

Excerpts from the 2001 Annual Reports

Elevated Blood Lead Levels in Michigan

A number of provisions of the workplace standard for lead are to prevent lead being brought home on the worker's clothes and shoes. Forty to fifty percent of workers with elevated blood lead report that they are not provided clean lockers for their street clothes with a separate locker for their lead contaminated work clothes, or their work clothes are not laundered at work, or there are no showers at work. The absence of these preventive controls are reflected in the data which show 44% of children under age of six in the homes of adults with elevated blood lead levels also have elevated blood lead levels (Table I).

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Elevated Blood Lead Levels
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Table I. Number of Households with Children (6 or under) Potentially Exposed to Take-Home Lead from Michigan Adults with Blood Lead Levels (BLLs) of ≥ 10 $\mu\text{g}/\text{dL}$, Interviewed from 10-15-1997 to 12-31-2001

Description of Households	TOTAL	
	Number	Percent
Households with Children living or spending time in house	179	(32.1)*
Households with Children tested for Lead	37	(22.4)**
Households where Children had elevated Lead levels	14	(43.8)***

*Percentage of households with children living or spending time in house.

**Percentage of households with children living or spending time in house where the children were tested for lead. Because of missing data the denominator is less than the number with children living or spending time in the first row of the table.

***Percentage of households with children living or spending time in house where children, who had blood lead tests, had blood lead levels ≥ 10 $\mu\text{g}/\text{dL}$. Because of missing data, the denominator is less than the number tested for lead in the second row of the table.

Summary of Occupational Disease Reports

Thirty-five percent of occupational disease reports are received from individual practitioners and sixty-five percent from company medical departments. Table II shows that most individual practitioners who reported only submitted one report in the year and that four practitioners report eighty-nine percent of all the reports from individual practitioners. We receive reports from 1.2% of the estimated doctors in the state. Further outreach to encourage physicians to comply with the law is planned.

Work-Related Asthma in Michigan

The purpose of Michigan's occupational disease reporting law is to prevent the occurrence of additional work-related disease. In the traditional public health model, the reported case is considered a sentinel case indicating a breakdown in exposure controls. In 2001, 20 work-site investigations were conducted to follow-up

reports of individuals with work-related asthma. These investigations are summarized in Table III. Interviews of workers in the same area as the sentinel case indicated that on the average 20% were experiencing daily or weekly symptoms of shortness of breath, chest tightness, wheezing or cough in association with work. Following up sentinel cases of work-related asthma has proved useful in identifying problem worksites.

Silicosis in Michigan

Even for a chronic disease such as silicosis where typically the individual reported has retired and may not have been exposed to silica for 10-20 years, follow-up workplace investigations to the facility where the sentinel case was exposed to silica have identified ongoing problems. Table IV shows that 61% of facilities identified by a report of a case of silicosis have air exposure levels above the National Institute for Occupational Safety and Health recom-

Table II. Number of Occupational Disease Reports Submitted by Non-Company Health Practitioners

Number of Reports	Health Practitioners		Number of Patients Represented
	Number	Percent	
1	251	(81.0)	251
2-5	38	(12.3)	99
6-10	5	(1.6)	33
11-20	9	(2.9)	121
21-100	3	(1.0)	90
101+	4	(1.3)	4659
Total ^a	310	(100.1) ^b	5253

^a 1,204 reports were submitted by labs for lead poisoning, representing 179 clinicians. These are not included in the above statistics.
^b Percent does not add to 100 due to rounding.

Table III. Summary of Work-Site Investigations Performed in 2001, Michigan

Type of Work-Site	Number	Exposure
Auto Manufacturing	8	Lube Oil, Isocyanates, Anhydride, Colophony
Bakery	2	Flour
Carbide Tool	2	Cobalt
Fiberglass Manufacturing	2	Formaldehyde, Phenol
Machine Manufacturing	2	Metal Working Fluids (MWF)
Conveyor Belt Manufacturing	1	Isocyanates
Hospital	1	Isocyanates
Pharmaceutical	1	Psyllium
Bow & Arrow Manufacturing	1	Epoxy

Table IV. Results of Industrial Hygiene Inspections of 76 Facilities Where Individuals Confirmed with Silicosis for the Years 1985-2001 were Exposed to Silica

	Number of Companies	Percent
Air Sampling Performed	54	
Above NIOSH* Recommended Standard for Silica	33	(61.1)
Above MIOSHA** Enforceable Standard for Any Exposure	21	(38.9)
Above MIOSHA Enforceable Standard for Silica	21	(38.9)
Medical Surveillance Evaluated	64	
Periodic Chest Xrays with B Reader	6	(9.4)
Periodic Chest Xrays without a B Reader	3	(4.7)
Pre-employment Testing Only	19	(29.7)
No Medical Surveillance	24	(37.5)
Periodic Pulmonary Function Testing	16	(25.0)

*NIOSH=National Institute for Occupational Safety and Health.
**MIOSHA=Michigan Occupational Safety and Health Act.

mended standard. The use of chronic occupational diseases as sentinel cases has proven successful in identifying ongoing exposure.

Work-Related Noise-Induced Hearing Loss

One hundred and one workplace inspections have been performed to follow-up reports of hearing loss. Because of ongoing noise exposure, a hearing conservation program was re-

quired to be in place at 57 (56.4%) of these facilities. Of the 57 facilities 17 had no hearing conservation program and 29 had deficient programs for which they received a citation. Over 5,000 workers working in these facilities were exposed to noise and will potentially benefit by having an effective hearing conservation program which will be initiated in response to the inspection (Table V).

Table V. 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 employees unknown for 1 company.

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Reporting forms can be obtained by
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Project SENSOR Staff
*At the Michigan Department
of Consumer and Industry Services*
Douglas J. Kalinowski, C.I.H., M.S.,
Deputy Director
Bureau of Safety and Regulations
Project SENSOR, Co-Director
Bill Delfiede, M.P.H.
Regional Supervisor
Project SENSOR-MDCIS Liaison
John Peck, C.I.H., M.S., Chief
Occupational Health Division
Debbie Wood
Division Chief Secretary
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MSU-CHM
117 West Fee Hall
East Lansing, MI 48824-1316