

Now Hear This . . .



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Excerpts from the 2001 Annual Report on Occupational Noise-Induced Hearing Loss in Michigan

In August 2002, the 8th annual report on occupational NIHL in Michigan was released. The report summarizes the results of the State's ongoing program to track excessive noise in the workplace. One of the most important outcomes of this program is to identify excessive noise 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.

Reports of work-related NIHL are regularly submitted to the State by company medical departments (when they have hearing conservation programs in compliance with the State's noise regulation) as well as by practicing audiologists and otolaryngologists. There are some marked differences in the types of reports submitted by companies compared to independent audiologists and otolaryngologists. One of the most dramatic differences in these two sources of reports is the type of industries where the workers with occupational NIHL are or were exposed to noise. Workers reported by their company tend to work in the auto manufacturing industry. In contrast, workers reported by independent hearing health professionals are exposed to excessive levels of noise in many other industries such as

Table 1. Industry of Individuals Reported to the MDCIS in the Year 2001, by Companies and Private Practice Hearing Health Professionals

Industry	STS Cases Reported by Companies		Fixed Hearing Loss Reported by Private Practitioners	
	Number	Percent	Number	Percent
Agriculture	0	—	6	(0.6)
Construction	0	—	115	(10.6)
Manufacturing	850	(97.9)	736	(68.0)
Transportation	0	—	63	(5.8)
Trade	0	—	17	(1.6)
Finance	0	—	6	(0.6)
Services	18	(2.1)	111	(10.3)
Government	0	—	28	(2.6)
TOTAL	868	(100.0)	1,082	(100.1)*

*Percentages do not add to 100% due to rounding.

agriculture, construction, and services. Table 1 shows the distribution of the industries where company-reported versus private practice reported hearing loss cases worked.

The surveillance program that tracks work-related NIHL devotes a significant amount of time conducting interviews of the workers with hearing loss in order to understand more about the sources of exposure to noise at work. In addition, the interviews ask about the use of hearing protection devices such as plugs or muffs, and whether the company provides regular hear-

ing testing. Not surprisingly, the responses differ by type of industry. Overall, about 44% of the workers who were exposed to high levels of noise in their jobs were provided regular hearing testing. Table 2 illustrates some of these differences.

Table 2. Michigan Workers with Fixed Hearing Loss: Industry and Performance of Regular Hearing Testing

Industry	Percent of Workers Who Had Regular Hearing Testing
Agriculture	10
Mining	50
Construction	7
Wood Manufacturing	14
Paper Manufacturing	71
Foundry	27
Auto Manufacturing	61
Transportation	53
Trade	13
Auto Repair	6
Health Services	29
Educational Services	39
Military	31

Over time, there have been marked improvements within industries in the use of hearing protection devices as well as in the provision of regular hearing tests. Some industries, such as manufacturing have seen a greater improvement than others such as construction. This is, in part, related to the laws that cover certain industries. Some industries such as agriculture, construction, transportation and mining are not covered under the more stringent noise regulation as is, for example, the manufacturing industry. Table 3 (see page 3) shows the changes over time in the percentage of workers receiving regular hearing testing.

MIOSHA enforcement inspections are conducted in cases where the interview with the noise-exposed worker indicates that no regular hearing testing is done at their company, as long as the individual has recently worked there, the

company falls under MIOSHA jurisdiction, and has not been recently inspected for noise-related issues. Since 1992 when surveillance for occupational NIHL began, 101 MIOSHA enforcement inspections have been conducted. Of the 101 companies, 57 (56%) had sufficient noise levels that warranted a hearing conservation program (HCP). Of those 57 companies, 43 (75%) were found to have a deficient or absent HCP. In those cases the companies were required by law to institute or improve their HCP. Almost 6,000 co-workers from the companies that were inspected benefited from the MIOSHA inspectors' findings. Table 4 (see page 3) describes the results of these inspections.

Since 1992, the State has been tracking occupational NIHL in an effort to understand and reduce the burden of this preventable condition among Michigan workers. The continued support of the State's hearing health professionals is critical to the hearing health of its workers.

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on
Noise-Induced Hearing Loss
in Michigan*

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Table 3. All Interviewed Individuals with a Fixed Hearing Loss: Decade Last Worked and Status of Regular Hearing Testing at Most Recent Company Exposed to Noise, by Industry Type: Michigan 1992-2001

Industry Type (SIC)*	<u>Decade Last Exposed to Noise and Hearing Testing Status (Percent)</u>							
	1930's	1940's	1950's	1960's	1970's	1980's	1990's	2000's
Agriculture/Forestry (01-08)	—	0	0	0	0	17	9	0
Mining (10-14)	—	—	—	—	0	50	57	100
Construction (15-17)	—	—	0	0	9	8	4	11
Manufacturing (20-39)	100	8	5	0	13	45	66	76
Transportation (40-49)	—	—	—	33	27	31	62	48
Trade (50-59)	—	—	0	100	0	0	12	20
Finance (60-67)	—	—	—	—	0	—	0	—
Services (70-89)	—	0	0	0	0	12	32	35
Public Administration (91-97)	—	—	0	0	0	41	36	29

*Standard Industrial Classification (1987 Manual).

Table 4. One Hundred-One Companies Inspected Where Individuals Reported They Had Not Received Audiometric Testing: Michigan 1992-2001

Industry (SIC)*	Total Inspections		Hearing Conservation Program (HCP) Required		Citation Issued				Total Number of Employees Exposed to Noise	
					HCP Deficient		HCP Absent		HCP Deficient	HCP Absent
	#	%	#	%	#	%	#	%	#	#
Agricultural Services (07)	1	(1.0)	1	(100.0)	0	—	0	—	—	—
Construction (15-17)	2	(2.0)	**	—	0	—	1	(50.0)	—	562
Manufacturing (20-39)	73	(72.3)	46	(63.0)	23	(50.0)	12	(26.1)	3,000	1,460
Transportation (40-49)	3	(3.0)	0	—	0	—	0	—	—	—
Trade (50-59)	7	(6.9)	1	(14.3)	0	—	1	(100.0)	—	14
Services (70-89)	9	(8.9)	5	(55.6)	0	—	3	(60.0)	—	40
Government (91-97)	6	(5.9)	4	(66.7)	3	(75.0)	0	—	708***	—
TOTAL	101	(100.0)	57	(56.4)	26	(45.6)	17	(29.8)	3,708	2,076

*Standard Industrial Classification (1987 Manual).
 **Construction has separate regulations that require a less comprehensive program.
 ***Number of employees unknown for 1 company.

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Now Hear This...

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In this issue:
 Excerpts from the 2001 Annual Report

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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 ODRREPORT@ht.msu.edu
Web www.chm.msu.edu/ocm
Mail MDCIS Div. of Occ. 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 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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