FIRST ISSUE!!

This is the first issue of***Now Hear This***, a quarterly publication about work-related hearing loss in Michigan. The newsletter is being produced by Michigan State University, as part of The Michigan Department of Consumer and Industry Service's (MDCIS) federally funded grant, Project SENSOR (Sentinel Event Notification System for Occupational Risks).

Project SENSOR is an ongoing surveillance and intervention effort designed to identify individuals with work-related illnesses, learn more about the exposures and factors leading to Michigan workers' illnesses, and ultimately prevent others from developing similar conditions.

Thirteen states participate in Project SENSOR, covering many different occupational illnesses such as pesticide poisoning, carpal tunnel syndrome, dermatitis and other conditions. The thirteen states conducting this federally funded surveillance are developing models for the nation so that other states can use and adapt the models.

Michigan is the only state developing a model for work-related hearing loss; therefore it is imperative that Michigan's hearing health professionals report any cases of known or suspected work-related hearing loss to the state so that the most accurate picture of the true nature of the disease can be described and effective intervention efforts geared toward preventing hearing loss can be designed.

Toward this effort, Connie Spak, a fellow audiologist, will be available to consult with you or your office on any questions you may have about reporting or developing an effective reporting system. To arrange for a consultation, please contact Connie at (313) 936-8013.

We welcome your comments and suggestions as we develop this newsletter and continue our surveillance efforts in Michigan. Please call us at 800-446-7805 or e-mail your comments to: 21770kdr@msu.edu or SPAK@umich.edu.

OCCUPATIONAL NOISE-INDUCED HEARING LOSS IN MICHIGAN

Occupational hearing loss is a pervasive problem, despite efforts to regulate noise and administer hearing conservation programs. Noise induced hearing loss is considered by the National Institute for Occupational Safety and Health (NIOSH) to be one of the ten leading occupational health problems in the United States. Approximately 30 million American workers are exposed to noise levels that are hazardous. Based on the National Health Interview Survey (NHIS) and US Census data, over 700,000 adults in Michigan experience hearing problems. Estimates further suggest that over 370,000 of these are occupationally related.

Project SENSOR has been conducting surveillance for noise-induced hearing loss (NIHL) in Michigan since 1992, and was recently extended for an additional three years. The first term of the project (1992-1996) identified 1,218 individuals with a fixed loss and 7,865 with a standard threshold shift. Workplace inspections, resulting from your reporting, identified over 900 additional workers who were exposed daily to dangerous levels of noise, without the benefit of a comprehensive hearing conservation program (HCP).

A review of those individuals reported reveals that the mean age of individuals reported to the state is 4 years. However, approximately 20% are in their 40s and approximately 15% are less than 40 years old. One would believe that the modifications to the Walsh-Healey Act in 1969, which first regulated noise levels in the workplace, would control or eradicate occupational noise induced hearing loss in younger workers. However, it is clear that there are ongoing problems with noise exposure.

As one might expect, occupational hearing loss was reported for automotive, metal and machinery related companies. Surprisingly though, some workers in food service, electronics, sales and even health care were exposed to hazardous noise in the course of their employment. Many of these companies did not have hearing conservation programs in place to protect their employees.

Sixty-five percent of the patients reported to Project SENSOR with a fixed loss who worked in larger companies were likely to be part of a HCP. As one might expect, the patients who worked in smaller companies were less likely to be part of a HCP. Only 30% of patients working at companies with fewer than 25 employees were part of a HCP; only 26% of patients working at companies with 25-100 employees were part of a HCP.

The social, emotional, educational and employment ramifications of hearing loss are well documented and well known to audiologists and otolaryngologists. In five years, and with your help, Project SENSOR has been able to identify over 9,000 Michigan residents who were, or are currently employed in potentially hazardous environments. Identification has led to greater workplace safety measures and an increased sensitivity to the compound effects of occupational noise hazards. Approximately 30,000 adults with occupational noise induced hearing loss have yet to be identified.

The reports received by the MDCIS indicate that only 12% of Michigan audiologists and otolaryngologists are actively reporting known or suspected cases of occupational hearing loss. It is hoped that by providing a greater level of support to the state's hearing health professionals, a greater percentage will begin to report. Throughout the next three years, Project SENSOR's objective is to further reduce the occurrence and burdens related to occupational noise induced hearing loss in Michigan. This newsletter will be published quarterly to provide surveillance updates and information pertinent to identification of occupational noise induced hearing loss. An annual report, detailing all

activites will continue to be prepared and distributed to all audiologists and otolaryngologists in the state. Additionally, Connie Spak, a fellow audiologist will be available to assist you in setting up a program in your place of business to facilitate the identification and reporting of individuals with know or suspected occupational noise induced hearing loss. Please contact the Project SENSOR office with your questions, or to arrange for a consultation by Connie. Enclosed in this newsletter is a copy of the standard occupational disease report form, along with a copy of the Michigan Public Health code regarding occupational disease reporting. Michigan audiologists and otolaryngologists are in a key position to reduce the incidence of occupational hearing loss. Your reporting can improve the quality of life for workers in hazardous environments.

QUESTIONS...

Question: How do I report individuals with known or suspected occupational noise induced hearing loss?

Answer: The standard reporting form provided by the Michigan Department of Consumer and Industry Services is enclosed for your information. Minimally, the information needed is:

- Name, address and phone number of the individual
- Nature of Condition (i.e. high frequency hearing loss)
- Causative Agent (noise exposure)
- Date of Identification (date of your examination)
- Your name, address and phone number

Some practices have developed their own report format and copy the patient's intake sheet and mail it to the MDCIS in Lansing. Copies of audiograms and medical records are not necessary. Reporting can be done daily, monthly or quarterly. We recognize that you are busy caring for patients, dictating reports, filing insurance claims and completing other essential paperwork. The objective is to identify those individuals who are known or suspected to be suffering the effects of occupational disease. Project SENSOR staff would be happy to work with you or your office staff to develop a quick and efficient means to report occupational hearing loss; please contact them at 800-446-7805 We will make every attempt to ensure that reporting will not be a tedious, time consuming effort for you.

Question: I have a client with a high frequency hearing loss. He reported a history of noise exposure at work and recreational use of firearms. How can I be sure that his hearing loss is related to his workplace?

Answer: If you suspect that your client is exposed to excessive noise at work, without ear protection and without a hearing conservation program, this individual should be reported, even if unprotected recreational noise exposure contributed to the hearing loss. OSHA has guidelines for noise standards that employers should be adhering to. You are not asked to make a final judgment as to what percentage of the hearing loss was caused by work and non-work exposures.

Question: What happens when I report an individual with suspected occupational hearing loss?

Answer: When the report is received, the individual will be contacted by a member of the Project SENSOR staff and asked several questions about noise exposure in his current or former workplaces. If the individual chooses not to answer the questions, no further follow up is made. If the individual does report that acurrent or former employment setting exposed him to excessive noise, without appropriate hearing conservation efforts, an inspection of the employment setting may be made. The name of the individual reporting the suspected employee and the name of the employee are strictly confidential.

Question: What consequences do employers face when an employee is reported to have occupational hearing loss?

Answer: If it is determined by interview of the employee that a particular workplace has put employees at risk for occupational noise induced hearing loss and that there is not a hearing conservation program in place, inspectors from Occupational Safety and Health may visit the workplace to evaluate the safety of the work environment. If the inspection finds that the workplace violates health codes for noise exposure, the company will receive a written summary of violations and be given a time line for implementing a hearing conservation program and any other corrective measures deemed necessary. If the company does not make efforts to correct the violation, a fine may be levied. The inspector's job is to verify a health hazard, inform the company of the existence of the violation and assist in implementing corrective measures. A repeat inspection may be conducted to verify that the risk for occupational noise induced hearing loss has been corrected and/or that a comprehensive hearing conservation program is in place.

Question: Why should I report cases of suspected occupational hearing loss?

Answer: Audiologists and otolaryngologists are most frequently the entry point for individuals seeking hearing health care. You can eradicate noise induced hearing loss caused by occupational exposure by reporting known or suspected cases. Occupational noise induced hearing loss is preventable. Your participation will assist in identifying sources of occupational hearing loss and provide safer workplaces for other employees.

Watch for Project SENSOR's educational display booth at the 1998 MSHA Annual Conference in Grand Rapids, March 19-21. Staff will be there to talk with you regarding any issues or questions you may have.

CASE REPORTS

CASE 1

A man in his 30s was employed at a wood manufacturing company for ten years where he ran an

electrical saw. He sought evaluation for hearing difficulties. Audiometric evaluation displayed a high frequency hearing loss. After telephone interview, Project SENSOR staff determined that the man may be exposed to potentially hazardous levels of noise without adequate protection, and an inspector from the Department of Consumer and Industry Services made a site visit. It was discovered that all employees were exposed to noise in excess of 90dBA throughout the work day (92-103dbA range). The company did not have a hearing conservation program and was cited for a serious violation. The company was provided with a detailed description of the violation and given possible remedies to reach compliance. They were given 90 days to comply. Written verification was received that they established a hearing conservation program and further modified the workplace to reduce the noise levels.

CASE 2

A man in his 60s was employed in an automotive parts manufacturing company as a stamping/pressman. The company employed 250 individuals. He sought evaluation for hearing loss, which revealed a high frequency sensorineural configuration. Telephone interview by Project SENSOR staff revealed that the man had one hearing test at the company 20 years ago. Foam earplugs were available to employees who wanted them. An inspection was conducted by the Department of Consumer an Industry Services which revealed that some areas of the company exposed employees to noise in excess of 90dBA the entire day. The company had recently begun to conduct pre-employment hearing tests, but no other measures to routinely monitor hearing, educate employees about the effects o noise or consistent use of ear plugs was being done. The company was cited for a violation and given 90 days to comply with specific recommendations to develop a comprehensive hearing conservation program.

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Michigan Law Requires the Reporting of Known or Suspected Occupational NIHL

Reporting can be done by:	
***FAX**	(517) 432-3606
***Telephone**	1-800-446-7805
***E-Mail**	21770KDR@MSU.EDU
***Mail**	Michigan Department of Consumer and Industry Services
	Division of Occupational Health
	P.O. Box 30649
	Lansing, MI 48909-8149

Suggested Criteria for Reporting Occupational NIHL

1. A history of significant exposure to noise at work; AND
2. A STS of 10dB or more in either ear at an average of 2000, 3000 & 4000 Hz.
3. OR
4. A fixed loss.*

*Suggested definitions:

- a 25 dB or greater loss in either ear at an average of: 500, 1000, & 2000 Hz or 1000, 2000 & 3000 Hz or 3000, 4000 & 6000 Hz
- ***or*** a 15 dB or greater loss in either ear at an average of 3000 & 4000 Hz.