Now Hear This . . .

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Excerpts from the 2002 Annual Report on Occupational Noise-Induced Hearing Loss in Michigan

In August 2003, the 9th annual report on occupational NIHL in Michigan was released. The report summarized the results of the State's ongoing program to track occupational noise-induced hearing loss and noise exposure in the workplace. One of the most important outcomes of this program is to identify noise exposure in Michigan work places where hearing conservation programs are deficient or non-existent. Through MIOSHA enforcement inspections, the State is able to help protect workers from developing hearing loss and prevent further hearing loss among those exposed to high noise levels. This issue of *Now Hear This* highlights some of the main findings from the surveillance program.

Figure 1. All Individuals with Noise-Induced Hearing Loss Reported to the Michigan Department of Consumer and Industry Services: 1985-2002

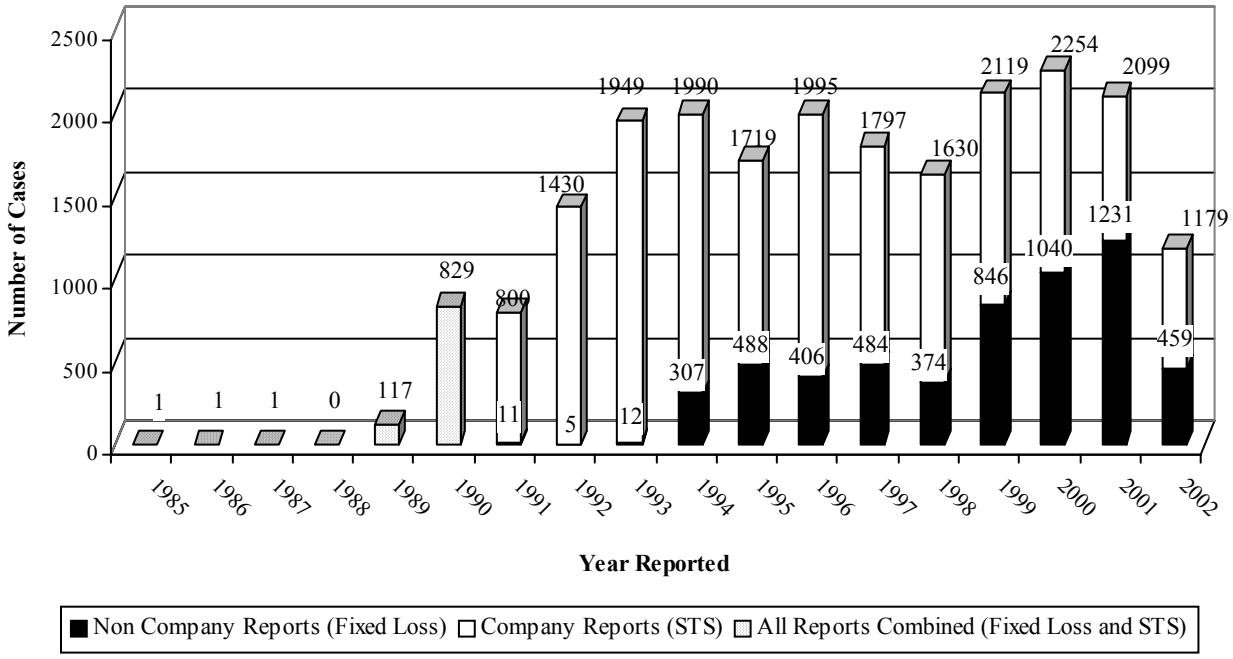

Figure 1 shows the number of noise-induced hearing loss reports received per year. The drop in 2002 can be attributed to one health care provider having over 500 less reports in 2002. The state received 720 reports of standard threshold shifts. We are planning increased efforts in 2003 to identify the cause of these failures in the hearing conservation program.

Table 1 provides estimates of blue collar workers in Michigan who are exposed to excessive levels of noise, by industry type. Based on a survey performed by the National Institute for Occupational Safety and Health, we estimate that there are over 86,000 workers in Michigan who we would expect to have occupational noise-induced hearing loss. We are concerned that many of them are not in hearing conservation programs. (Table 1)

Table 1. Estimates of the Number of Blue-Collar Workers in Michigan Exposed to Excessive Levels of Noise, by Industry Type

Industry (SIC)*	Total Number of Workers**	Percent Range Exposed to Noise***	Number Workers Noise-Exposed
MINING (13)	1,600	23.1	370
CONSTRUCTION (15-17)	155,200	15.6-24.0	25,584
MANUFACTURING (20-39)	635,900	6.5-42.6	137,117
TRANSPORTATION (42)	41,500	7.0	2,905
TRADE (50-59)	242,200	1.4-20.9	27,692
SERVICES (70-89)	637,400	0.6-10.6	9,724

*Standard Industrial Classification (1987 Manual).

**Source: Bureau of Labor Statistics, Michigan Employment Security Commission, Current Employment Statistics. 2001 Annual Report of Michigan Production/NonSupervisory Workers.

***Source: National Institute for Occupational Safety and Health, Criteria for a Recommended Standard, Occupational Noise Exposure Revised Criteria 1998. June 1998, DHHS (NIOSH) Publication No. 98-126, Table 2-1. Percentages are estimates based on data collected in the National Occupational Exposure Survey (NOES). Excessive noise is defined as at or above 85dBA.

Sixty-nine companies were cited for 156 violations of the hearing conservation standard in 2002. The most common citation was a lack of a hearing conservation program when the average noise exposure level equaled or exceeded an 8 hour, time-weighted average of 85 decibels. (Table 2)

Table 2. Violations of the Noise Standard in Michigan: MIOSHA Inspections Conducted 01/01/2002 to 12/31/2002.

		Companies Cited for Standard	
Standard Violated (Part 380. Occupational Noise Exposure)	Number of Citations	Percent*	Percent**
Hearing conservation program (R325.60107)	36	23.1	52.2
Employee training program (R325.60123)	26	16.7	37.7
Access to information and training materials (R325.60124)	19	12.2	27.5
Permissible noise exposure; noise controls (R325.60104)	17	10.9	24.6
Follow-up procedures (R325.60116)	17	10.9	24.6
Noise monitoring program (R325.60108)	10	6.4	14.5
Annual audiogram (R325.60114)	9	5.8	13.0
Audiometric testing program (R325.60112)	8	5.1	11.6
Impact or impulse noise (R325.60106)	5	3.2	7.2
Evaluation of audiogram (R325.60115)	3	1.9	4.3
Baseline audiogram (R325.60113)	2	1.3	2.9
Hearing protectors (R325.60121)	2	1.3	2.9
Hearing protector attenuation (R325.60122)	2	1.3	2.9
Total	156	100.0	

*Percentages based on a total of 156 violations.

**A company may be cited for more than one type of violation, therefore these percentages are based on a total of 69 companies cited.

The lack of regulations requiring audiometric testing for construction workers is an ongoing problem. However, there has been an increase in each succeeding decade in the percentage of construction workers provided hearing protection. (Table 3)

Table 3. Most Recent Decade Where 688 Patients With Noise-Induced Hearing Loss Were Exposed to Noise in the Construction Industry: Status of Regular Hearing Tests and Use of Hearing Protection: Michigan 1992-2002

	Total Individuals		Regular Hearing Tests Yes		Given Hearing Protection Yes	
Decade	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
1930-1949	2	(0.4)	0	—	0	—
1950-1959	8	(1.5)	0	—	1	(14)
1960-1969	24	(4.6)	0	—	1	(6)
1970-1979	39	(7.5)	2	(7)	7	(24)
1980-1989	120	(23.0)	7	(9)	19	(28)
1990-1999	227	(43.6)	7	(4)	88	(62)
2000-2002	101	(19.4)	7	(12)	45	(70)
Total	521*	(100.0)	23**	(7)	161***	(49)

*Decade was unknown for 167 individuals.
**Whether or not provided regular hearing tests was unknown for 177 individuals.
***Whether or not provided hearing protection was unknown for 190 individuals.

NOW AVAILABLE

The
2002 Annual Report
on
Noise-Induced Hearing Loss
in Michigan

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or

Order a copy today by:

⇒ Returning the enclosed postcard
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WORK-RELATED HEARING LOSS FACT SHEET

We have developed a fact sheet to hand out to your patients where you think that exposure to noise at work has been a significant contributor to your patient's hearing loss.

The fact sheet discusses potential treatment/ management options and the State's interest in receiving a report on patients where work-related noise is a significant contributor to hearing loss (for ways of reporting, see back panel).

If you are interested in receiving copies of the fact sheet for distribution in your practice, please call us at 1-800-446-7805 or email us at Amy.Sims@ht.msu.edu

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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
ODREPORT@ht.msu.edu
Web
www.chm.msu.edu/oem
Mail
MDCIS Occ Health Div
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 10 dB or more in either ear at an average of 2000, 3000 & 4000 Hz. OR
3. 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.

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In this issue:
Excerpts for the 2002 Annual Report

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