

Now Hear This . . .



Volume 7, No. 2

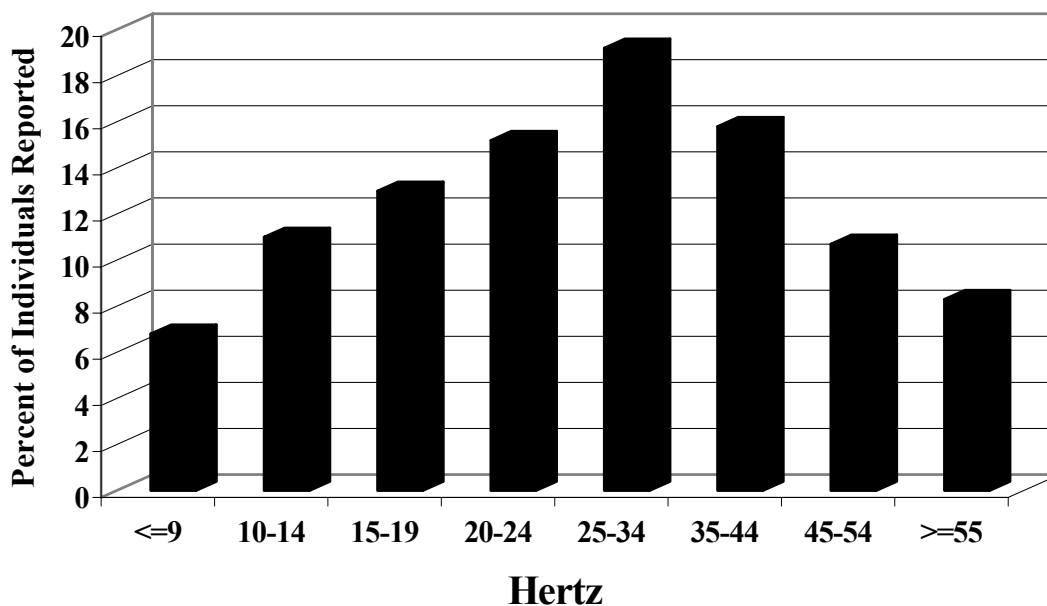
Summer 2004

Excerpts from the 2003 Annual Report on Work-Related Noise-Induced Hearing Loss in Michigan

In August 2004, the 10th annual report on work-related 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. This is the first year that audiometric results have been compiled.

**Figure 1. All Interviewed Individuals with Hearing Loss:
Average 1000, 2000, 3000 Hertz Hearing Loss in Both Ears: Michigan 2003**



The severity of hearing loss being reported is significant. Fifty-five percent of the individuals reported had an average hearing loss equal to or greater than 25 decibels at 1000, 2000, 3000

Hertz. These individuals meet the NIOSH criteria for "material hearing impairment." (Figure 1) Approximately half have tinnitus (Table 1, page 2).

Table 1. All Interviewed Individuals with Hearing Loss: Bothered by Ringing, Roaring or Buzzing: Michigan 2003

	Number	Percent
No	336	54
Yes	288	46
Daily Symptoms	153	(54)
Weekly Symptoms	59	(21)
Monthly Symptoms	39	(14)
Seldom Symptoms	30	(11)

Work is not the only source of noise (Table 2). Significant noise exposure occurs from hobbies and tools used around the house. Other than noise from firing ranges and chainsaws, hearing

protection devices are used less than 50% of the time. Hearing conservation programs need to emphasize the importance of using hearing protection devices whatever the source of noise.

Table 2. All Interviewed Individuals with Hearing Loss: Non-Work Noise Exposures: Michigan 2003

	Yes		Hearing Protection <i>Always or Usually</i>		Average Year Began <i>Always or Usually</i>	
	Number	Percent	Number	Percent		
Hunting	258	41	51	20	45	1979
Target Shooting	139	22	117	85	99	1981
Snowmobiling	86	14	19	22	11	1974
Power Tools	144	23	64	45	59	1986
Chain Saw	138	22	73	54	58	1988
Loud Music	85	14	1	1	1	1993
Motor Boat/Jet Ski	76	12	3	4	2	1984
Lawn Work	430	69	109	26	100	1991
Other	97	16	32	33	28	1985
Any	520	83	266	51	234	1984


Now Available


The
2003 Annual Report
on
Noise-Induced Hearing Loss
in Michigan



Download a copy at:
www.chm.msu.edu/oem
 (Annual Report link)

or

Order a copy today by:

☺ Returning the enclosed postcard
 ☺ E-mail: ODREPORT@ht.msu.edu
 ☺ Telephone: 1-800-446-7805

The occurrence of audiometric testing and use of hearing protection increases with the frequency of noise at work (Table 3). The average year hearing protection began to be used is relatively recent (1980's) and suggests the ongoing occurrence of hearing loss among workers who currently work for employers with

hearing conservation programs. Further investigation is needed to examine the association of increased injuries with frequency of noise occurrence. Is this related to an effect of noise or to the fact that noisier jobs may have more safety risks (i.e. more likely manufacturing).

Table 3. All Interviewed Individuals with Hearing Loss: Provision of Regular Hearing Testing, Hearing Protection, Year Began Using Hearing Protection and Occurrence of Work Injuries by Self Report of Noise: Michigan 2003											
	Noisy All the Time		Noisy Most of Time		Noisy Sometimes		Noisy Seldom		Noisy Rarely/Never		
	#	%	#	%	#	%	#	%	#	%	
Regular Hearing Testing	337	(63)	50	(50)	61	(40)	15	(48)	4	(27)	
Hearing Protection	448	(82)	79	(76)	107	(65)	25	(66)	7	(29)	
Avg Year Began Use	351	1986	54	1988	75	1987	12	1992	5	1981	
Work Injuries	242	(45)	40	(38)	42	(26)	7	(18)	3	(13)	

If an individual reported with hearing loss indicates they have not been provided regular audiometric testing or hearing protection devices at work, then there is a high likelihood that the company where the individual works

either does not have (23%) or has a deficient (17%) hearing conservation program (Table 4). A large number of fellow workers (over 6,000), also exposed to noise, have benefited from these inspections (Table 4).

Table 4. One Hundred Eighteen Companies Inspected Where Individuals Reported They Had Not Received Audiometric Testing: Michigan 1992-2003											
	Total Inspections		Hearing Conservation Program (HCP) Required		Citation Issued				Total Number of Employees Exposed to Noise		
	#	%	#	%	HCP Deficient	HCP Absent	HCP Deficient	HCP Absent	#	#	
Industry	#	%	#	%	#	%	#	%	#	#	
Agricultural Services	1	(1)	1	(100)	0	—	0	—	—	—	
Construction	2	(2)	*	—	0	—	1	(50)	—	562	
Manufacturing	87	(74)	52	(60)	24	(46)	15	(29)	3,251	1,492	
Transportation	3	(3)	0	—	0	—	0	—	—	—	
Trade	8	(7)	1	(14)	0	—	1	(100)	—	14	
Services	11	(9)	5	(56)	0	—	3	(60)	—	40	
Government	6	(5)	4	(67)	3	(75)	0	—	708	—	
Total	118		63	(53)	27	(23)	20	(17)	3,959	2,108	

*Construction has separate regulations that require a less comprehensive program.

Now Hear This...

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

Address service requested.

In this issue:
Excerpts from the 2003 Annual Report

Printed on recycled paper.

**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 MIOSHA-MTS Division
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.

Project SENSOR Staff
*At the Michigan Occupational Safety
& Health Administration (MIOSHA)*
Douglas J. Kalinowski, C.I.H., M.S.,
Director
MI Occ Safety & Hlth Admin
Project SENSOR, Co-Director
John Peck, C.I.H., M.S., Chief
Management & Technical Svcs Div
Byron Panasuk, I.H.
Project SENSOR Specialist
*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 Sims, B.S.,
Project SENSOR NIHL Coordinator
Project SENSOR Office Staff:
Tracy Carey
Ruth VanderWaals
Patient Interviewers:
Leigh Anne Flore Diana Okuniewski
Noreen Hughes Francisco Terrazas
Amy Krizek

Advisory Board
Phyllis Berryman, RN
Michigan Occupational
Nurses' Association
Patricia Brogan, Ph.D.,
Wayne State University
Kenneth R. Bouchar, Ph.D., CCC-A, FAAA
Michigan Speech-Language-
Hearing Association
Jerry Punch, Ph.D.,
Michigan State University
Constance Spak, M.A., CCC-A
University of Michigan
Michael Stewart, Ph.D.,
Better Hearing
Central Michigan University
Jeffrey Weingarten, M.D.,
Michigan Oto-Laryngological Society
Now Hear This is published quarterly by Michi-
gan State University-College of Human Medicine
with funding from the Michigan Occupational
Safety & Health Administration (MIOSHA) and
is available at no cost. Suggestions and com-
ments are welcome.
(517) 353-1846
MSU-CHM
117 West Fee Hall
East Lansing, MI 48824-1316