
Amy Krizek

PROJECT SENSOR GOES ON-LINE

Copies of the 1997 Annual Report on Occupational Noise Induced Hearing Loss in Michigan can now be accessed via the internet. The Project SENSOR staff hope to further develop the website to provide easy access to information related to reporting cases of occupational noise induced hearing loss. We welcome your comments and suggestions in this undertaking. Take a few moments to view our website at: http://www.chm.msu.edu/oem/index.htm

Now Hear This

In this issue: Highlights of the 1997 Annual Report on Occupational NHI

Address service requested.

Phone (517) 353-1955
East Lansing, MI 48824-1316
117 West Fee Hall
MSU - College of Human Medicine

Now Hear This